



# Analysis of Associated Risk of Non-utilisation of Contraceptives by Undergraduate Students in Nigerian University

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**Abstract:** This study focused on the risk of non-utilisation of contraceptives among Olabisi Onabanjo University undergraduate students. The challenges considered were the level of awareness, knowledge, usage and opinion of the undergraduate students about contraceptive usage. The primary data used was obtained from 300 questionnaires administered where 250 were completed and returned. Descriptive statistics were used to describe the socio-demographics of contraceptive usage. Chi-square test and Binary logistic regression were utilised to test the variables' significance and association. The findings revealed a strong correlation between permanent residence, sex, age group, and faculty of respondents with contraceptive usage. Urban students, young undergraduates, faculty with large students, and female respondents used contraceptives more. The binary logistic regression results indicated a significant linear relationship between the risk of non-utilisation of contraceptives and stillbirth with a binary logistic regression coefficient of 3.069 and p-value = 0.001. The study signified the risk of non-utilisation of contraceptives during sexual intercourse which results in STDs from unmarried partners, leading to stillbirth in females and critical health issues in male respondents. The study concludes that there is reasonable knowledge, awareness, and usage of contraceptives among undergraduate students, but more awareness is needed to prevent unwanted pregnancy and STDs.

**Keywords:** Binary logistic regression; Chi-square; Contraceptives; Non-utilisation; Questionnaire

## Introduction

The sexuality of people is experienced and expressed through sexual behaviour (Chrastina & Večeřová, 2020; Brown, 2013). In addition, it refers to any sexually stimulating action which takes place within a group or between two individuals (Brian et al., 2016). The sexual behaviour of an individual is to a large extent a function of the inherited sexual response pattern or the extent of the restraint exerted on the individual by society (Odimegwu 2005; Osadolor et al., 2022). Sexual behaviours which cause the possibility of disease transmission or unintended pregnancy involve

possessing numerous lovers, engaging in unprotected oral, anal, and vaginal sex, employing defective forms of contraceptives and switching up lovers (Visalli et al., 2019; Omisore et al., 2022; Jahanfar & Pashaei, 2022). The definition of risky sexual behaviour is the possibility of acquiring STDs and becoming pregnant against one's will (Omisore et al., 2022). According to Dumbili, (2016) & Shrestha, (2019), sexual behaviour at a tender age, having several lovers, using illicit substances while having intercourse, and engaging in exposed sexual behaviour can all result in STDs, unintended pregnancies, and occasionally emotional consequences of sexual violence.

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In Nigeria, sexual activities are exponentially increasing among undergraduate students in higher institutions of learning in a very rapid trend (Okonkwo, 2018; Ayinmoro et al., 2020, Thorne et al., 2023). It has also been noted how a lot of cultural norms have evolved quickly and become worse. One area of life where this is particularly evident is sexuality (Odi et al., 2020). A significant turnaround is the willingness to engage in sex before marriage between two unmarried undergraduate students in a relationship or not (Kolawole et al., 2014; Okah et al., 2023). Despite the deep cultural values in Nigeria, in recent times Since our society appears to be afflicted with deteriorating moral standards and values, this no longer influences young people (Nwosimiri 2021; Ajayi et al., 2022). These lost values have major effects on Nigerian youth in various higher institutions that spread around the country (Adebayo 2013; Adetayo 2022). Without considering the repercussions, they engage in drug abuse, homosexuality, abortion, premarital sex and indecent attire (Charlton et al., 2020; Kimport & Littlejohn, 2021).

Several previous research studies have been conducted about the usage of contraceptives and among the works is that of Abdul et al. (2020) where they assessed behaviours and attitudes that underlie contraceptive usage within University of Ilorin feminine students. Their results signified contraceptive usage was high but is often used by married respondents among the students. Ezebialu & Eke (2013) assessed the awareness and utilisation of emergency contraception by undergraduate students in Nigeria and revealed that only 51.6% of the respondents have contraceptive usage knowledge, with factors such as sexual activity, frequent methods of birth control and the chance of an unwanted pregnancy influencing knowledge. However, only 45.7% were aware of the proper techniques, and 37.9% practised it. They suggested integrating approved courses on emergency contraception and issues related to reproduction in Nigerian undergraduate curricula. Ajayi et al. (2017) discussed emergency contraceptive methods as a crucial tool for undergraduate students and young women in sub-Saharan Africa, particularly among female students. They disclosed that young people with education frequently partake in risky sexual behaviours and use dangerous forms of birth control, highlighting the need for better education and awareness about contraception usage. Ezenwaka et al. (2020) used their study in Nigeria to find that adolescents face barriers to contraceptive services, including lack of awareness, low self-worth, incapacity to pay for services, and worries about adverse consequences. Familial-focused issues, health system issues, societal norms, and economic conditions also hinder access. Their results indicated that addressing these barriers could improve access and reduce

unwanted teenage pregnancy. Utoo et al. (2020) investigated to find out how many female undergraduate students in Nigeria used contraceptives and engaged in sexual activity. Out of 431 students, 70.5% were sexually active, with 41.8% having multiple partners. They found that contraceptive awareness and usage were high, with male condoms being the most common. They also found that most respondents thought using contraceptives could help avoid getting pregnant and STDs. They concluded a deep correlation existed within usage, perception and degree of education. Dorji et al. (2022) studied the use, knowledge, and attitude of 1,283 students on contraceptives, focusing on the potential for unplanned pregnancies and STIs. Their results showed that students had STI awareness and attitudes were generally positive, however, university students' utilisation of contraception remained minimal. The study suggests the need for improved health education and accessibility of all forms of contraceptives, particularly condoms, to sexually active individuals.

The discussion above signified the rapidly growing challenges among Nigerian undergraduates concerning risky sexual behaviour, low and non-usage of contraceptives, early exposure to sex, and emergency usage of contraceptives which can be detrimental to their academic life and society. This study will be used to discuss and analyse the level of knowledge, awareness, and usage of contraceptives as a way of protection against unwanted pregnancy and STDs. In essence, this work becomes paramount since an investigation into the knowledge level, contraceptive usage, awareness and non-usage risk among undergraduate students is very important since the associated risk of non-utilisation of contraceptives can lead to unwanted pregnancy, STDs and many more. The analyses will be carried out using Chi-Square test, Binary Logistic regression and Descriptive Statistics. The data used in this study will be based on primary sources obtained using the Questionnaire method, which is administered to students of Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria.

## Method

### *Study Area*

The main campus of Olabisi Onabanjo University, which is situated in Ago-Iwoye, Ogun state, Nigeria, was the location of the study. The students stay off campus in towns like Ago-Iwoye, Awa-Ijebu, Oru-Ijebu, Ijebu-Igbo and Ilaporu. These are small and enclosed towns where students make up most of the populace. This institution is chosen since the environment gives room for risky sexual behaviours which comes with non-

usage of contraceptives, early exposure to sex and emergency usage of contraceptives.

*Data source*

The source of data in the study is the primary source. The data was collected using a Questionnaire administered to students of Faculties of Science, Administration and Social Sciences. Three hundred (300) questionnaires were administered to respondents while two hundred and fifty (250) questionnaires were fully completed and returned. Therefore, the analysis was based on two hundred and fifty (250) questionnaires with a response rate of 83.3%.

*The Chi-square ( $\chi^2$ ) test*

A unique test of significance called the chi-square ( $\chi^2$ ) is utilised to determine whether the theory and the facts agree (or whether observed and expected values agree). It is expressed as

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \tag{1}$$

it has a (n-k) degree of freedom, n is the number of observations, k is the number of parameters,  $O_i$  and  $E_i$  are the observed and expected values.

*Contingency table test*

Two categorical variables will be arranged in r rows and c columns of an  $r \times c$  contingency table, with the observed frequencies for each variable totaling n, the sample size. The sum of the frequencies is represented by the row and column totals. The sample size is indicated by the sum of the row and column totals, n. Each cell in the contingency table's row I and column j correspond to an observed frequency. The expected value ( $E_{ij}$ ) is determined as

$$E_{ij} = \frac{\text{Row total}}{\text{Sample size}} \times \frac{\text{Column total}}{\text{Sample size}} \times \text{Grand Total} \tag{2}$$

*Test procedure*

Chi-square ( $\chi^2$ ) and contingency table tests follow the following procedures:

- Describe null and the alternative hypotheses.
- Take a random sample, note the observed frequencies in each contingency table cell, and compute the totals for the row, column and overall.
- Determine every cell's expected frequency.
- Determine the test statistic's value.
- Determine the degrees of freedom.
- Construct the critical region.
- Draw a decision and conclusion.

*Binary Logistic Regression*

The dependent variable in logistic regression is a logistic transformation of the odds or logit.

$$\log(\text{odds}) = \text{logit}(P) = \ln\left(\frac{P}{1-P}\right) \tag{3}$$

The logistic regression is created by taking the dependent variable in log(odds) and adding a regression equation for the independent variables. That is:

$$\log(p) = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots \tag{4}$$

The relationship that exists between the logit(P) and X is taken to be linear, just like in least-squares regression. Consequently,

$$P = \frac{\exp(a+b_1x_1+b_2x_2+b_3x_3+\dots)}{1+\exp(a+b_1x_1+b_2x_2+b_3x_3+\dots)} \tag{5}$$

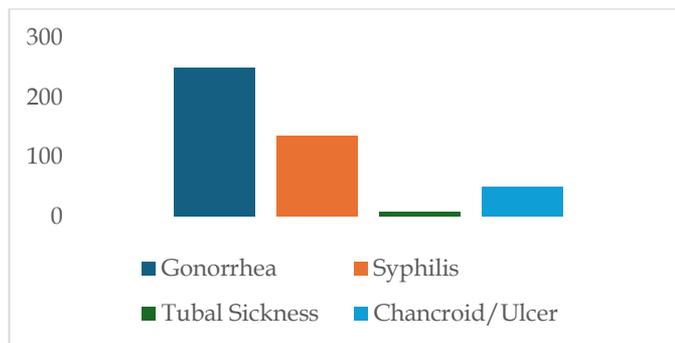
where a is constant, b is predictor variables, exp is the exponential function and P is the likelihood that a case falls into a given category.

**Result and Discussion**

The primary data used in the research was collected using the Questionnaire method of data collection. Three hundred (300) questionnaires were administered to respondents while two hundred and fifty (250) were fully completed and returned. Therefore, the analysis was based on two hundred and fifty (250) questionnaires with a response rate of 83.3%. Table 1 was used to present respondents' mean age to be 21.25 years and standard deviation at 1.43. Most of the respondents were between 16-22 years and this implied 84.0% of the respondent's age range is 16 to 20 years. 56.4% of the respondents were in 300 level and 42.0% were from the Faculty of Administration, 96% lived in university off-campus hostels. Table 1 was also used to show that 64.8% were single but in a serious romantic relationship and this implies many undergraduate students are exposed to sex before the age of 23 years. Table 2 was used to show that 74.4% of the respondents have a good knowledge about contraceptives, this was based on the result obtained from the assessment of the knowledge about contraceptives, where any respondents with knowledge above 40% were believed to have a good knowledge about contraceptives, 97.2% heard about different types of contraceptives, 58.0% has been able to use at least one type contraceptives, 54.4% got their knowledge about contraceptives from the media while 87.2% agreed that using contraceptives is a way to avoid being infected or prevent unwanted pregnancy.

**Table 1.** Socio-Demographic Characteristics of Respondents

Variables	Frequency (n=250)	Percentage (%)
Mean age ± SD of respondents =		
21.25± 1.43		
<i>Age distribution</i>		
≤17	9	3.6
18-22	210	84.0
≥24	31	12.4
<i>Sex of respondents</i>		
Male	85	34.0
Female	165	66.0
<i>Level of study of respondents</i>		
100 Level	59	23.6
200 Level	72	28.8
300Level	73	29.2
400Level	48	19.2
<i>Faculty of respondents</i>		
Science	79	31.6
Administration	105	42.0
Social Science	66	26.4
<i>Place of residence in the University</i>		
In university hostel	10	4.0
Off-campus	240	96.0
<i>Current relationship status of respondents</i>		
Single, no romantic and/or intimate relationship	88	35.2
Single in a steady romantic and/or intimate relations	162	64.8



**Figure 1.** Common Types of STDs Known by Respondents

**Table 2.** Knowledge of Respondents about Contraceptives

Variables	Frequency (n=250)	Percentage (%)
<i>List knowledge of contraceptives known by respondents</i>		
Good knowledge	186	74.4
poor knowledge	64	25.6
<i>Have you ever heard of contraceptives</i>		
Yes	243	97.2
No	7	2.8
<i>Ever used contraceptives before</i>		
Yes	145	58.0

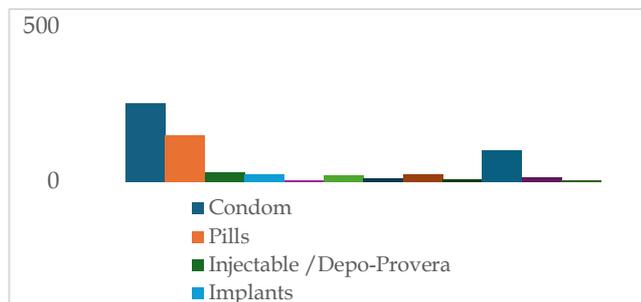
Variables	Frequency (n=250)	Percentage (%)
No	105	42.0
<i>Source of knowledge about contraceptive</i>		
Media	136	54.4
Family/friends	52	20.8
Health workers	48	19.2
School	14	5.6
<i>Reason for using contraceptives</i>		
To prevent unwanted pregnancies	52	20.8
To prevent STDs/HIV/AIDS	13	5.2
Pleasure	80	32.0
I have never used it before	105	42.0
<i>Can one get HIV/AIDS and STDs through sex?</i>	16	4.8
Yes	250	100.0
<i>Can a healthy-looking person have HIV/AIDS/STDs</i>		
Yes	220	88.0
No	30	12.0
<i>Family planning is a way to avoid being infected or done away with unwanted pregnancy</i>		
Yes	218	87.2
No	32	12.8

**Table 3.** Contraceptives known and used by respondents

Variables	Frequency (n=250)	Percentage (%)
Condom	250	100.0
Pills	130	52
Injectable /Depo-Provera	30	12
Implants	25	10
Intrauterine devices	5	2
Female sterilisation	20	8
Vasectomy	12	4.8
Diaphragm	25	10
Spermicides	8	3.2
Withdrawal	102	40.8
Periodic abstinence	15	6
Lactation amenorrhoea	5	2

Furthermore, Figure 1 was used to display the types of STDs known by the respondents and 250 respondents know about Gonorrhoea, 135 are aware of Syphilis, 50 have heard of chancroid/ulcer and 50 respondents have heard about Tubai sickness. Table 5 was used to present the opinion of the respondents on contraceptives and from Table 1, 49.6% strongly agreed and 48% disagreed that undergraduate students should be encouraged to use contraceptives. 61.6% agreed that it should be added to the school curriculum, 66.0% agreed strongly that contraceptive utilisation could reduce infectious disease

transmission, 76.8% agreed to encourage others in the use of contraceptives while 62.4% strongly agreed that the Government should be strongly involved in the promotion of the use of contraceptives.



**Figure 2.** Type of Contraceptive Commonly Used by Respondents

**Table 4:** The Associated Risk of STDs

Variables	Frequency (n=250)	Percentage (%)
<i>Rash</i>		
Yes	162	64.8
No	112	35.2
<i>Discharge</i>		
Yes	233	93.2
No	17	6.6.0
<i>Ulcer</i>		
Yes	105	42.0
No	145	58.0
<i>Painful intercourse</i>		
Yes	145	58.0
No	105	42.0
<i>Infertility</i>		
Yes	172	68.8
No	78	31.2
<i>Painful urination</i>		
Yes	215	86.0
No	35	14.0
<i>Weight loss</i>		
Yes	170	68.0
No	80	32.0
<i>Stillbirth</i>		
Yes	94	37.6
No	156	62.4
<i>Abdominal pain</i>		
Yes	205	82.0
No	45	18.0

Table 3 was used to present that all the 250 respondents that is 100.0% know about condoms, 52.0% knows and use pills and 40.8% said they do engage in withdrawal method. Figure 2 was further used to display the types of contraceptives that have been used by the respondents where the most commonly used is condom and the least used are Intrauterine devices and Lactation amenorrhea. Table 4 was used to present that all the 250 respondents agreed that unprotected sex can lead to STDs, 64.8 accepted that the side effect of STDs can be rash, 58.0% agreed that it can cause painful intercourse, 93.2% agreed that discharge from private part can be the side effect and 86.0% agreed with that STDs can cause painful urination.

**Table 5.** Respondent’s Opinion of Contraceptives

Variables	Frequency (n=250)	Percentage (%)
<i>Do you think that undergraduate students should be encouraged to use contraceptives.</i>		
Agree	91	36.4
Strongly agree	124	49.6
Disagree	120	48.0
<i>Contraceptive discussion should be added to the school curricula</i>		
Agree	67	26.8
Strongly agree	154	61.6
Disagree	114	45.6
<i>The use of contraceptives can reduce the transmission of infectious disease</i>		
Agree	70	28.0
Strongly agree	165	66.0
Disagree	100	40
<i>I will encourage others in the use of contraceptives</i>		
Agree	192	76.8
Strongly agree	43	17.2
Disagree	100	40.0
<i>The government should strongly be involved in the promotion of the use of contraceptives</i>		
Agree	59	23.6
Strongly agree	156	62.4
Disagree	120	48.0

**Table 6.** Relationship between the Socio-Demographics of Respondents and the Knowledge of Respondents about Contraceptives

Variables	Yes (%)	No (%)	Total	X <sup>2</sup>	p-value
<i>Age distribution</i>					
≤19	7(77.8%)	2(22.2%)	9(100.0%)	0.853	0.653
20 – 22	158(75.2%)	52(24.8%)	210(100%)		
≥24	21(67.7%)	10(32.3%)	31(100%)		
<i>Sex of respondents</i>					
Male	63(74.1%)	22(25.9%)	85(100%)	0.005	0.941
Female	123(74.5%)	45(25.5%)	165(100%)		

Variables	Yes (%)	No (%)	Total	X <sup>2</sup>	p-value
(Faculty) Science	63(79.7%)	16(20.3%)	79(100.0%)	5.690	0.058
Administration	70(66.7%)	35(33.3%)	105(100.0%)		
Social Science	53(80.3%)	13(19.7%)	66(100.0%)		
<i>Class of respondents</i>				0.819	0.366
100 Level	34(57.6%)	25(42.4%)	59(100.0%)		
200 Level	43(59.7%)	29(40.3%)	72(100.0%)		
300Level	40(58.9%)	33(41.1%)	73(100.0%)		
400Level	28(56.9%)	20(43.1%)	48(100.0%)		
<i>Place of permanent residence of respondents</i>				26.607	0.000*
Urban	162(66.9%)	80(33.1%)	242(100.0%)		
Rural	32(35.6%)	58(64.4%)	90(100.0%)		
<i>Place of residence in the University</i>				0.025	0.874
In university hostel	85(61.2%)	54(38.8%)	139(100%)		
Off-campus	60(54.1%)	51(45.9%)	111(100.0%)		
<i>Current relationship status of respondents</i>				0.026	0.873
Single, no romantic and/or intimate relationship	120(74.1%)	42(25.9%)	162(100%)		
Single in a steady romantic and/or intimate relations	66(75.0%)	22(25.0%)	88(100%)		

Table 6 was used to present the Chi-square test result on the relationship between the socio-demographics of respondents and the knowledge of respondents about contraceptives. The findings demonstrated a strong correlation between the respondents' permanent residence and the knowledge of respondents about contraceptives at  $p < 0.05$ . Therefore, undergraduate students who live in urban centres will have more knowledge about contraceptives due to the level of enlightenment and social media factors. Table 7

was used to display the Chi-square test result carried out on the relationship between the socio-demographics of respondents and the usage of contraceptives. The outcomes showed a substantial correlation between the respondents' permanent residency, sex of respondents, age group less than 19 and faculty of respondents with contraceptive usage. These results implied that respondents who live in urban centres, young undergraduates, students in faculty with large students and female respondents do use contraceptives the more.

**Table 7.** Relationship between Socio-Demographic Characteristics of Respondents and Usage of Contraceptives

Variables	Yes (%)	No (%)	Total	X <sup>2</sup>	p-value
<i>Age distribution</i>				22.484	0.001*
≤19	7(77.8%)	2(22.2%)	9(100.0%)		
20 - 22	132(62.9%)	78(37.1%)	210(100%)		
≥24	6(19.4%)	25(80.6%)	31(100%)		
<i>Sex of respondents</i>				6.885	0.009*
Male	59(69.4%)	26(30.6%)	85(100%)		
Female	86(52.1%)	79(47.9%)	165(100%)		
<i>Faculty</i>				90.561	0.000*
Science	43(65.2%)	23(34.8%)	66(100.0%)		
Administration	75(94.9%)	4(5.1%)	79(100.0%)		
Social Science	27(25.7%)	78(74.3%)	105(100.0%)		
<i>Class of respondents</i>				0.099	0.753
100 Level	34(57.6%)	25(42.4%)	59(100.0%)		
200 Level	43(59.7%)	29(40.3%)	72(100.0%)		
300Level	40(58.9%)	33(41.1%)	73(100.0%)		
400Level	28(56.9%)	20(43.1%)	48(100.0%)		
<i>Place of permanent residence of respondents</i>				26.607	0.000*
Urban	162(66.9%)	80(33.1%)	242(100.0%)		
Rural	32(35.6%)	58(64.4%)	90(100.0%)		
<i>Place of residence in the University</i>				0.025	0.874
In university hostel	85(61.2%)	54(38.8%)	139(100%)		
Off-campus	60(54.1%)	51(45.9%)	111(100.0%)		
<i>Religion of respondents</i>				1.913	0.167
Christianity	94(61.4%)	56(38.6%)	153(100.0%)		
Islam	51(52.6%)	46(47.4%)	97(100.0%)		
Indigenou	9(52.9%)	8(47.1%)	17(100.0%)		
<i>Current relationship status of respondents</i>					

Variables	Yes (%)	No (%)	Total	X <sup>2</sup>	p-value
Single, no romantic and/or intimate relationship	97(59.9%)	65(40.1%)	162(100%)	0.665	0.145
Single in a steady romantic and/or intimate relations	48(54.5%)	40(45.5%)	88(100%)		

Table 8 was used to display the result of the binary logistic regression on the relationship between knowledge and the associated risk of non-utilisation of contraceptives. The findings signified a significant linear correlation between non-utilisation of contraceptive risk and stillbirth with a binary logistic regression coefficient

(3.069) with p-value = 0.001. This implied that the risk of non-utilisation of contraceptives can make undergraduate students to contact with STDs from their partners during sexual intercourse and this can result in stillbirth in females and critical health issues in male respondents if the STDs are not properly treated.

**Table 8.** Relationship between Knowledge and Associated risk of Non-Utilisation of Contraceptives

Variables	Good knowledge (%)	Poor knowledge (%)	Total	Coefficient/ CI at 95%.	p-value
<i>Rash</i>					
Yes	172(74.8%)	58(25.2%)	230(100.0%)	1.271(3.460-.467)	0.638
No	14(70.0%)	6(30.0%)	20(100.0%)		
<i>Discharge</i>					
Yes	167(75.9%)	53(24.1%)	220(100.0%)	1.824(4.077-.816)	0.139
No	19(63.3%)	11(36.7%)	30(100.0%)		
<i>Ulcer</i>					
Yes	163(74.8%)	55(25.2%)	218(100.0%)	1.160(2.657-.506)	0.726
No	23(71.9%)	9(28.1%)	32(100.0%)		
<i>Painful intercourse</i>					
Yes	180(74.4%)	62(25.6%)	242(100.0%)	.968(4.920-.190)	0.968
No	6(75.0%)	2(25.0%)	8(100.0%)		
<i>Infertility</i>					
Yes	138(72.3%)	53(27.7%)	191(100.0%)	.597(1.235-.288)	0.161
No	48(81.4%)	11(18.6%)	59(100.0%)		
<i>Painful urination</i>					
Yes	96(76.2%)	30(23.8%)	126(100.0%)	1.209(2.135-.684)	0.513
No	90(72.6%)	34(27.4%)	124(100.0%)		
<i>Weight loss</i>					
Yes	104(74.3%)	36(25.7%)	140(100.0%)	.986(1.749-.557)	0.963
No	82(74.5%)	28(25.5%)	110(100.0%)		
<i>Stillbirth</i>					
Yes	126(82.9%)	26(17.1%)	152(100.0%)	3.069(5.515-1.708)	0.001*
No	60(61.2%)	38(38.8%)	98(100.0%)		
<i>Abdominal pain</i>					
Yes	166(75.1%)	55(24.9%)	221(100.0%)	1.358(3.158-.584)	0.476
No	20(69.0%)	9(24.9%)	29(100.0%)		

## Conclusion

This study was used to discuss and analyse the level of knowledge, awareness, and usage of contraceptives as a way of protection against unwanted pregnancy and STDs among Olabisi Onabanjo University undergraduate students. The primary data used in the research was collected using the Questionnaire method. Three hundred (300) questionnaires were administered to respondents while two hundred and fifty (250) were completed and returned. The respondent mean age  $\pm$  SD was  $21.25 \pm 1.43$  years, 84.0% were between 20-22 years, 56.4% were in 300 level, 42.0% were from the faculty of science, 61.2% lived in the university hostel and 64.8%

were single with no romantic/ or intimate relations. The majority of the respondents have heard of and know different types of contraceptives, All the 250 respondents know condoms, 52.0% and 40.8% have used pills and withdrawal methods respectively. Several respondents agreed to have used condoms, pills, periodic abstinence, withdrawal method and diaphragm before. All the 250 respondents agreed that unprotected sex can cause STDs and can lead to several side effects. The 250 respondents were aware Gonorrhoea, Syphilis, chancroid/ulcer and Tubai sickness are STDs. The opinion of respondents on contraceptives strongly agreed that undergraduate students should be encouraged to use contraceptives, the teaching of

contraceptive usage, reduces the transmission of infectious diseases, encourages others to use and the Government should strongly be involved in the promotion of the use of contraceptives.

The Chi-square test result signified the existence of a significant correlation between permanent residence of respondents and the knowledge of respondents about contraceptives at  $p < 0.05$ . Therefore, undergraduate students who live in urban centres will have more knowledge about contraceptives due to the level of enlightenment and social media factors. The chi-square test result showed a significant relation between permanent residence of respondents, sex of respondents, age group less than 19 and faculty of respondents with contraceptive usage at  $p < 0.05$ . These results implied that respondents who live in urban centres, young undergraduates, students in faculty with large students and female respondents do use contraceptives the more. The binary logistic regression outcomes signified a significant linear relationship between non-utilisation of contraceptive risk and stillbirth with a binary logistic regression coefficient (3.069) with  $p$ -value = 0.001. This implied that the risk of non-utilisation of contraceptives during intercourse can make undergraduate students contact with STDs from their partners and this can result in stillbirth in females in the future and critical health issues in male respondents if the STDs are not properly treated. Conclusively, there is reasonable knowledge, awareness and usage of contraceptives among Olabisi Onabanjo University undergraduate students. However, more awareness needs to be created about the utilisation of contraceptives during sexual intercourse for unmarried student partners to prevent unwanted pregnancy and put a stop to the spread of STDs.

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#### Author Contributions

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#### Conflicts of Interest

The authors declare no conflict of interest.

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