


Original article

DOI: 10.32415/jscientia_2024_10_1_31-42
EDN: CQRGZC**THE BURDEN AND PREDICTORS OF EARLY SEXUAL INITIATION AMONG SCHOOL-GOING ADOLESCENTS IN RURAL SETTLEMENTS IN RIVERS STATE, NIGERIA****I. Harold** ¹, **K. Okpara** ², **A. I. Harold** ³¹ Department of Public Health Sciences, Rivers State University, Port Harcourt, Nigeria² Institute of Geoscience and Environmental Management, Rivers State University, Port Harcourt, Nigeria³ Hensek Integrated Services Ltd., Uyo, Akwa Ibom State, Nigeria Harold Isaac — isaac.harold88@gmail.com

INTRODUCTION. Early sexual initiation is the art of initiating sexual activity before age 15. This study aimed to identify the burden and predictors of early sexual initiation among school-going adolescents in rural settlements in Rivers State, Nigeria.

MATERIALS AND METHODS. A cross-sectional study was conducted among 420 school-going senior secondary school adolescents of coeducational schools aged 15–19 from May 2023 to September 2023. A multi-stage sampling procedure was used to select respondents from four senior secondary coeducational schools. Data were collected using a semi-structured interviewer-assisted questionnaire. Frequency tables were generated and Logistic regression analysis was used to determine predictors of early sexual initiation at a 5% level of significance.

RESULTS. The mean age of respondents was 15.7 ± 0.8 years. The mean age at early sexual initiation was 12.2 ± 1.2 years. The burden of early sexual initiation and ever-had sex among the respondents was 46% and 54.8% respectively with poor academic performance, school dropout, STI infection, pregnancy, and HIV infection experienced as outcomes of first sexual initiation among the respondents. The statistically significant predictors of early sexual initiation were adolescents having worked for pay, currently working for pay, and adolescents' age at first sexual partner (OR = 4.6; 95% CI = 1.6–12.7; P = 0.004, OR = 6.6; 95% CI = 1.9–23.7; P = 0.003 and OR = 3.1; 95% CI = 1.3–7.2; P = 0.009).

CONCLUSION. Sexuality education and programmes aimed at encouraging school-going adolescents to delay first-sex initiation should be encouraged.


KEYWORDS: Early sexual initiation, predictors, coeducational secondary school, school-going adolescents.

FOR CITATION: Harold I, Okpara K, Harold AI. The Burden and Predictors of Early Sexual Initiation among School-Going Adolescents in Rural Settlements in Rivers State, Nigeria. *Juvenis scientia*. 2024;10(1):31-42. DOI: 10.32415/jscientia_2024_10_1_31-42.

Оригинальное исследование

DOI: 10.32415/jscientia_2024_10_1_31-42
EDN: CQRGZC

БРЕМЯ И ПРЕДИКТОРЫ РАННЕГО НАЧАЛА ПОЛОВОЙ ЖИЗНИ ШКОЛЬНИКАМИ В СЕЛЬСКОЙ МЕСТНОСТИ ШТАТА РИВЕРС, НИГЕРИЯ

А. Харольд ¹, К. Окпара ², А. А. Харольд ³¹ Факультет общественного здравоохранения, Университет штата Риверс, Порт-Харкорт, Нигерия² Институт геолого-геофизических исследований и управления окружающей средой, Университет штата Риверс, Порт-Харкорт, Нигерия³ Hensek Integrated Services Ltd., Уйо, штат Аква Ибом, Нигерия Харольд Айзек — isaac.harold88@gmail.com

ВВЕДЕНИЕ. Ранним началом половой жизни считается вступление в неё до достижения 15-летнего возраста. Целью данного исследования была оценка бремени и предикторов раннего начала половой жизни среди школьников-подростков в населённых пунктах сельской местности штата Риверс, Нигерия.

МАТЕРИАЛЫ И МЕТОДЫ. В период с мая 2023 г. по сентябрь 2023 г. проведено поперечное исследование с участием 420 школьников старших классов школ в возрасте 15–19 лет. Для участия в исследовании были отобраны респонденты из четырёх общеобразовательных школ совместного обучения. Данные были собраны с использованием полуструктурированного опросника с помощью интервьюера. Были составлены таблицы частот и использован логистический регрессионный анализ для определения предикторов раннего начала половой жизни на уровне значимости 0,05.

РЕЗУЛЬТАТЫ. Средний возраст респондентов составил $15,7 \pm 0,8$ года. Средний возраст раннего начала половой жизни составил $12,2 \pm 1,2$ года. Показатели распространённости раннего начала половой жизни и наличия сексуального опыта респондентов составили 46% и 54,8%, соответственно. При этом результатами вступления в половую жизнь среди респондентов являлись плохая успеваемость, отчисление из школы, беременность, заражение ВИЧ-инфекцией и другими инфекциями, передаваемыми половым путём. Статистически значимыми предикторами раннего начала половой жизни были работа по найму в прошлом, работа по найму в настоящее время, а также возраст первого вступления в половую связь (ОШ = 4,6; 95% ДИ = 1,6–12,7; P = 0,004, ОШ = 6,6; 95% ДИ = 1,9–23,7; P = 0,003; ОШ = 3,1; 95% ДИ = 1,3–7,2; P = 0,009).

ЗАКЛЮЧЕНИЕ. Следует поощрять половое воспитание и соответствующие образовательные программы с целью профилактики раннего начала половой жизни подростками.

КЛЮЧЕВЫЕ СЛОВА: раннее начало половой жизни, предикторы, средняя школа совместного обучения, подростки, посещающие школу.

ДЛЯ ЦИТИРОВАНИЯ: Харольд А., Окпара К., Харольд А.А. Бремя и предикторы раннего начала половой жизни школьниками в сельской местности штата Риверс, Нигерия // Juvenis scientia. 2024. Том 10. № 1. С. 31-42. DOI: 10.32415/jscientia_2024_10_1_31-42. EDN: CQRGZC.



INTRODUCTION

Early sexual initiation among school-going adolescents has been a public health burden globally. Early sexual initiation is defined as having one's first sexual experience before the age of fifteen [1, 2, 3]. Adolescent sexual initiation is a significant factor in adolescent sexual and reproductive health, especially because it can have detrimental effects on teenage and adult physical and mental health [3, 4, 5]. But under other conditions, it may turn into a dangerous behavior. Given its link to several risk-taking behaviours during adolescence, early sexual initiation is viewed as risky behaviour [6]. For adolescents, school is a place of learning [7]. In addition to being crucial for education, it provides a setting for the promotion of sexual and reproductive health [7]. Young ones undergo significant changes in their biological, psychological, and social development during adolescence [6, 8]. Adolescents make up a sizable section of the Niger Delta region of Nigeria's population [9]. According to the World Health Organization [10], this class of young people is between 10 to 19 years old [10]. Due to developmental changes, the adolescent stage is a delicate one that brings concerns, particularly about sexual and reproductive health [9]. Adolescents begin to go through the initial experiences of becoming adults throughout this stage of life [6]. During this time, adolescents could feel pressured to defy social expectations and engage in risky behaviours [6]. Nowadays, the majority of adolescents have their first sexual experience at a younger age [7].

Early sexual initiation is linked globally to HIV/AIDS, other sexually transmitted diseases (STDs), irregular contraceptive usage, sexual assault, unintended births, and unsafe abortion practices [3, 11]. Adolescents living in rural areas face additional structural disadvantages, such as inadequate access to health-care services and education, which negatively affect their health outcomes and encourage them to adopt health-protective behaviour [12].

According to reports, the percentage of teenagers who had sex before turning 15 varied from 5% to 27% [3]. Sexually transmitted infections (STIs) pose a disproportionately significant danger to adolescents [13]. Early sexual initiation can also lead to mental health issues, and subpar academic results, and serve

as a springboard for risky nonsexual activities like alcohol and illegal drug use [3]. Adolescents in some regions of the world still have poor sexual and reproductive health outcomes, despite advancements [14]. In the United States in 2018, occurrences of sexually transmitted illnesses and their prevalence were over 50% higher in young people (15–24 years old) than in any other age group [13]. 58.1% of gonococcal infections and 75.8% of chlamydial infections were among girls aged 15 to 24 [13]. Adolescent risk behaviour study has focused on parents' knowledge of adolescents' activities, peers, and whereabouts rather than the processes by which parents acquire that knowledge [14]. Research indicates that the change from middle to high school is important for the onset of sexual engagement; 30% of ninth-grade students said they had started sex [14]. Many adolescents can develop behaviours and experiences that increase their risk of becoming pregnant unintentionally and contracting STDs, including HIV [6, 8, 13]. Research indicates that adolescents in sub-Saharan Africa are not well-informed about sexual health issues because their social networks and schoolmates serve as their primary information sources [15].

The Niger Delta Region's adolescent population engages in unhealthy sexual behaviour that is defined by multiple sexual partners, risky sexual behaviour, and early sexual initiation [16]. Adolescents who live in low-income areas face additional pressures that can have detrimental effects on their sexual health [16]. The prevalence of early sexual initiation is high worldwide, with rates as high as 9.8% in Malaysia, 18.1% in China, and 58.6% in the Caribbean [17]. Furthermore, early sexual initiation is common in African countries; percentages vary from 26.8% in Nigeria to 55% in Ghana [17]. Nigeria is wasting its most valuable resources by not implementing enough laws to deal with avoidable health issues [18]. To attain universal health coverage and improved health for everyone, the Lancet Nigeria Commission seeks to reframe future health policy in Nigeria [18]. Investing in the health system and socioeconomic determinants of health can help Nigeria achieve greater prosperity [18]. Young people should have access to opportunities to explore their own identities and values as well as the knowledge, abilities, attitudes, and val-

ues necessary to prevent negative health outcomes. They should also have the chance to practice the communication, negotiation, and decision-making skills necessary to form healthy relationships throughout their lives [19]. Age, gender, residence, religion, not attending religious programmes, self-education and parental education, socioeconomic status, employment status, wealth index, sex of household head, substance use, chewing khat, watching pornographic materials at a young age, attending daytime or nighttime parties, peer pressure, poor parent-child connectedness, parental monitoring, and bonding, positive attitudes regarding condom efficacy, having been in a physical altercation in the previous year, sedentary behavior, poor knowledge of sexually transmitted diseases, schooling status, academic achievement, an unfavorable opinion on premarital sexual abstinence, aggression, conduct disorders, and media exposure are just a few of the many variables that may affect the burden of early sexual initiation among school-going adolescents [17]. Thus, this study aimed to determine the burden and predictors of early sexual initiation among school-going adolescents in rural settlements in Rivers State, Nigeria.

MATERIALS AND METHODS

River State was created and constituted one of the earliest states in the Niger Delta region of Nigeria among other states; Cross River, Edo, Delta, Abia, Imo, Bayelsa, Akwa-Ibom, and Ondo. The state was formed with the split of the Eastern Region of Nigeria. The State has about 243 secondary schools with a population of 5,198,716 as of the 2006 census and is the 7th most populous state in Nigeria.

The study was conducted among senior secondary school students (1–3) of public and private schools in rural settlements in Rivers State, Nigeria.

A cross-sectional design was used for this study and a multi-stage sampling procedure was used to select the study sample. The 23 Local Government Areas (LGA) of Rivers State were identified and stratified into rural and urban with 22 rural and 1 urban Local Government Area. Among the 22 rural Local Government Areas, one was randomly selected using a simple random sampling method. All the senior secondary schools were identified and stratified into

public and private coeducational schools in the selected rural LGA. The list of these schools was obtained from the Rivers State Ministry of Education. A simple random sampling method was used to select two schools from each stratum. The total number of students (SS 1–3) in the four selected schools was 3560. In each selected school, respondents were selected from SS 1, 2, and 3 using the class register of the different arms (A, B, and C). A simple random sampling method was used to select the first student. Thereafter, every 6th student was recruited using systematic sampling. A sample size of 420 was used.

Data were collected using a semi-structured interviewer-assisted questionnaire. The questionnaire was in five sections with 50 questions which included socio-demographic characteristics, knowledge and perception about early sexual initiation, and sexual initiation. The questionnaires were completed by the respondents with interviewer assistance in the selected classrooms.

The dependent variable was early sexual initiation, while independent variables were sociodemographic data and other factors that may be associated with early sexual initiation such as peer influence, belief, respondents' level of knowledge about early sexual initiation, age respondents had first sexual experience, and respondents having a sexual partner.

Questionnaires were checked for errors and cleaned at the end of each day. Data were entered into the computer and analyzed using SPSS version 26. Errors were checked for and corrected. Frequencies, proportions, percentages, and means of variables were generated. Logistic regression analysis was used to determine factors associated with and predictors of early sexual initiation at a 5% level of significance.

RESULTS

The response rate for this study was 100%, with a total of 420 participants, collected from two public and two private coeducational senior secondary schools in a remote area of Rivers State.

Table 1 shows the sociodemographic characteristics of respondents. The age of the respondents ranged from 15 to 19 years with a mean age of 15.7 ± 0.8 years. More than half of the respondents (51.9%) were 15 years of age and 52.9% of them

Table 1
Distribution of sociodemographic characteristics of respondents (N=420)

Variable	Frequency	Percentage
Age		
15	218	51.9
≥16	202	48.1
Mean (± SD)	15.7 (± 0.8)	
Sex		
Male	222	52.9
Female	198	47.1
Class		
SS 1	134	32.2
SS 2	153	36.4
SS 3	133	31.4
Ethnicity		
Ijaw	377	89.8
Others	43	10.2
Religion		
Christianity	412	98.1
Others	8	1.9
Ever worked for pay		
Yes	132	31.4
No	288	68.6
Currently work for pay		
Yes	98	23.3
No	322	76.7

were males. The majority of the respondents were Ijaws (89.8%), 98.1% were Christians, 31.4% had ever worked for pay, and 23.3% of the respondents currently work for pay.

Figure 1 shows respondents' awareness of early sexual initiation. Participants' answers to three questions were used to conduct the assessment. Results revealed that 19.5% of respondents had heard the term "early sexual initiation", 11.0% were familiar with its meaning, and 47.4% gave the age of 14 or younger as the definition of the term. 79.9% of respondents had a good awareness of early sexual initiation.

Figure 2 shows respondents' perceptions of early sexual initiation. The assessment was based on par-

Table 2
Distribution of respondents' sexual initiation (N = 420)

Variable	Frequency	Percentage
Ever had a sexual partner		
Yes	207	49.3
No	213	50.7
Age when had a first sexual partner (years)		
10–12	107	25.4
≥13	100	23.9
Mean (± SD)	11.9 (±1.6)	
Reason for a first sexual partner		
Peer influence	110	26.2
Ignorance	53	12.6
Initiate first sex	21	5.0
Others	23	5.5
Ever had sex		
Yes	230	54.8
No	190	45.2
Age had first sexual initiation (years)		
Early (≤14)	193	46.0
Mean (± SD)	12.2 (±1.2)	
Late (>14)	37	8.8
Mean (± SD)	13.3 (±1.4)	
Reason for first sexual initiation		
Home videos	58	13.8
Pornographic videos	20	4.8
Social media	20	4.8
Coercion into intimacy	11	2.6
Urge to give it a try	63	15.0
Love	58	13.8

ticipants' responses to nine questions. 100% of the respondents would not encourage early sexual initiation in school and the majority of the respondents (94.5%) reported that it is bad to initiate sex early in life. 82.6%, 88.8%, and 77.9% reported that early sexual initiation has no health benefit, socioeconomic benefit, or physical benefit, respectively, and 75.7% of them would encourage delaying early sex initiation in life and have a positive perception of early sexual initiation.

Table 2 shows respondents' sexual initiation. Less than half of the respondents (46.0%) had their first

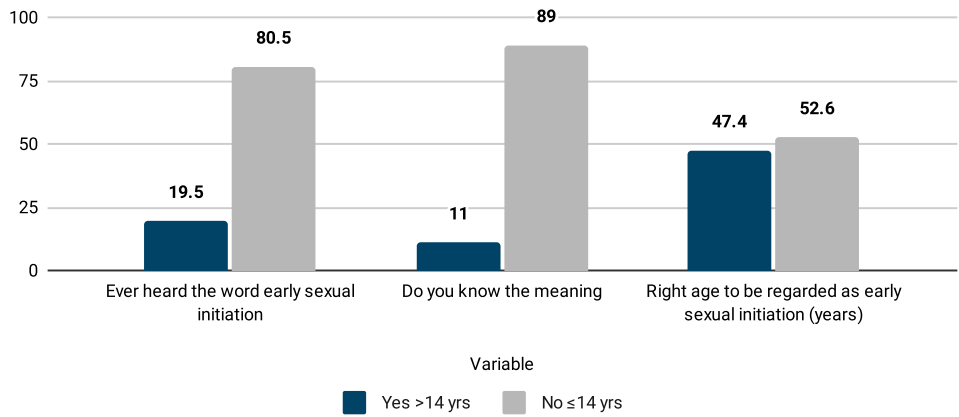


Figure 1. Respondents' knowledge on early sexual initiation (N = 420)

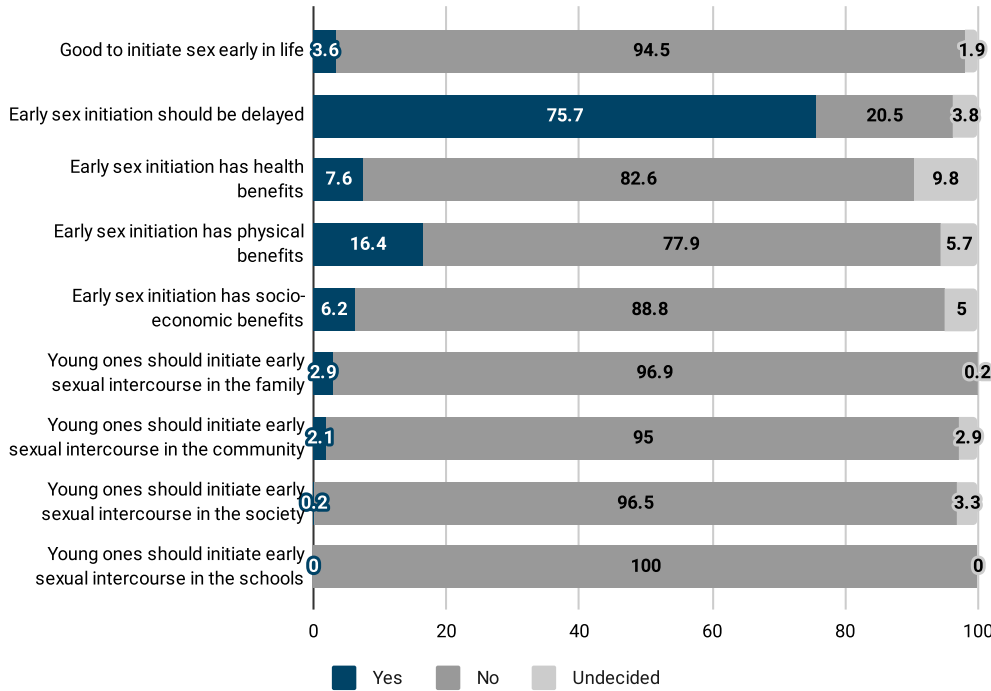


Figure 2. Respondents' perception on early sexual initiation (N = 420)

sexual initiation early at age ≤ 14 years. The mean age at early sexual initiation and late sexual initiation were 12.2 ± 1.2 years and 13.3 ± 1.4 years respectively. About 18.6% of the respondents had their first sexual partner at the age of 10 years with a mean age of 11.9 ± 1.6 years, while 26.2% reported pressure

from friends as the reason for first sexual partner and 15.0% reported the feeling of giving a try as the reason for first sexual experience.

Figure 3 shows the outcome of respondents' early sexual initiation. About 13.0% of the male respondents had STI after their first sexual intercourse, 4.1%

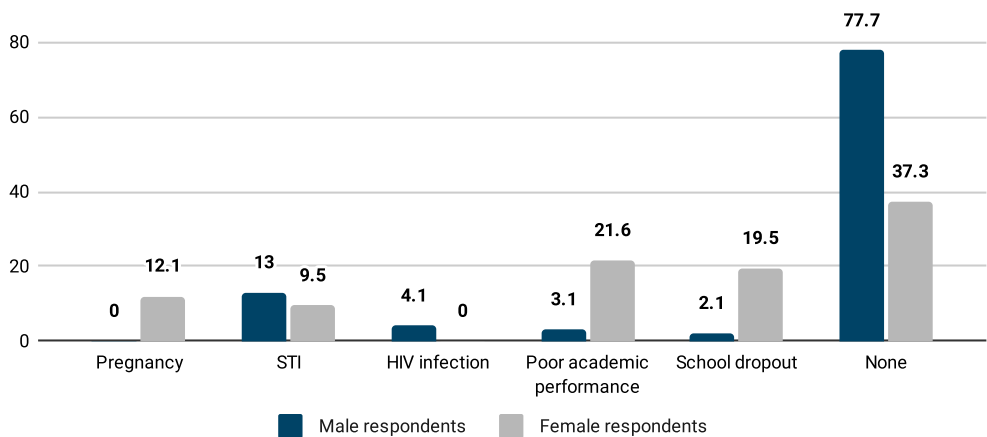


Figure 3. Respondents' early sexual initiation outcome (N = 193)

of them tested HIV-positive, 3.1% had their education affected with poor academic performance, and 2.1% dropped out of their first school after their first sexual experience. About 12.1% of the female respondents were pregnant after their first sexual experience, 9.5% had STIs, 21.6% had their education affected by poor academic performance and 19.5% dropped out of their first school.

Table 3 shows the logistic regression analysis of predictors of early sexual initiation among the respondents who had initiated early sex. The predictors of early sexual initiation among them were the age respondents had their first sexual partner, respondents ever worked for pay, and currently working for pay. Those who had their first sexual partner at the age <14 years, ever worked for pay, and currently working for pay were more likely to have experienced early sexual initiation (OR = 3.1; 95% CI = 1.3–7.2; P = 0.009; OR = 4.6; 95% CI = 1.6–12.7; P = 0.004 and OR = 6.6; 95% CI = 1.9–23.7; P = 0.003).

DISCUSSION

The study was conducted to determine the burden and predictors of early sexual initiation among school-going adolescents in rural settlements in Rivers State, Nigeria. The respondents' ages ranged from 15 to ≥16 years of age. The mean age of the respondents was 15.7 years. A majority (89.9%) of the respondents were Ijaws by ethnicity. This could be explained by the fact that the study was carried out in rural set-

Table 3
Predictors of early sexual initiation among respondents (n = 193)

Variable	OR	95% CI	P-Value
Sex			
Male	0.5	0.7–4.9	0.220
Female	1		
Parents educational level			
Primary	1		
Secondary	0.9	0.2–4.7	0.908
Tertiary	1.3	0.2–7.1	0.746
Age had a first sexual partner			
14	1		
< 14	3.1	1.3–7.2	0.009*
Ever worked for pay			
Yes	4.6	1.6–12.7	0.004*
No	1		
Currently working for pay			
Yes	6.6	1.9–23.7	0.003*
No	1		

*Significant variable at 5% level of significance

tlements in Rivers State, with other rural settlements dominated by the Ijaws.

Early sexual initiation among school-going adolescents in rural settlements is a public health burden in Nigeria. The result from this study showed that of those who had ever had sex, 46.0% had

their first sexual initiation at an age ≤ 14 . This was lower than what was reported in a previous study in South East Nigeria where the prevalence of early sexual initiation was reported as 95% [20]. This agreed with a previous study by Muhammad et al. who reported that both adolescent boys (9.8%) and girls (4.4%) who lived in rural areas had a significantly higher prevalence of early sexual initiation than those who lived in urban areas in India [21]. This was higher than what was reported in a previous study in Ethiopia where 38.4% of adolescents experienced early sexual initiation before the age of 15 [22], 22.0% in Bangladesh [17], 14.2% in a systematic review of 50 countries by Kushal et al., [3], 13.3% in Brazil [23], 21.14% in East Africa [24], and 26.7% in Ghana [25]. This was also higher than what was reported in a study in South Africa where 8.9% of adolescents experienced early sexual initiation before the age of 15 [1, 2], and 14% in California, U.S.A. [26]. This difference may be a result of the strength of education and advocacy against early sexual initiation among school-going adolescents in these countries compared to Nigeria which is still underdeveloped.

The reasons for early sexual initiation in this study were: watching pornographic videos, exposure to social media, rape, urge to give sexual initiation a try, and falling in love. This was similar to what was reported by Augustine et al. in Nigeria where reasons for early sexual initiation were parents exposed young female adolescents to street trading, pervasive viewing of locally produced movies, peer pressure, and rape [20, 27]. This was contrary to a systematic review of 50 countries by Kushal et al. who reported anxiety, loneliness, suicidal ideation, being bullied, truancy, and physical fighting as reasons for early sexual initiation among adolescents [3]. This difference could be a result of poor regulation and monitoring of adolescents' use of phones, the internet, and social media and its information in Nigeria compared to other countries. The results from this study show that 79.9% of the respondents had good knowledge of early sexual initiation. This agreed with the results of a previous study conducted in Bangladesh that highlighted that adolescents with higher levels of knowledge on early sexual initiation are more

conscious of the potential risks of sexual activities and are therefore less likely to participate in early sexual initiation [17]. Similar findings have been reported in many other countries, including Indonesia [28], Ethiopia [29, 30], Ghana [25, 32] and Nigeria [33, 20]. This could be a result of the present level of awareness campaigns on the dangers of early sexual initiation across the globe.

The perception of early sexual initiation was 75.7%. This was slightly lower than the results of a previous study that reported a 78% positive perception of early sexual initiation among adolescents in the U.S. [34]. This slight difference could be due to the level of the pursuit of Western civilization in Nigeria with the help of the different community health programmes provided by most Western companies and industries present in Rivers State and its rural settlements.

The result of this study showed that early sexual initiation was more of a burden among school-going adolescents. Poor academic performance, school dropout, STIs, pregnancy, and HIV infection were experienced as outcomes of their first sexual initiation. This agreed with the results of a previous study conducted in Kenya that highlighted low academic performance as an outcome of early sexual initiation among adolescents [35], and STIs and teenage pregnancy in Nepal [36]. This similarity could be a result of the level of poor knowledge about the dangers of early sexual initiation among school-going adolescents and the less or no clue of the possible outcomes due to the prevailing development index of these countries which may have not encouraged adequate and effective awareness campaigns, and sexual education in the schools.

The predictors of early sexual initiation in this study were: age at first sexual partner (OR = 3.1; 95% CI = 1.3–7.2; $P = 0.009$), ever worked for pay (OR = 4.6; 95% CI = 1.6–12.7; $P = 0.004$), and currently working for pay (OR = 6.6; 95% CI = 1.9–22.7; $P = 0.003$). This was contrary to what was reported by Lorraine et al. in Ireland who reported sociodemographic factors, family support, number of friends, and lifestyle factors as predictors of age of sexual initiation among adolescents [37], frequent media exposure (OR = 2.70; 95% CI = 1.36–5.32; $P = 0.001$), exposure to pornography (OR = 1.87; 95% CI = 1.12–3.12; $P = 0.001$), and the

odds of early sexual initiation were higher among adolescent boys (OR = 1.89; 95% CI = 1.19–3.01; $P = 0.001$) and girls (OR = 1.77; 95% CI = 1.30–2.41; $P = 0.001$) who had moderately-severe or severe depressive symptoms compared to their counterparts in India [21], income, prior experience of discussing reproductive health topics, and having a boyfriend or girlfriend in Ethiopia [38], polygamous family settings (OR = 2.62; 95% CI = 1.70–2.79; $P = 0.002$), sex education at home (OR = 0.45; 95% CI = 0.26–0.54; $P = 0.002$), alcohol use (OR = 2.35; 95% CI = 2.12–4.65; $P = 0.04$), and poor reproductive health knowledge (OR = 0.82; 95% CI = 0.54–0.86; $P = 0.041$) in Ogbomoso, South-Western Nigeria [24].

Limitation of the study: It was challenging accessing the students to participate in the study in some schools due to their learning schedules. Therefore, their free periods and lunchtime were targeted. Also, some students were shy and did not want to participate but since the questionnaire was interviewer-administered and efforts were made to administer it privately, this gave them the confidence to respond to all the questions.

The analyses were based on cross-sectional data collected with an interviewer-assisted questionnaire and did not capture data on same-sex sexual experiences among respondents as one of the arts of early sexual initiation. The study only focuses on early sexual initiation between the opposite sex. However, this does not damage the relevance of the results in this study, since such behaviour can be considered risky sexual behaviour and problematic for current and future health, regardless of its magnitude. Thus, more research is necessary in this area that includes

same-sex sexual experiences as one art of early sexual initiation among school-going adolescents.

CONCLUSION

The impact of risky sexual practices like early sexual initiation on the general health of adolescents is enormous. This study has shown that the proportion of school-going adolescents in rural settlements engaged in early sexual initiation is still high. Most school-going adolescents in rural settlements still engage in early sexual initiation at a younger age despite having a good knowledge and positive perception of early sexual initiation. The predictors of early sexual initiation established by this study were the age at which adolescents had their first sexual partner, adolescents ever worked for pay and currently working for pay. We strongly recommend that adequate, effective, and efficient intervention programmes should be established and strengthened to properly orient and discourage school-going adolescents from engaging in early sexual initiation.

Funding: The authors declare no funding.

Conflict of interest: The authors declare no conflict of interest.

Compliance with ethical principles: All participants in the study provided informed consent for publication of their data.

Author contributions: All authors confirm the authorship according to the international criteria of *ICMJE* (all authors have made substantial contributions to the conception, design, conduct of the study, and preparation of the manuscript, have read and approved the final version for publication).

REFERENCES [ЛІТЕРАТУРА]

1. Duby Z, Jonas K, McClinton Appollis T, et al. *From Survival to Glamour: Motivations for Engaging in Transactional Sex and Relationships Among Adolescent Girls and Young Women in South Africa*. *AIDS Behav.* **2021**;25(10):3238–3254. DOI: 10.1007/s10461-021-03291-z.
2. Appollis TM, Jonas K, Beauclair R, et al. *Early Sexual Debut and the Effects on Well-Being among South African Adolescent Girls and Young Women Aged 15 to 24 Years*. *Int J Sex Health.* **2021**;34(2):242–253. DOI: 10.1080/19317611.2021.1979162.
3. Kushal SA, Amin YM, Reza S, et al. *Regional and Sex Differences in the Prevalence and Correlates of Early Sexual Initiation Among Adolescents Aged 12-15 Years in 50 Countries*. *J Adolesc Health.* **2022**;70(4):607–616. DOI: 10.1016/j.jadohealth.2021.10.027.

4. Peltzer K, Pengpid S. *Early Sexual Debut and Associated Factors among In-school Adolescents in Six Caribbean Countries*. West Indian Med J. **2015**;64(4):351-356. DOI: 10.7727/wimj.2014.025.
5. Reis LF, Surkan PJ, Valente JY, et al. *Factors associated with early sexual initiation and unsafe sex in adolescents: Substance use and parenting style*. J Adolesc. **2020**;79:128-135. DOI: 10.1016/j.adolescence.2019.12.015.
6. Ongaro F, Tocchioni V. *Adding up risks: Sexual debut and substance use among Italian university students*. Adv Life Course Res. **2022**;53:100491. DOI: 10.1016/j.alcr.2022.100491.
7. Soares Junior JM, de Oliveira HMC, Luquetti CM, et al. *Adolescents' knowledge of HPV and sexually transmitted infections at public high schools in São Paulo: A cross-sectional study*. Clinics (Sao Paulo). **2022**;77:100138. DOI: 10.1016/j.clinsp.2022.100138.
8. Harold I, Sekoni OO. *Factors Associated with Early Sexual Debut among Senior Secondary School Students in Okrika Local Government Area, Rivers State, Nigeria*. Int J Res Rep Gynaecol. **2023**;6(1):10-23.
9. Mgbere M, Kelechi AM. *Determinants of Adolescents Pregnancy and Access to Reproductive Health Services in Niger Delta, Nigeria*. Medicine, Health & Food. **2022**;100(1):204-214. DOI: 10.47119/IJRP1001001520223135.
10. World Health Organization. *Adolescent Health*. <https://www.who.int/health-topics/adolescents/coming-of-age-adolescent-health>. **2020**.
11. Jariénė K, Ulevičius J, Petrušaitė A, et al. *Sexual behavior of Lithuanian high school students*. Contraception. **2022**;109:62-67. doi:10.1016/j.contraception.2022.01.013.
12. Larsson FM, Bowers-Sword R, Narvaez G, Ugarte WJ. *Exploring sexual awareness and Decision-making among adolescent girls and boys in rural Nicaragua: A socio-ecological approach*. Sex Reprod Healthc. **2022**;31:100676. DOI: 10.1016/j.srhc.2021.100676.
13. Rasberry CN, Young E, Szucs LE, et al. *Increases in Student Knowledge and Protective Behaviors Following Enhanced Supports for Sexual Health Education in a Large, Urban School District*. J Adolesc Health. **2022**;70(4):588-597. DOI: 10.1016/j.jadohealth.2021.05.015.
14. Ethier KA, Harper CR, Hoo E, Dittus PJ. *The Longitudinal Impact of Perceptions of Parental Monitoring on Adolescent Initiation of Sexual Activity*. J Adolesc Health. **2016**;59(5):570-576. DOI: 10.1016/j.jadohealth.2016.06.011.
15. Toru T, Sahlü D, Worku Y, Beya M. *Parent-adolescent communication on sexual and reproductive health issues and associated factors among students in high school and preparatory in Arekit, Southwest, Ethiopia, 2020*. Int J Africa Nurs Sci. **2022**;17:100509.
16. Okonta PI. *Adolescent sexual and reproductive health in the Niger Delta region of Nigeria--issues and challenges*. Afr J Reprod Health. **2007**;11(1):113-124.
17. Abdulla F, Hossain MM, Rahman A. *Determinants of early sexual initiation among female adolescents in Bangladesh: evidence from a countrywide cross-sectional survey*. Public Health. **2023**;223:102-109. DOI: 10.1016/j.puhe.2023.07.019.
18. Abubakar I, Dalglis SL, Angell B, et al. *The Lancet Nigeria Commission: investing in health and the future of the nation*. Lancet. **2022**;399(10330):1155-1200. DOI: 10.1016/S0140-6736(21)02488-0.
19. Eisenberg ME, Oliphant JA, Plowman S, et al. *Increased Parent Support for Comprehensive Sexuality Education Over 15 Years*. J Adolesc Health. **2022**;71(6):744-750. DOI: 10.1016/j.jadohealth.2022.08.005.
20. Onyeonoro UU, Oshi DC, Ndimiele EC, et al. *Sources of sex information and its effects on sexual practices among in-school female adolescents in Osioma Ngwa LGA, south east Nigeria*. J Pediatr Adolesc Gynecol. **2011**;24(5):294-299. DOI: 10.1016/j.jpjg.2011.05.002.
21. Muhammad T, Srivastava S, Kumar P, Patel SK. *What predicts the early sexual debut among unmarried adolescents (10-19 years)? Evidence from UDAYA survey, 2015-16*. PLoS One. **2021**;16(6):e0252940. DOI: 10.1371/journal.pone.0252940.

22. Abate BB, Kassie AM, Kassaw MW. *Prevalence and Determinants of Early Initiation of Sexual Intercourse Among Youth Girls in Ethiopia*. J Pediatr Nurs. **2020**;55:e305-e312. DOI: 10.1016/j.pedn.2020.06.008.
23. Reis LF, Surkan PJ, Valente JY, et al. *Factors associated with early sexual initiation and unsafe sex in adolescents: Substance use and parenting style*. J Adolesc. **2020**;79:128-135. DOI: 10.1016/j.adolescence.2019.12.015.
24. Olufemi AT, Paulin OI, Akinbode OO. *Prevalence and predictors of early sexual debut among adolescents in Ogbomoso, Nigeria*. Am J Public Health. **2018**;6(3):148-154.
25. Amoako Johnson F. *Geographical hotspots and correlates of early sexual debut among women in Ghana*. Reprod Health. **2022**;19(1):118. DOI: 10.1186/s12978-022-01425-7.
26. Minnis H, Gajwani R, Ougrin D. *Editorial: Early intervention and prevention of severe mental illness: A child and adolescent psychiatry perspective*. Front Psychiatry. **2022**;13:963602. DOI: 10.3389/fpsyt.2022.963602.
27. Ankomah A, Mamman-Daura F, Omoregie G, Anyanti J. *Reasons for delaying or engaging in early sexual initiation among adolescents in Nigeria*. Adolesc Health Med Ther. **2011**;2:75-84. DOI: 10.2147/AHMT.S23649.
28. Delavera A, Eryando T. *Early sexual initiation among adolescent girls in Indonesia*. Al-Sihah Public Health Sci J. **2021**;161-175.
29. Turi E, Merga BT, Fekadu G, Abajobir AA. *Why Too Soon? Early Initiation of Sexual Intercourse Among Adolescent Females in Ethiopia: Evidence from 2016 Ethiopian Demographic and Health Survey*. Int J Womens Health. **2020**;12:269-275. DOI: 10.2147/IJWH.S244621.
30. Kefale B, Adane B, Damtie Y, et al. *Unmet need for family planning among reproductive-age women living with HIV in Ethiopia: A systematic review and meta-analysis*. PLoS One. **2021**;16(8):e0255566. DOI: 10.1371/journal.pone.0255566.
31. Udigwe IB, Adogu PO, Nwabueze AS, et al. *Factors influencing sexual behavior among female adolescents in Onitsha, Nigeria*. Open J Obstet Gynecol. **2014**;4(16):987.
32. Bingenheimer JB, Asante E, Ahiadeke C. *Peer Influences on Sexual Activity among Adolescents in Ghana*. Stud Fam Plann. **2015**;46(1):1-19. DOI: 10.1111/j.1728-4465.2015.00012.x.
33. Fatusi AO, Blum RW. *Predictors of early sexual initiation among a nationally representative sample of Nigerian adolescents*. BMC Public Health. **2008**;8:136. DOI: 10.1186/1471-2458-8-136.
34. Sing'oei V, Owuoth JK, Otieno J, et al. *Early sexual debut is associated with drug use and decreased educational attainment among males and females in Kisumu County, Kenya*. Reprod Health. **2023**;20(1):111. DOI: 10.1186/s12978-023-01639-3.
35. Shrestha R, Karki P, Copenhaver M. *Early Sexual Debut: A Risk Factor for STIs/HIV Acquisition Among a Nationally Representative Sample of Adults in Nepal*. J Community Health. **2016**;41(1):70-77. DOI: 10.1007/s10900-015-0065-6.
36. Cotton S, Fowler K, Pomiankowski A. *Do sexual ornaments demonstrate heightened condition-dependent expression as predicted by the handicap hypothesis?* Proc Biol Sci. **2004**;271(1541):771-783. DOI: 10.1098/rspb.2004.2688.
37. Burke L, Nic Gabhainn S, Kelly C. *Socio-Demographic, Health and Lifestyle Factors Influencing Age of Sexual Initiation among Adolescents*. Int J Environ Res Public Health. **2018**;15(9):1851. DOI: 10.3390/ijerph15091851.
38. Ayalew A, Abreha K, Shumey A, Berhane K. *Magnitude and predictors of early sexual debut among high and preparatory school students in northern Ethiopia: a school-based cross-sectional study*. J Health Edu Res Dev. **2015**;3(151):2.

AUTHORS [АВТОРЫ]

✉ *Harold Isaac*, Master of Public Health, Lecturer at the Department of Public Health Sciences, Rivers State University; ORCID: 0000-0002-6345-7935; email: isaac.harold88@gmail.com

Okpara Kingsley, PhD, Associate Professor at the Institute of Geoscience and Environmental Management, Rivers State University.

Harold Aniekan Isaac, M.Sc. Global Health, Secretary and Health Safety Officer at the Hensek Integrated Services Ltd., Uyo, Akwa Ibom State, Nigeria; ORCID: 0009-0004-0554-9032.

✉ *Харольд Айзек*, магистр общественного здравоохранения, преподаватель Факультета общественного здравоохранения, Университет штата Риверс; ORCID: 0000-0002-6345-7935; email: isaac.harold88@gmail.com

Окпара Кингсли, PhD, доцент Института геолого-геофизических исследований и управления окружающей средой Университета штата Риверс.

Харольд Аниекан Айзек, магистр в области глобальных проблем здравоохранения, секретарь и специалист по безопасности здоровья в Hensek Integrated Services Ltd.; ORCID: 0009-0004-0554-9032

Received: 22.11.2023

Accepted: 11.01.2024

Published: 29.02.2024