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Original Article

Sexual Behaviours among the Elderly Population in Osun State, Southwestern Nigeria

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Introduction: The population of the elderly and older persons worldwide has increased over time as demographic transition thickens. In Nigeria, whereas, most interventional efforts are geared towards prioritizing and protecting youth sexuality, very little or no attention is being given to the sexuality of the elderly. The objective of this study therefore was to determine sexual behaviors among the elderly population in Osogbo, southwestern Nigeria.

Methods: This was a community based descriptive cross-sectional study carried out in 2016 among 491 eligible elderly respondents drawn from a simple random sample of five clusters. Research instrument was interviewer administered semi-structured and pretested questionnaire. Bivariate analysis using chi-square test was used to examine association between categorical variables at 5% level of significance. Responses were analyzed using the SPSS software version 21.0.

Results: Mean age in years of respondents was 66.9 ±7.3 SD, 106 (21.6%) were males, 78 (15.9%) have had sex within the last 12 months, 25.9% had high sexual risk behavior while 45 (9.2%) described themselves as still sexually active. Major predictors of having sexual intercourse within the past 12 months and self-reported of being sexually active include; living with spouse, having low educational status, currently taking alcohol, having a regular source of income and being a male, $p < 0.05$ in each case.

Conclusion: The elderly age group is still sexually active to varying levels, thus stressing the importance of prioritizing elderly sexual health as part of a holistic and comprehensive geriatric care programmes.

Keywords: Sexual Behavior, Aged, Predictors, Nigeria

Introduction

The population of the elderly and older persons worldwide has increased over time as demographic transition thickens, thus making issues affecting this significant proportion of the human population to becoming increasingly more important. They face several medical and social problems that necessitate the attention of stakeholders in geriatric care. In a study, about 57% of above 60 years population were described as sexually active (1) in a bid to become socially relevant and maintain relationship amidst several other factors mediating social roles in their environment. Research has also suggested that many older people enjoy an active sex life contrary to some beliefs, probably exposing to common sexuality related problems (2).

Current knowledge may have suggested that sexual functioning and frequency declines with age (2, 3). As

reasons for reduced sexual interest, some of the multiple interacting etiologies include general physical health, psychological causes, and sexual dysfunction which often interact to bring about poor sexual desires; and the less importance placed on elderly sexuality compared to the younger population (4). As for the younger counterparts, high risk sexual behavior could predispose the elderly to social problems related to unstable relationships, broken homes, and sexually transmitted infections including HIV/AIDs.

While HIV-related sexual risk behaviors have been studied extensively in younger people, limited information exists about these behaviors among older population. Generally there is serious dearth of information on elderly sexuality among Africans. Since many men and women have been reported that they could remain sexually active well into later life (5-7), then the poor availability of literature on sexuality in elderly people leaves social scientists and clinicians with the impression that older adults have either dismal or non-existent sex lives. It is thus important to ascertain social factors surrounding sexual relationships among the elderly as well as their sexual risk behaviors. This study therefore determined sexual pattern and its determinants among the elderly population in Osun State, southwestern Nigeria.

Methods

Study Area/Location

The study was carried out in Osun State. The state is located in the south-western Nigeria and share boundaries with Kwara State in the North, in the east partly by Ekiti State and partly by Ondo State, in the south by Ogun State and in the west by Oyo State. Osun state is situated in the tropical rain forest zone and it has a Land area of approximately 14,875 sq km. According to the 2006 National Population Commission Census (8). Osun state has a population of 3,423,535 and its capital is Osogbo. The state is made up of 30 administrative areas also known as Local Government Areas LGAs. For the purpose of this study, each LGA represents a cluster.

Study design

Community based descriptive cross sectional study.

Study population

Elderly population in Osun State who at the time of study were 60 years and above and who gave consent to participate in the study. All eligible respondents must have resided in the selected clusters (local government areas) for at least six months before the survey and should be fit on general physical examination.

Sample size

We calculated a minimum sample size of 382 at 80% power would be required to estimate sexual behaviour among the elderly at 95% confidence interval with a prevalence of 54% being the proportion of the elderly that reported one or more sexual intercourse within six months prior to the study (9). This value was increased to 491 for better representation and increased study power.

Sampling methods

Five of the thirty clusters in the state were selected by simple random sampling. In each of the selected clusters, the central primary health care facility was designated as the meeting point for the medical outreach. Adequate publicity and mobilization at grass-root level was facilitated and ensured by the Health Educators, community and religious leaders in the selected clusters prior to data collection and other field events.

Research instrument

Were essentially semi-structured interviewer-administered pretested questionnaire. This was administered alongside general physical health examination by community health physicians in the research team and should not be pale, afebrile, anicteric and no significant peripheral edema. Communications with the elderly respondents was almost entirely by the indigenous language – Yoruba. On few occasions of encountering non-indigenes, depending on the level of education, Pigeon English (some form of adulterated English language) or English language was adopted as language of communication. Overall, data collection took a period of three weeks preceded by a two day intensive training for all field workers on effective research data collection particularly from the elderly persons.

Ethical considerations

To conduct the study was obtained from the research ethics committee of LAUTECH Teaching Hospital Osogbo. Written and verbal informed consent were obtained from each of the elderly before proceeding with data collection.

Data analysis

Was essentially by inputting the data into the computer system and analyzing them using the SPSS software version 21.0 after data cleaning and checking for consistency of data entered through double entry and random checks. Frequency tables and a chart were used to present univariate data. Bivariate analysis was carried out using Chi-square test. Determination and scoring of sexual risk behavior was carried out by listing all variables that constitute high-risk sexual behavior. The 13 variables were managed by scoring 1 for a risk factor and zero when a risk factor was not applicable. Scores above the average of the total possible scores was categorized as high risk behavior while scores below the average of the total possible scores was categorized as low risk behavior. A binary logistic regression was used to identify predictors of sexual behavior of the elderly. Three outcome variables used to measure elderly sexual behavior were; having had sex within the past 12 months, still enjoys sex, and being currently sexually active. Statistical significance was reckoned at 5% level.

Results

Table 1 shows that the mean age in years of respondents was 66.9 ± 7.3 SD, with 110 (22.4%) being in the 75 to 85 years category; 106(21.6%) were males, 202(41.1%) were living with spouses, 251(51.1%) lived in rural areas,

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332(67.6%) had no formal education while 211(43.0%) claimed they have regular source of income. Table 2 shows that one hundred and fourteen (23.2%) lived in rented apartment while 315(64.2%) lived in personal apartment, 300(61.1%) lived with a person that can take care of them, 105(21.4%) have ever used alcohol drinks while 31(6.3%) were current smokers; 372(75.8%) claimed they were satisfied with their lives achievements. Table 3 shows that seventy eight (15.9%) have had sex within the last 12 months, among which 13(2.6%) had casual sex partners. Sixty-six (13.4%) described their interest in sex within the last 12 months as 'completely lost interest', 168(34.2%) said they have developed more interest. Only 11(2.2%) showed interest in having more children.

Seven (1.4%) described their sexual relationship as delightful, 31(6.3%) described it as pleasurable while 16(3.3%) described it as most satisfactory. Forty two (53.8%) of the 78 that had sex 12 months before the survey said they still enjoy sexual intercourse with opposite sex while 45(9.2%) described themselves as still sexually active. Table 3 also shows that 25.9% had high sexual risk behavior while 74.1% had low sexual risk behavior. Tables 3 and 4 shows that a statistically significant association exits between having had sexual intercourse within the last 12 months and the four variables of gender, marital status, education status and having regular income (p = 0.001). Similar statistically significant association was found for being currently sexually active and still enjoying sexual intercourse with the three variables of gender, marital status and education status (p = 0.001).

Tables 3 and 4 also shows that respondents who were old old and very old have the same odd (OR = 0.91) of having sexual intercourse as an elderly and this observation was found not to be statistically significant (OR = 0.91, 95% CI = 0.5254-1.5782, p = 0.3661). Male elderly were about nine times more likely to have had sexual intercourse as an elderly compared to female elderly and this observation was found to be statistically significant (OR = 9.91, 95% CI = 5.7147-17.1815, p = 0.001). Location, whether rural or urban is not a determinant of the odd of having sexual intercourse as an elderly and this observation was found not to be statistically significant (OR = 0.98, 95% CI = 0.5991-1.6077, p = 0.4710). In addition, men were 2.6 times more likely to be sexually active compared to women and this observation was found to be statistically significant (OR = 2.66, 95% CI = 12.0702-58.7141, p = 0.001) according to Table 3.

Respondents with no or primary level of education were less likely to have had sexual intercourse as an elderly compared to those with secondary or tertiary level education and this observation was found to be statistically significant (OR = 0.22, 95% CI = 0.1188 - 0.3961, p = 0.001). Respondents having regular source of income were twice more likely to have sexual intercourse as an elderly within the past 12 months compared to those without regular income though this observation was also found to be statistically significant (OR = 2.11, 95% CI = 1.2682-3.5189, p = 0.0019). Male were almost ten times more likely to have had sex in the past 12 months compared to females. Likewise male were about twelve times more likely to be currently sexually active compared to females. Both observations was found to be statistically significant

Thus, major socio-demographic predictors of having sexual intercourse within the past 12 months as an elderly and being sexually active include being a male, having low education status, currently taking alcohol, still enjoying sexual intercourse and having a regular source of income.

Table 1. Personal data of respondents (n = 491)

Variable		Frequency	%
Age (in years)	60-74 (young old)	369	75.2
	75-85 (old old)	110	224
	> 85 (very old)	12	24
Gender	Male	106	21.6
	Female	385	78.4
Marital status	Living with spouse	202	41.1
	Not living with spouse	289	58.9
Religion	Muslim	296	60.3
	Christians	195	39.7
Residence	Rural	251	51.1
	Urban	240	48.9
Highest education level	None (nil formal)	332	67.6
	Primary	98	20.0
	Secondary	34	6.9
	Tertiary	27	5.5
Clusters	Ede North	96	19.6
	Obokun	78	15.9
	Olorunda	85	17.3
	Orolu	90	18.3
	Ejigbo	142	28.9
Having regular source of income	Yes	211	43.0
	No	280	57.0

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Table 2. Social history of respondents (n=491)

Variable (Yes option only)		Frequency	%
Present residential status	Rented apartment	114	23.2
	Personal apartment	315	64.2
	Resident with child/relatives etc	59	12.0
	Others	3	0.6
Living with a person that takes care of him		300	61.1
Satisfied with present residential arrangement		292	59.5
Considers self to be lonely		63	12.8
Ever used alcohol drinks		105	21.4
Currently taking alcohol		31	6.3
Ever smoked		92	18.7
Current smoking		4	0.8
Takes kolanut		165	33.6
Have any source of worry		196	39.9
Satisfied with one's life		372	75.8

Table 3. Sexual history of respondents (n = 491)

Variables		Frequency	%
Had sex within the last 12 months (n = 491)	Yes	78	15.9
	No/no response	413	84.1
If yes, have had casual sex partners (n = 78)		13	2.6
Interest in sex within last 12 months (n = 243)	Less interest/		
	Completely lost interest	66	13.4
	More interested	168	34.2
	Others	12	4.9
No of biological children (n = 374)	1-4	115	23.4
	5	259	52.7
Any concern about menopause or andropause (n = 491)	Not concerned at all	145	29.5
	Sometimes concerned	346	70.5
Still desire to have more children (n = 491)	Ye	11	2.2
	No	346	70.5
	No response/not sure	134	27.3
Sexual relationships with (n = 76)	Female	59	77.6
	Male	17	22.4
Have casual sexual partner (n = 491)	Yes	13	2.6
	No	478	97.4
Still enjoying sexual intercourse with opposite sex	Yes	42	53.8
	No	36	46.2
Physical pleasurability of relationship (n = 64)	Delightful	7	1.4
	Pleasurable	31	6.3
	Most satisfactory	16	3.3
	Mixed	10	2.0
Sexual risk status	High risk	364	74.1
	Low risk	127	25.9
Believes he/she is currently sexually active(n = 491)	Yes	45	9.2
	No	446	90.8

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Table 4. Association between outcomes variables and some personal data of respondents

Variables	Bivariate analysis				Binary logistic regression			
	Have had sex in the past 12 months		Statistics		OR	95% CI		p-value
	Yes	No	χ2-value	p-value		Lower	Upper	
Age								
Young old	56(18.5)	246(81.5)	2.244	0.326	0.91	0.5254	1.5782	0.366
Old old/Very old*	22(20.0)	88(80.0)						
Gender								
Male	50(49.5)	51(50.5)	81.486	0.001**	9.90	5.7147	17.1815	0.001**
Female*	28(9.0)	283(91.0)						
Marital status								
Live with spouse	52(30.4)	119(69.6)	25.091	0.001**	3.61	2.1454	6.0860	0.001**
Not with spouse*	26(10.8)	215(89.2)						
Residence								
Rural	37(18.8)	160(81.2)	0.006	0.941	0.98	0.5991	1.6077	0.470
Urban*	41(19.1)	174(80.9)						
Having regular source of income								
Yes	50(24.6)	153(75.4)	8.467	0.004**	2.11	1.2682	3.5189	0.001**
No	28(13.4)	181(86.6)						
Still enjoys sexual intercourse								
Yes	42(35.6)	76(64.4)	2.666	0.001**	3.69	2.2117	6.1884	0.001**
No	36(13.0)	241(87.0)						
Consider Self to be lonely								
Yes	8(17.0)	39(83.0)	0.126	0.722	0.86	0.3868	1.9318	0.374
No	70(19,2)	295(80.8)						

Variables	Currently sexually active		Statistics		OR	95% CI		p-value
	Yes	No	χ^2 value	p-value		Lower	Upper	
Age								
Young old	33(13.4)	213(86.6)	0.084	0.959	0.91	0.4492	1.8705	0.399
Old old/Very old*	12(14.5)	71(85.5)						
Gender								
Male	35(51.5)	33(48.5)	103.691	0.001**	26.62	12.0702	58.7141	0.001**
Female*	10(3.8)	251(96.2)						
Marital status								
Living with spouse	34(26.2)	96(73.8)	28.334	0.001**	6.05	2.9376	12.4724	0.001**
Not with spouse*	11(5.5)	188(94.5)						
Residence								
Rural	21(12.0)	154(88.0)	0.891	0.345	0.73	0.3932	1.3875	0.175
Urban*	24(15.6)	130(84.4)						

*Reference category **Statistical Significant

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Table 5. Association between sexual behaviour outcomes variables and some personal data of respondents

Variables	Bivariate analysis				Binary logistic regression			
	Have had sex in the past 12 months		Statistics		OR	95% CI		p-value
	Yes	No	χ2 value	p-value		Lower	Upper	
Education level								
None/primary	53(14.9)	303(85.1)	35.136	0.001**	0.21	0.1188	0.3961	0.001**
Secondary/tertiary*	25(44.6)	31(55.4)						
Have regular income								
Yes	50(24.6)	153(75.4)	8.467	0.004**	2.1	1.2826	3.5981	0.002**
No*	28(13.4)	181(86.6)						
Sexual risk								
High	13(17.3)	62(82.7)	3.941	0.139	0.54	0.2840	1.0338	0.028**
Low*	89(28.0)	230(72.0)						
Currently takes alcohol	15(48.4)	16(51.6)	12.702	0.001**	3.83	1.7640	8.3304	0.001**
	45(19.7)	184(80.3)						

Variables	Currently sexually active		Statistics		OR	95% CI		p-value
	Yes	No	χ^2 value	p-value		Lower	Upper	
Education level								
None/primary	32(11.3)	250(88.7)	23.478	0.001**	0.33	0.1601	0.6999	0.003**
Secondary/tertiary*	13(27.7)	34(72.3)						
Have regular income								
Yes	32(19.5)	132(80.5)	9.428	0.002**	2.85	1.4281	5.6259	0.001**
No*	13(7.9)	152(92.1)						
Consider Self to be lonely	5(17.2)	24(82.8)	0.342	0.559	1.35	0.4886	3.7532	0.275
	40(13.3)	260(86.7)						
Currently takes alcohol	10(45.5)	12(54.5)	15.863	0.001**	5.83	2.2647	15.0252	0.001**
Yes	23(12.5)	161(45.5)						
No								

*Reference category **Statistical Significant

Discussion

Quite a contrast to most reproductive health sexuality and fertility research focusing on the adolescents and young adults, this study assessed the issue of sexuality among the various categories of the elderly in order to determine their sexual pattern and behavior. Only few and far less than one fifth of our respondents have had sexual intercourse within the last 12 months with about two thirds reporting less interest in sex. This finding which could probably be due to the ageing process and reducing quantity of the testosterone hormone among the elderly that is in disagreement with another study (2) that reported a prevalence of sexual activity among three quarter of the elderly respondents studied. A higher sexual activity figure was also reported by Lindau et al. (10), but most of these studies actually included pre-elderly age group in their research respondents, and such would make the potential of their figures to be higher if truly sexual activity reduces with age. Reduced sexual attraction, cultural and societal expectations, poverty and loss of strength among other mental and physical disorders could have been responsible for reducing sexual activities among the elderly. This explanation for reduced sexual activity has been supported by another similar study (3).

In our study, about one third said they still enjoy sexual intercourse, while less than one tenth described themselves as sexually active coupled with about one third claiming they still have interest in sex. This pattern of sexual activity among the elderly is low when compared to yet another study (1) that reported about 57% being active. Though these comparative studies have used 60 years as their cut off age, this reference study reported that others had become completely abstinent at some time in their lives. Statistical analysis of this reference study also revealed significant gender, health and educational status based differences in the sample in support of our findings where gender and education status were major predictors of elderly having sexual intercourse. The female gender most especially the widowed are traditionally or culturally expected to remain single and pre-occupy themselves with the care of children and grandchildren, the same may not hold for the elderly male who probably believes that he is still socially relevant in the society, who wants care from younger women most especially those with regular income which is one of the major predictors from our study.

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In our study, some elderly described their sexual relationship as delightful, some described it as pleasurable, some as most satisfactory while about one third said they still enjoy sexual intercourse with opposite sex. This supports findings from another study (9) in which about two third indicated that sexual intercourse or activity is appropriate, a little more than half reported having sexual desire, a little less than half considered sex very important in their lives, a little more than half reported one or more instances of sexual intercourse. This shows the dire importance of sex to life most especially among the elderly men, despite the fact that menopause and andropause may have taken place or commenced as the case may be. The issue of satisfaction was also supported by another study (11).

In our study, men were 2.6 times more likely to be sexually active compared to women and this observation was found to be statistically significant. This supports another study (12), who reported that women were less likely than men to be sexually active in the previous 6 months (54.3% vs 62.0%). However the non-significant odd of being sexually active or having sexual intercourse within the past 12 months negates findings from some other studies (3, 11, 13). This may not be unconnected with the inclusion of younger age in some of these studies while trying to do age correlation, and also the time limit set for sexual activity which is just a period of the past 12 months in our study. As a matter of limitation to this study, issues of sexuality are private matter to individuals and there was a possibility of dis-inhibition to volunteering information at first. This we overcome by telling them the rationale for the study and assuring them that data collected are confidential and for research purpose only. As a consequence, the elderly age sub-groups are still sexually active to varying levels with a belief that life must continue. They could face several sexuality interest related challenges and consequences in addition to their physical health limitations. This study also showcased the need to prioritize elderly sexual health care.

Conclusion

The elderly age sub-groups are still sexually active to varying levels most especially the male and those with regular income. With a belief that life must continue in the presence or absence of a climacteric and andropause period, the elderly could face several sexuality interest related challenges and consequences in addition to their physical health limitations. Stakeholders in elderly care and reproductive health have to prioritize elderly sexual health in the same way they do for the younger generation as part of a holistic and comprehensive geriatric care for the teaming and increasing population of the elderly in Osun state and Nigeria as a country.

Study limitations

In this environment, matters relating to sexual intercourse are usually regarded as private and should not be expressly shared in public. This led to some level of dis-inhibition to volunteer sexuality information among some of our respondents. Initial counseling and assurance of confidentiality of data collected resolved this issue.

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Conflict of interest

None to declare, between authors and concerned institutions.

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Authors' contributions

BE owned the concept of this research. He worked on data collection, analysis and write up. WO worked on data management, writing and review of the manuscript.

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