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Perception of the General Population About Sexual Activities in Later Life: A Cross-Cultural Perspective

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ABSTRACT

Background: Cultural and societal norms could influence older age sexuality as societal sexual attitudes are shown to set the stage for how one adjusts to biological changes. Therefore, understanding cultural diversity and its association with public perception of sexuality in later life is warranted. **Objectives:** To explore the public's perception of sexual activities in later life through a cross-cultural perspective to comparatively identify the elements of the people's culture that are most associated with how the public views sex in later life. **Materials and Methods:** This was comparative research utilizing a cross-sectional online survey among the general population of Nigeria 79 (73.8%) and India 28 (26.1%) adults aged 18 years and above ($n = 107$; female = 54.2%). Data for the study were collected using an adapted questionnaire to elicit responses on the sociodemography of respondents and their perception of appropriateness, emotions, reactions, and thoughts about sexual activities among older people. **Results:** The findings consistently showed that what attitudes and perceptions the public/individuals have is a function of their prevailing culture as their ethnicity, nationality, and religious status mostly showed statistically significant relationships with their attitudes and perceptions ($P < 0.05$) showing the cultural sensitivity of human sexuality especially for older persons that are unmarried, widowed, and divorced. **Conclusion:** This study aligns with recent literature on the beneficial role of later-life sexuality and hereby creates awareness of the positive aspects of sexuality in later life and calls for social and medical support for the aged to access and receive sexual relations all through their later life.

KEYWORDS: Couples' sexuality, India, Nigeria, nonmarital sexuality, older people, perceptions, sexuality

INTRODUCTION

The older age is often mistaken to be an asexual phase of human life, especially in conservative societies^[1,2] in sub-Saharan Africa. Such social constructions and norms about sex in later life have been shown to influence older peoples' perceptions and attitudes toward their sexual behavior.^[3-5] It also causes denial of older people's right to access support for their sexual needs.^[6] Most times, societal norms

are manifested in the form of misconceptions, myths, cohort effects, ageism, and sexism. For instance, ageism in most cultures manifests where old age is portrayed negatively as asexual, undesirable, or sexually impotent.^[7] Older peoples' behavior becomes influenced when they internalize such ageist beliefs manifesting around them in a process of stereotype

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embodiment.^[1] In the research by Træen *et al.*,^[8] how society imposes what sexual behavior an older person can express was described using the social script theory proposed by Gagnon and Simon.^[9] This theory posits that society dictates what sexual actions are legitimate. For instance, there is a wider acceptance of procreation as a reason for sex and sex among married partners.^[10,11]

Cultural and societal norms, therefore, appear to influence older age sexuality as sexual attitudes set the stage for how one adjusts to biological changes and other situations that challenge sexual well-being later in life.^[12] It presents differently as mediated by sociocultural values. Therefore, understanding cultural diversity and its association with public perception of sexuality in later life is warranted. A few studies have explored the perception of the general population^[1,13] and older people care agencies^[14,15] regarding later-life sexuality but none have examined the cultural influence in their responses in-depth. Especially as several changes have taken place in the present society that deeply affect attitudes towards human sexuality including a longer time between puberty and marriage,^[16] the availability of contraceptives, which affords safe attitudes toward engaging in sex, with an almost casual attitude toward contraceptive that allows many people to be exposed to nonmarital sex.^[17,18] In addition, rise in the social behavior of self-determination and anonymous social culture of “my life is none of anyone’s business” kind of attitude.^[19] There is also the influence of women’s emancipation in a growing sense and acceptance of equality of the sexes toward maintenance or loss of virginity.^[20]

Meanwhile, literature on sexuality in later life and interviews eliciting the opinion of older people have expressed that age-related changes do not always lead to a decrease in sexual activities: men and women have been found to have sexual urges and remain able to have sex well into their 70s and 80s.^[21-24] Instead, causes of falls in sexual activities in later life are linked to relationship status, which is a stronger predictor of sexual satisfaction than age itself.^[8] As well as being a female due to the likelihood of older women not having a partner,^[25] ill health, and psychosocial factors. Meanwhile, sustained sexual relationships in older age are positively linked with improved quality of life in the form of better relationship quality, better health, and higher self-esteem in older age,^[24,26] and affect their successful aging.^[27-29] In addition, a large body of evidence in the literature has shown that regular sex is of health benefit, especially in older adults where risks of prostate cancer and other reproductive diseases are high.^[30,31]

Conversely, drops in sexual satisfaction remain one of the most unmet needs of older people, especially

in sub-Saharan Africa.^[21,23,27] This is mostly because research and interventions on sexual behavior among older people often face ethical and methodological challenges owing mainly to the vulnerability of African sociocultural and religious values, as well as the societal stigmas associated with the discourse on sexual health among older people.^[6,32] Promoting sexual activities among older people by outlining and reducing the debilitating factors from social norms will contribute to healthy aging.^[33] To achieve this, recent works on later-life sexuality have recommended that efforts to instill more liberating views about the diversity of sexual expressions in later life through an informed campaign to improve public knowledge and awareness of older age sexuality should be encouraged.^[1] Villar *et al.*^[15] have described staff and residents’ reactions toward male–female sexual intercourse in residential aged care facilities in Spain, where it was mostly perceived negatively. However, they did not examine the separate opinions of their respondent regarding sex among couples compared with other categories of later-life relationship status, and they studied sex in an institutionalized aging home.

Even more, given that the recent centuries have witnessed many social changes ushering in new human needs, desires, and realities, which confront every religion and culture in a community of moral discourse, it becomes much warranted that such culturally sensitive topics as later-life sexuality across different relationship status be dissected through critical research approach. Thus, this study aims to explore the public’s perception of sexual activities in later life through a cross-cultural perspective to comparatively identify the elements of the people’s culture that are most associated with how the public views sex in later life. In addition, to understand the current norms prevailing in society and guide in drawing out appropriate campaigns to instill the correct knowledge and attitudes that are appropriate support for later-life sexuality.

MATERIALS AND METHODS

Study design and participants

This was comparative research utilizing a cross-sectional online survey among the general population of Nigeria 79 (73.8%) and India 28 (26.1%) adults aged 18 years and above ($n = 107$; female = 54.2%). The participants were conveniently recruited on social media platforms based on willingness to complete the questionnaire and adults living in any of the two countries 3 years before the data collection (July 2021) and identifying with one of the ethnic groups of either of the countries. As well, the snowballing technique was used to encourage

participants to distribute the survey to their contacts and social media platforms. Participants gave their verbal and written informed consent before enrollment. The study was approved by the Health Research and Ethics Committee of the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu State (ethical approval no: NHREC/05/01/2008B-FWA00002458-1RB00002323) and it was conducted according to the recommendations in the Declaration of Helsinki.

Study setting

This study was conducted in Nigeria and India. These countries were chosen because of their multi-cultural heritage that is, spread across the different regions, and their different religious practices. In addition, they have been previously shown to be among key culturally conservative nations.^[34,35]

Study instrument

Data for this study were collected using a six-section questionnaire to elicit responses on the sociodemography of respondents and their perception of appropriateness, emotions, reactions, and thoughts about sexual activities among older people. Each of sections 2–6 of the instrument describes a hypothetical vignette where the respondents were asked to reflect upon what they would think and do if they entered the bedroom of an older friend (aged 60–100 years) and found him or her having sex. This hypothetical scenario was repeated for older people who are husband and wife who have been in long-term cohabiting and marriage relationships, who is (are) widows/widowers, unmarried, divorced, within sections 2–6, respectively. These sections were followed with closed-ended answers about respondents' perception of appropriateness, their emotions, and reactions concerning the hypothetical scenario for each of the older person categories (husband and wife, widow/widower, unmarried, and divorced).

Two geriatricians and two gerontologists examined the content validity of the questionnaire, and their recommendations were implemented. The questionnaire was also pilot-tested on 10 people who were chosen through a face-to-face purposive sampling procedure. The reliability was confirmed using Cronbach's alpha, and the result was 0.85, indicating that it was reliable.

Data analysis

The data was analyzed using descriptive statistical methods (frequency, percentage) in tables for responses on sociodemographics and closed-ended questions. The inferential statistics of the Pearson Chi-square test were used to verify the relationships between the sociodemography of the participants and their perception of sexual activities in later life. The

Statistical Package for Social Sciences (IBM Corp., Chicago, IL, USA) version 25 was used to conduct these analyses.

RESULT

Characteristics of the participants

In Table 1, the majority of the participants (43.0%) were within the 26–35 years age range, more than half (54.2%) were female, and the majority (64.5%) reported being single at the time of the data collection. Approximately 70.1% had a Diploma/BSc level of education. About two-thirds of the respondents (73.8) were from Nigeria with the majority (46.7%) from the Igbo ethnic group. About two-thirds (75.7%) lived in the urban area, the majority of their religious practice (80.4%) were Christian, followed by 13.1% who were Hindus.

Perception of the public regarding sex between older husband and wife

In Table 2, the majority (88.8%) of the general population perceived the appropriateness of older

Table 1: Characteristics of the participants (*n* = 107)

Variable	Responses	Frequency	Percentage
Age group (years)	18–25	30	28.0
	26–35	46	43.0
	36–45	8	7.5
	46–55	18	16.8
	56–65	5	4.7
Gender	Male	49	45.8
	Female	58	54.2
Marital status	Single	69	64.5
	Married	37	34.6
	Divorced	1	.9
Level of education	Secondary	5	4.7
	Diploma/B. Sc.	75	70.1
	M.Sc./Ph.D.	27	25.2
Ethnicity	Igbo	50	46.7
	Yoruba	17	15.9
	Hindi	7	6.5
	Other	12	11.2
	Nigerian tribe		
Nationality	Other Indian tribe	21	19.6
	Nigeria	79	73.8
	India	28	26.1
Residential location	Rural	2	1.9
	Semi-urban	24	22.4
	Urban	81	75.7
Religious status	Christianity	86	80.4
	Hindus	14	13.1
	Prefer not to say	7	6.5

Table 2: Perception of the general population about sexual activities in later life ($n = 107$)

Variable	Responses	Frequency	Percentage
Appropriateness of older husband and wife having sex	Something normal	95	88.8
	Inappropriate	12	11.2
	Your emotions about older husband and wife having sex	10	9.3
Your reactions about older husband and wife having sex	Negative emotions	61	57.0
	Neutral emotions	36	33.6
	Positive emotions	92	86.0
Your reactions about older husband and wife having sex	Respectful behaviors	4	3.7
	Restrictive behaviors	11	10.3
	Supportive behaviors	49	45.8
Appropriateness of an elderly widow/widower having sex	Something normal	58	54.2
	Inappropriate	51	47.7
	Your emotions about an elderly widow/widower having sex	45	42.1
Your reactions about an elderly widow/widower having sex	Negative emotions	11	10.3
	Neutral emotions	71	66.4
	Positive emotions	27	25.2
Appropriateness of an unmarried elderly having sex	Something normal	9	8.4
	Inappropriate	50	46.7
	Your emotions about an unmarried elderly having sex	57	53.3
Your reactions about an unmarried elderly having sex	Negative emotions	46	43.0
	Neutral emotions	51	47.7
	Positive emotions	10	9.3
Appropriateness of a divorced elderly having sex	Respectful behaviors	66	61.7
	Restrictive behaviors	31	29.0
	Supportive behaviors	10	9.3
Your reactions about a divorced elderly having sex	Something normal	54	50.5
	Inappropriate	53	49.5
	Your emotions about a divorced elderly having sex	44	41.1
Your reactions about a divorced elderly having sex	Negative emotions	53	49.5
	Neutral emotions	10	9.3
	Positive emotions	70	65.4
Your reactions about a divorced elderly having sex	Respectful behaviors	29	27.1
	Restrictive behaviors	8	7.5
	Supportive behaviors		

husband and wife having sex as something normal, and the majority (57.0%) had neutral emotions about older husband and wife, having sex. In addition, the majority (86.0%) of the respondents reported they would show respectful behaviors about older husbands and wives having sex.

Table 3 shows that only the respondents' ethnicity and religious status had a statistically significant association ($P = 0.042$ and 0.023) with the participant's perception of emotional reactions and appropriateness of older husbands and wives having sex, respectively, with most of the (29.0%) Igbo ethnic groups showing more emotions that are neutral and the majority (72.9%) of the Christian religious adherent reporting it is something normal on the appropriateness of older husband and wife having sex.

Perception of the public regarding sex among older widows/widowers

In Table 2, more than half (54.2%) perceived the appropriateness of an elderly widow/widower having sex as inappropriate, and most (47.7%) had negative emotions about an elderly widow/widower having sex. Notwithstanding, most (66.4%) of the respondents reported they would show respectful behaviors about elderly widows/widowers having sex.

In Table 4, there was a statistically significant relationship between the way the different age groups responded about the appropriateness ($P = 0.001$), emotions ($P = 0.003$), and reactions ($P = 0.030$) to an elderly widow/widower having sex with most (27.1%), (27.1%), and (23.4%) of the respondent in the age range of 26–35 years perceiving it inappropriate, expressing negative emotions, and reporting they would show respectful behaviors, respectively. Second, marital status showed a statistically significant relationship with their responses about the appropriateness of an elderly widow/widower having sex ($P = 0.002$) with most (43.0%) of those single perceiving it as inappropriate.

There was also a statistically significant relationship between the way the different ethnic groups responded about the appropriateness ($P = 0.032$), emotions ($P = 0.021$), and reactions ($P = 0.024$) to an elderly widow/widower having sex, with the majority (30.8%), (27.1%), and (23.4%) of the Igbo ethnic group perceiving it inappropriate, expressing negative emotions, and reporting they would show respectful behaviors, respectively. Most of the Indian tribes perceived it as appropriate (15.0%), expressing neutral emotions (15.0%), and would show respectful behaviors (18.3%). Similarly, there was a statistically significant

Table 3: Association of the participants' sociodemography and perception about older husband and wife having sex

Variables <i>n</i> (%)		Appropriateness of older husband and wife having sex		Your emotions about older husband and wife having sex			Your reactions about older husband and wife having sex		
		Something normal	Inappropriate	Negative emotions	Neutral emotions	Positive emotions	Respectful behaviors	Restrictive behaviors	Supportive behaviors
Age group (years)	18–25	25 (23.4)	5 (4.7)	5 (4.7)	20 (18.7)	5 (4.7)	27 (25.2)	2 (1.9)	1 (0.9)
	26–35	41 (38.3)	5 (4.7)	4 (3.7)	25 (23.4)	17 (15.9)	39 (36.4)	1 (0.9)	6 (5.6)
	36–45	8 (7.5)	0 (0.0)	0 (0.0)	5 (4.7)	3 (2.8)	5 (4.7)	0 (0.0)	3 (2.8)
	46–55	17 (15.9)	1 (0.9)	1 (0.9)	9 (8.4)	8 (7.5)	17 (15.9)	1 (0.9)	0 (0.0)
	56–65	4 (3.7)	1 (0.9)	0 (0.0)	2 (1.9)	3 (2.8)	4 (3.7)	0 (0.0)	1 (0.9)
	<i>R</i> (<i>P</i> value)	2.878 (0.578)		8.644 (0.373)			12.208 (0.142)		
Gender	Female	43 (40.2)	6 (5.6)	4 (3.7)	22 (20.6)	23 (21.5)	41 (38.3)	1 (0.9)	7 (6.5)
	Male	52 (48.6)	6 (5.6)	6 (5.6)	39 (36.4)	13 (12.1)	51 (47.7)	3 (2.8)	4 (3.4)
	<i>R</i> (<i>P</i> value)	0.096 (0.756)		7.209 (0.027)			2.163 (0.339)		
Marital status	Single	60 (56.1)	9 (8.4)	8 (7.5)	42 (39.3)	19 (17.8)	60 (56.1)	3 (2.8)	6 (5.6)
	Married	34 (31.8)	3 (2.8)	2 (1.9)	19 (17.8)	16 (15.0)	31 (29.0)	1 (0.9)	5 (4.7)
	Divorced	1 (0.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.9)	1 (0.9)	0 (0.0)	0 (0.0)
	<i>R</i> (<i>P</i> value)	0.717 (0.699)		5.127 (0.275)			0.911 (0.923)		
Education	Secondary	5 (4.7)	0 (0.0)	0 (0.0)	4 (3.7)	1 (0.9)	5 (4.7)	0 (0.0)	0 (0.0)
	Diploma/B. Sc.	67 (62.6)	8 (7.5)	5 (4.7)	45 (42.1)	25 (23.4)	67 (62.6)	2 (1.9)	6 (5.6)
	M.Sc./Ph.D.	23 (21.5)	4 (3.7)	5 (4.7)	12 (11.2)	10 (9.3)	20 (18.7)	2 (2.7)	5 (5.6)
	<i>R</i> (<i>P</i> value)	1.006 (0.605)		5.174 (0.270)			4.723 (0.317)		
	Ethnicity	45 (42.1)	5 (4.7)	4 (3.7)	31 (29.0)	15 (14.1)	42 (39.3)	2 (1.9)	6 (5.6)
Ethnicity	Yoruba	15 (14.1)	1 (0.9)	1 (0.9)	9 (7.4)	6 (5.6)	13 (12.1)	1 (0.9)	2 (1.9)
	Hindi	5 (4.7)	2 (1.9)	3 (2.8)	2 (1.9)	2 (1.9)	5 (4.7)	1 (0.9)	1 (0.9)
	Other	10 (9.3)	2 (1.9)	2 (1.9)	3 (2.8)	7 (6.5)	12 (11.2)	0 (0.0)	0 (0.0)
	Nigerian tribe	19 (17.8)	3 (2.8)	0 (0.0)	15 (14.1)	7 (6.5)	20 (18.7)	0 (0.0)	2 (1.9)
	<i>R</i> (<i>P</i> value)	3.133 (0.680)		18.869 (0.042)*			5.895 (0.824)		
Nationality	Nigeria	71 (66.4)	8 (7.5)	7 (6.5)	43 (40.2)	29 (27.1)	68 (63.6)	3 (2.8)	8 (7.5)
	India	23 (21.5)	5 (4.7)	3 (2.8)	18 (16.9)	7 (6.5)	23 (21.5)	2 (1.9)	3 (2.8)
	<i>R</i> (<i>P</i> value)	1.823 (0.768)		1.823 (0.768)			0.186 (0.996)		
Religious status	Christianity	78 (72.9)	8 (7.5)	7 (6.5)	50 (46.7)	29 (27.1)	74 (69.2)	3 (2.8)	9 (8.4)
	Hindus	13 (12.1)	1 (0.9)	2 (1.9)	6 (5.6)	6 (5.6)	12 (11.2)	1 (0.9)	1 (0.9)
	Prefer not to say	4 (3.7)	3 (2.8)	1 (0.9)	5 (4.7)	1 (0.9)	6 (5.6)	0 (0.0)	1 (0.9)
	<i>R</i> (<i>P</i> value)	7.588 (0.023)*		2.582 (0.630)			0.956 (0.916)		

*significance at *P* value of 0.05

relationship in the way the different religious groups responded about the appropriateness ($P = 0.007$), and emotions ($P = 0.006$) to an elderly widow/widower having sex, with the majority (49.5%) of the Christians perceiving it inappropriate, whereas most of the (10.3%) Hindus indicated it is appropriate.

Again, there were statistically significant relationships in the way the two countries responded about their attitude and perception of the appropriateness ($P = 0.006$), emotions ($P = 0.006$), and reactions ($P = 0.011$) to an elderly widow/widower having sex, with the Nigerian population showing more (43.0%) negative emotions, whereas the Indian population showed more (16.8%) neutral emotions.

Perception of the public regarding sex among unmarried older person

In Table 2, more than half (53.3%) perceived the appropriateness of an elderly unmarried having sex as inappropriate and the majority (47.7%) had neutral emotions about unmarried elderly having sex. As well, the majority (61.7%) of the respondents reported they would show respectful behaviors about unmarried elderly having sex.

In Table 5, there was a statistically significant relationship in the way the different ethnic groups responded about the appropriateness ($P = 0.003$), emotions ($P = 0.001$), and their reactions ($P = 0.019$) to an unmarried elderly having sex, with the majority (31.8%) of the Igbo ethnic

Table 4: Association of the participants' sociodemography and perception about an elderly widow/widower having sex

Variables <i>n</i> (%)		Appropriateness of an elderly widow/widower having sex		Your emotions about an elderly widow/widower having sex			Your reactions about an elderly widow/widower having sex		
		Something normal	Inappropriate	Negative emotions	Neutral emotions	Positive emotions	Respectful behaviors	Restrictive behaviors	Supportive behaviors
Age group (years)	18–25	11 (10.3)	15 (14.0)	15 (14.0)	14 (13.1)	1 (0.9)	22 (20.6)	5 (4.7)	3 (2.8)
	26–35	15 (14.0)	29 (27.1)	29 (27.1)	15 (14.0)	2 (1.9)	25 (23.4)	19 (17.8)	2 (1.9)
	36–45	4 (3.7)	4 (3.7)	4 (3.7)	2 (1.9)	2 (1.9)	4 (3.7)	2 (1.9)	2 (1.9)
	46–55	14 (13.1)	3 (2.8)	3 (2.8)	11 (10.3)	4 (3.7)	15 (14.0)	1 (0.9)	2 (1.9)
	56–65	5 (4.7)	0 (0.0)	0 (0.0)	3 (2.8)	2 (1.9)	5 (4.9)	0 (0.0)	0 (0.0)
<i>R</i> (<i>P</i> value)		17.622 (0.001)*		23.418 (0.003)*			16.969 (0.030)*		
Gender	Female	23 (21.5)	26 (24.3)	24 (22.4)	19 (17.8)	6 (5.6)	30 (28.0)	14 (13.1)	5 (4.7)
	Male	26 (24.3)	32 (29.9)	27 (25.2)	26 (24.3)	5 (4.7)	41 (38.3)	13 (12.1)	4 (3.7)
	<i>R</i> (<i>P</i> value)	0.048 (0.827)		0.604 (0.740)			1.103 (0.576)		
Marital status	Single	23 (21.5)	46 (43.0)	39 (36.4)	26 (24.3)	4 (3.7)	46 (43.0)	20 (18.7)	3 (2.8)
	Married	25 (23.4)	12 (11.2)	12 (11.2)	18 (16.8)	7 (6.5)	24 (22.4)	7 (6.5)	6 (5.6)
	Divorced	1 (0.9)	0 (0.00)	0 (0.00)	1 (0.9)	0 (0.00)	1 (0.9)	0 (0.00)	0 (0.00)
<i>R</i> (<i>P</i> value)		12.566 (0.002)*		9.046 (0.060)			5.524 (0.238)		
Education	Secondary	3 (2.8)	2 (1.9)	2 (1.9)	2 (1.9)	1 (0.9)	5 (4.7)	0 (0.00)	0 (0.00)
	Diploma/B. Sc.	30 (28.0)	45 (42.1)	39 (36.4)	31 (29.0)	5 (4.7)	48 (45.3)	23 (21.5)	4 (3.7)
	M.Sc./Ph.D.	16 (15.0)	11 (10.3)	10 (9.3)	12 (11.2)	5 (4.7)	18 (16.9)	4 (3.7)	5 (4.7)
<i>R</i> (<i>P</i> value)		3.393 (0.183)		4.243 (0.374)			8.761 (0.067)		
Ethnicity	Igbo	17 (15.9)	33 (30.8)	29 (27.1)	17 (15.9)	4 (3.7)	25 (23.4)	21 (19.6)	4 (3.7)
	Yoruba	7 (6.5)	9 (8.4)	9 (8.4)	7 (6.5)	0 (0.0)	12 (11.2)	4 (3.7)	0 (0.0)
	Hindi	5 (4.7)	2 (1.9)	3 (2.8)	3 (2.8)	1 (0.9)	6 (5.6)	0 (0.0)	1 (0.9)
	Other	4 (3.7)	8 (7.5)	8 (7.5)	2 (1.9)	2 (1.9)	8 (7.5)	2 (1.9)	2 (1.9)
	Nigerian tribe								
Nationality	Other Indian tribe	16 (15.0)	6 (5.6)	2 (1.9)	16 (15.0)	4 (3.7)	20 (18.3)	0 (0.0)	2 (1.9)
	<i>R</i> (<i>P</i> value)	12.175 (0.032)*		21.082 (0.021)*			20.571 (0.024)*		
	Nigeria	29 (27.1)	50 (46.7)	46 (43.0)	27 (25.2)	6 (5.6)	46 (43.0)	27 (25.2)	6 (5.6)
Religious status	India	20 (18.3)	8 (7.5)	5 (4.7)	18 (16.8)	5 (4.7)	25 (23.4)	0 (0.0)	3 (2.8)
	<i>R</i> (<i>P</i> value)	10.380 (0.006)*		14.348 (0.006)*			12.973 (0.011)*		
	Christianity	33 (30.8)	53 (49.5)	48 (44.9)	32 (29.9)	6 (5.6)	53 (49.5)	27 (25.2)	6 (5.6)
Religious status	Hindus	11 (10.3)	3 (2.8)	2 (1.9)	8 (7.5)	4 (3.7)	12 (11.2)	0 (0.0)	2 (1.9)
	Prefer not to say	5 (4.7)	2 (1.9)	1 (0.9)	5 (4.7)	1 (0.9)	6 (5.6)	0 (0.0)	1 (0.9)
<i>R</i> (<i>P</i> value)		9.821 (0.007)*		14.360 (0.006)*			9.141 (0.058)		

*significance at *P* value of 0.05

group perceiving it inappropriate, whereas most (17.8%) of the other Indian tribes reported they would show neutral emotions. Similarly, there was a statistically significant relationship in the way the different religious groups responded about the appropriateness ($P = 0.001$), emotions ($P = 0.006$), and their reactions (0.041) to an unmarried elderly having sex, with the majority (49.5%) of the Christians perceiving it inappropriate, whereas most of the (12.1%) Hindus indicated it is appropriate.

In addition, there were statistically significant relationships in the way the two countries responded about their attitude and perception of

the appropriateness ($P < 0.001$), and emotions ($P = 0.010$), to an unmarried elderly having sex, with the Nigerian population indicating more (47.7%) that it is inappropriate, whereas the Indian population indicating more (20.6%) that it is appropriate.

Perception of the public regarding sex among divorced older person

In Table 2, more than half (50.5%) perceived the appropriateness of a divorced elderly having sex as appropriate and the majority (49.5%) divorced elderly having sex. In addition, the majority (65.4%) of the respondents reported they would show respectful behaviors about divorced elderly having sex.

Table 5: Association of the participants' sociodemography and perception about an unmarried elderly having sex

Variables <i>n</i> (%)		Appropriateness of an unmarried elderly having sex		Your emotions about an unmarried elderly having sex			Your reactions about an unmarried elderly having sex		
		Something normal	Inappropriate	Negative emotions	Neutral emotions	Positive emotions	Respectful behaviors	Restrictive behaviors	Supportive behaviors
Age group (years)	18–25	13 (12.1)	17 (15.9)	13 (12.1)	16 (15.0)	1 (0.9)	19 (17.8)	7 (6.5)	4 (3.7)
	26–35	16 (15.0)	30 (28.0)	24 (22.4)	18 (16.8)	4 (3.7)	25 (23.4)	19 (17.8)	2 (1.9)
	36–45	4 (3.7)	4 (3.7)	5 (4.7)	2 (1.9)	1 (0.9)	5 (4.7)	2 (1.9)	1 (0.9)
	46–55	13 (12.1)	5 (4.7)	4 (3.7)	12 (11.2)	2 (1.9)	12 (11.2)	3 (2.8)	3 (2.8)
	56–65	4 (3.7)	1 (0.9)	0 (0.0)	3 (2.8)	2 (1.9)	5 (4.7)	0 (0.0)	0 (0.0)
	<i>R</i> (<i>P</i> value)	9.733 (0.045)		15.211 (0.055)			10.179 (0.253)		
Gender	Female	22 (20.6)	27 (25.2)	24 (22.4)	19 (17.8)	6 (5.6)	27 (25.2)	17 (15.9)	5 (4.7)
	Male	28 (26.2)	30 (28.0)	22 (20.6)	32 (29.9)	4 (3.7)	39 (36.4)	14 (13.1)	5 (4.7)
	<i>R</i> (<i>P</i> value)	0.122 (0.727)		3.065 (0.216)			1.727 (0.422)		
Marital status	Single	27 (25.2)	42 (39.3)	32 (29.9)	33 (30.8)	4 (3.7)	43 (40.2)	22 (20.6)	4 (3.7)
	Married	22 (20.6)	15 (14.0)	14 (13.1)	17 (15.9)	6 (5.6)	22 (20.6)	9 (8.4)	6 (5.6)
	Divorced	1 (0.9)	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.9)	0 (0.0)	0 (0.0)
	<i>R</i> (<i>P</i> value)	5.149 (0.076)		4.332 (0.363)			3.932 (0.415)		
Education	Secondary	3 (2.8)	2 (1.9)	2 (1.9)	3 (2.8)	0 (0.0)	4 (3.7)	0 (0.0)	1 (0.9)
	Diploma/B.Sc.	32 (29.9)	43 (40.2)	34 (31.8)	37 (34.6)	4 (3.7)	43 (40.2)	26 (24.3)	6 (5.6)
	M.Sc./Ph.D.	15 (14.0)	12 (11.2)	10 (9.3)	11 (10.3)	6 (5.6)	19 (17.8)	5 (4.7)	3 (2.8)
	<i>R</i> (<i>P</i> value)	1.696 (0.428)		7.353 (0.118)			4.982 (0.289)		
Ethnicity	Igbo	16 (15.0)	34 (31.8)	28 (26.2)	19 (17.8)	3 (2.8)	25 (23.4)	22 (20.6)	3 (2.8)
	Yoruba	7 (6.5)	9 (8.4)	7 (6.5)	9 (8.4)	0 (0.0)	10 (9.3)	6 (5.6)	0 (0.0)
	Hindi	5 (4.7)	2 (2.9)	3 (2.8)	2 (2.9)	2 (2.9)	5 (4.7)	1 (1.0)	1 (0.9)
	Other	4 (3.7)	8 (7.5)	7 (6.5)	2 (2.9)	3 (2.8)	7 (6.5)	2 (2.9)	3 (2.8)
	Nigerian tribe								
	<i>R</i> (<i>P</i> value)	18.016 (0.003)*		29.435 (0.001)*			21.329 (0.019)*		
Nationality	Nigeria	28 (26.2)	51 (47.7)	42 (39.3)	31 (29.0)	6 (5.6)	43 (40.2)	30 (28.0)	6 (5.6)
	India	22 (20.6)	6 (5.6)	4 (3.7)	20 (18.7)	4 (3.7)	23 (21.5)	1 (0.9)	4 (3.7)
	<i>R</i> (<i>P</i> value)	15.639 (0.000)*		13.206 (0.010)*			12.294 (0.015)		
Religious status	Christianity	33 (30.8)	53 (49.5)	43 (40.2)	37 (34.6)	6 (5.6)	50 (46.7)	30 (28.0)	6 (5.6)
	Hindus	13 (12.1)	1 (0.9)	2 (1.9)	8 (7.5)	4 (3.7)	11 (10.3)	1 (0.9)	2 (1.9)
	Prefer not to say	4 (3.7)	3 (2.8)	1 (0.9)	6 (5.6)	0 (0.0)	5 (4.7)	0 (0.0)	2 (1.9)
	<i>R</i> (<i>P</i> value)	14.685 (0.001)*		14.494 (0.006)*			9.949 (0.041)*		

*significance at *P* value of 0.05

Table 6 shows there was a statistically significant relationship between the way the different age groups responded about the appropriateness ($P = 0.010$), and emotions ($P = 0.036$) regarding a divorced elderly having sex, with the majority (26.2%), and (21.5%) of the respondent in the age range of 26–35 years perceiving it inappropriate and expressing negative emotions, respectively.

Even more, there was a statistically significant relationship between the way the different ethnic groups responded about the appropriateness ($P = 0.005$), and emotions ($P = 0.009$) toward a divorced elderly having sex, with the majority (28.0%), and (24.3%) of the Igbo ethnic group perceiving it inappropriate and expressing negative emotions, respectively. Whereas, most of the

other Indian tribes perceived it as appropriate (16.8%) and expressed neutral emotions (16.8%). Similarly, there was a statistically significant relationship in the way the different religious groups responded about the appropriateness ($P = 0.001$), emotions ($P = 0.009$), and reactions (0.016) towards a divorced elderly having sex, with many (46.7%) of the Christians perceiving it inappropriate, whereas most of the (12.1%) Hindus indicated it is appropriate.

Furthermore, there were statistically significant relationships in the way the two countries responded about their attitude and perception of the appropriateness ($P < 0.001$), emotions ($P = 0.019$), and reactions ($P = 0.017$) toward a divorced elderly having sex, with the Nigerian population showing

Table 6: Association of the participants' sociodemography and perception about a divorced elderly having sex

Variables <i>n</i> (%)		Appropriateness of a divorced elderly having sex		Your emotions about a divorced elderly having sex			Your reactions about a divorced elderly having sex		
		Something normal	Inappropriate	Negative emotions	Neutral emotions	Positive emotions	Respectful behaviors	Restrictive behaviors	Supportive behaviors
Age group (years)	18–25	14 (13.1)	16 (15.0)	13 (12.1)	16 (15.0)	1 (0.9)	21 (19.6)	5 (4.7)	4 (3.7)
	26–35	18 (16.8)	28 (26.2)	23 (21.5)	19 (17.8)	4 (3.7)	27 (25.2)	18 (16.8)	1 (0.9)
	36–45	3 (2.8)	5 (4.7)	5 (4.7)	2 (1.9)	1 (0.9)	6 (5.6)	2 (1.9)	0 (0.0)
	46–55	14 (13.1)	4 (3.7)	3 (2.8)	13 (12.1)	2 (1.9)	11 (10.3)	4 (3.7)	3 (2.8)
	56–65	5 (4.7)	0 (0.0)	0 (0.0)	3 (2.8)	2 (1.9)	5 (4.7)	0 (0.0)	0 (0.0)
	<i>R</i> (<i>P</i> value)	13.355 (0.010)*		16.504 (0.036)*			12.790 (0.119)		
Gender	Female	20 (18.7)	29 (27.1)	23 (21.5)	20 (18.7)	6 (5.6)	32 (29.9)	15 (14.0)	2 (1.9)
	Male	34 (31.8)	24 (22.4)	21 (19.6)	33 (30.8)	4 (3.7)	38 (35.5)	14 (13.1)	6 (5.6)
	<i>R</i> (<i>P</i> value)	3.368 (0.066)		2.943 (0.230)			1.805 (0.406)		
Marital status	Single	30 (28.0)	39 (36.4)	32 (29.9)	33 (30.8)	4 (3.7)	47 (43.9)	18 (16.8)	4 (3.7)
	Married	23 (21.5)	14 (13.1)	12 (11.2)	19 (17.8)	6 (5.6)	22 (20.6)	11 (10.3)	4 (3.7)
	Divorced	1 (0.9)	0 (0.0)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.9)	0 (0.0)	0 (0.0)
	<i>R</i> (<i>P</i> value)	4.354 (0.113)		5.025 (0.285)			1.737 (0.784)		
Education	Secondary	3 (2.8)	2 (1.9)	2 (1.9)	2 (1.9)	1 (0.9)	5 (4.7)	0 (0.0)	0 (0.0)
	Diploma/B. Sc.	33 (30.8)	42 (39.3)	33 (30.8)	38 (35.5)	4 (3.7)	45 (42.1)	25 (23.4)	5 (4.7)
	M.Sc./Ph.D.	18 (16.8)	9 (8.4)	9 (8.4)	13 (12.1)	5 (4.7)	20 (18.7)	4 (3.7)	3 (2.8)
	<i>R</i> (<i>P</i> value)	4.271 (0.118)		5.003 (0.287)			6.410 (0.171)		
Ethnicity	Igbo	20 (18.7)	30 (28.0)	26 (24.3)	21 (19.6)	3 (2.8)	27 (25.2)	20 (18.7)	3 (2.8)
	Yoruba	6 (5.6)	10 (9.3)	7 (6.5)	9 (8.4)	0 (0.0)	11 (10.3)	5 (4.7)	0 (0.0)
	Hindi	6 (5.6)	1 (0.9)	3 (2.8)	3 (2.8)	1 (0.9)	6 (5.6)	0 (0.0)	1 (0.9)
	Other	4 (3.7)	8 (7.5)	7 (6.5)	2 (1.9)	3 (2.8)	8 (7.5)	3 (2.8)	1 (0.9)
	Nigerian tribe								
	<i>R</i> (<i>P</i> value)	16.945 (0.005)*		23.661 (0.009)*			14.815 (0.139)		
Nationality	Nigeria	31 (29.0)	48 (44.9)	40 (37.4)	33 (30.8)	6 (5.6)	47 (43.9)	28 (26.2)	4 (3.7)
	India	23 (21.5)	5 (4.7)	4 (3.7)	20 (18.7)	4 (3.7)	23 (21.5)	1 (0.9)	4 (3.7)
	<i>R</i> (<i>P</i> value)	15.354 (0.000)*		11.751 (0.019)*			12.059 (0.017)*		
Religious status	Christianity	36 (33.6)	50 (46.7)	41 (38.3)	39 (36.4)	6 (5.6)	54 (50.5)	28 (26.2)	4 (3.7)
	Hindus	13 (12.1)	1 (0.9)	2 (1.9)	8 (7.5)	4 (3.7)	12 (11.2)	0 (0.0)	2 (1.9)
	Prefer not to say	5 (4.7)	2 (1.9)	1 (0.9)	6 (5.6)	0 (0.0)	4 (3.7)	1 (0.9)	2 (1.9)
	<i>R</i> (<i>P</i> value)	13.842 (0.001)*		13.601 (0.009)*			12.161 (0.016)*		

*significance at *P* value of 0.05

more (44.9%) indicating it is inappropriate, whereas the Indian population mostly (21.5%) indicated it is appropriate.

DISCUSSION

This comparative study set out to explore the public perception of sexual activities in later life through a cross-cultural perspective to identify the elements of the people's culture that are most associated with how they view sex in later life and delineate the cultural teachings, presuppositions, and viewpoints regarding sexual activities among older people at different categories of their relationship status. The findings consistently showed that what attitudes and perceptions the public/

individuals have is a function of their prevailing culture as ethnicity, nationality, and religious status mostly showed statistically significant relationships with their attitudes and perceptions showing the cultural sensitivity of human sexuality, especially for older persons that are unmarried, widowed, and divorced. The findings are further discussed in detail for each category of later-life sexuality in the sections below.

Perception of the public regarding sex between older husband and wife

This study's findings support the popular view of sexuality in all ages as being legally approved in the context of marital relationships sanctioned and guaranteed by society. The majority of the respondents

in this study perceived the appropriateness of older husbands and wives having sex as something normal, had neutral emotions, and reported they would show respectful behaviors about older husbands and wives having sex. This finding is contrary to that reported by Villar *et al.*^[15] where staff and residents' reactions toward male-female sexual intercourse in residential aged care facilities in Spain were perceived negatively. However, they did not examine the separate opinions of their respondent regarding sex among couples and they studied sex in an institutionalized aging home.

The study findings further showed that the respondents' ethnicity and religious status had a major influence on their perceptions, emotional reactions, and thoughts about the appropriateness of older husband and wife having sex with Igbo ethnic groups and the Christian religious adherent showing more support for older husband and wife having sex. Although the Igbo ethnic group has previously been reported to be restrictive in their approach to sexuality,^[36] they traditionally uphold the moral rightness of sex that is, within the purview of socially conducted marital relationships for all ages.^[37] Similarly, Christian religious teachings uphold marriage as the reference point in evaluating all discussions on sexuality.^[38] This finding aligns with previous research that reported a wider acceptance of sexuality among married partners and procreation as a reason for sex.^[10,11] Marriage sustains the elements of decisiveness, stability, and social recognition components, which are deficient in one way or another in all nonmarital sexualities.^[38]

Perception of the public regarding nonmarital sex in later life

Nonmarital sex here refers to sex among older widows, unmarried, and divorced older persons. The result presented similar patterns for public perception about nonmarital sex, in which the majority responded they were inappropriate, and that they would show negative emotions, but would show respectful behavior. This is similar to previous arguments in literature regarding nonmarital sexuality as lacking true meaning and moral rectitude.^[38] Instead, nonmarital sexuality is linked to many relational problems characterized by real personal harm and health implications.^[38-40] Nonmarital sexuality has also been criticized for lacking sincerity and fidelity nor can they protect this relationship from wings and caprices. They argued that love must be safeguarded in the stability of marriage if sexual intercourse is truly to respond to the requirements of its finality and those of human dignity.^[38,41,42] It means that significant interaction, which is worthy of human

dignity always occurs in the contexts where effective feelings are present.^[38]

However, those who argue for nonmarital sexuality opine that abstinence is not as easy as some have advocated because there are psychological and physiological forces that vary from person to person driving toward orgasmic release.^[9,43]

Nevertheless, reducing nonmarital sexuality is not as impossible as society currently displays. Instead, these internal pressures are widely aided and abetted by social-sexual posture.^[38] The sexual occasion is not one of an instant and temporary bonding with no lasting or enduring meaning. In his human dimension, the sexual instinct is integrated with the whole personality and is a symbol of a loving commitment of exclusiveness faithfulness, and permanency. Since sex is such a fundamental human experience, it loses its vitality when it occurs in the absence of an affectionate personal interaction. To make sexual expression anything other than an act of serious personal commitment is to try trivializing it, and this is the same as trivializing ourselves.^[38,44]

Besides, some critical new realities that face society that should be rather concerned are the pervasive divorce and family instability, which so greatly harm the ability of the family to be the basic transmission belt of civilization and religion.^[31,45] It is thus necessary to identify effective ways to model human sexuality for older persons of different categories. Because as long as sexuality is dealt with denial and indulgence, suppression and stimulation, punishment and exploitation, secrecy and display, ageism, and segregation, it will be associated with a duplicity and indecency that leads neither to intellectual honesty nor human dignity. Human dignity demands that sexuality in later life be reviewed and taught in its unique and transcendental character.

Furthermore, some of the cultural factors that heavily influenced the respondents' perception of nonmarital sexuality included their ethnic groups with most of the Nigerians having more responses that is, negative, whereas most of the Indian tribes perceived it more positively. This finding agrees with previous reports on the conservative positions of these countries toward sexualities.^[34,35] However, there is a seeming contradiction of Indian attitudes toward sex that can be explained by their religiously and ethnically diverse structure and sexual freedom that was prominent among the ruling class in ancient times as a way of preserving dynastic succession.^[34]

Religious affiliation also influenced the respondents' perception of nonmarital sexuality as the Christians

had more responses that is, negative, whereas most of the Hindus perceived it more positively. This supports previous reports in the literature concerning the conservative teachings of Christianity^[38,40,41] compared with some teachings of Hinduism that sex is a liberation from suffering and a pleasure that should not be denied anyone, its support for polygamy, and pre-puberty marriage in the ancient.^[34,46]

Therefore, the influence of cultural elements in sexual discussion cannot be overemphasized and this warrants an individualized approach that considers each person's dynamic culture yet upholds the centrality of human biopsychosocial needs for sexuality.

Limitations

The sampling technique being an online survey did not show a normal distribution of the participants across the demographics considered for this comparative study. Especially not many of the respondents were from the older age range. It is possible that having more respondents from the older population will elicit more relevant data for policy decisions targeted at promoting the quality of life of older persons. In addition, this study did not differentiate between the genders of the older person. However, these findings might be used to develop culturally sensitive information. This could be a recommendation in the discussion chapter, however, my question is whether it belongs here. More study is needed through a qualitative and in-depth study that focuses only on examining the attitudes and perceptions of the older people themselves. Future studies should also consider attitudes and perceptions of older persons with infectious diseases and those living with impairment having sex in later life.

CONCLUSION

This study stands to support the argument on the beneficial role of sexuality for all ages and statuses, which needs to be commonly accepted and promoted in society for all married adults to reduce anxiety and social reactions about the limits of sexual expressions in later life. Though many view sexuality in later life with great ambivalence, and some even understand theirs as a liability, such responses may be manifested in ignorance of basic aspects of sexuality, anxiety, and fears due to societal positions regarding sexual expressions and uncertainty about the limits of sexual expression. However, this study aligns with recent literature on the beneficial role of later-life sexuality and hereby creates awareness of the positive aspects of sexuality in later life and calls for social and medical support for the aged to access and receive sexual relations all through their later life.

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Author contributions

SSE, CFE, and PEU conceptualized and designed the study. SSE, OBO, and COO were involved in data collection/acquisition and statistical analysis. All authors (GOO, ACC, SSE, CFE, OBO, COO, and PEU) were involved in the writing and revising of the manuscript for intellectual content. All authors read, approved the final manuscript, and agreed to be accountable for all aspects of the work.

Ethical policy and Institutional Review Board statement

The study was approved by the Health Research and Ethics Committee of the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu State (ethical approval no: NHREC/05/01/2008B-FWA00002458-1RB00002323).

Helsinki Declaration

Authors declare that the study was conducted in accordance with the ethical principles of Helsinki declaration.

Patient declaration of consent

The purpose of the study was explained, and all participants gave their informed consent before participating in the study.

Data availability statement

The respondents did not give consent for their individual data to be shared publicly, however the anonymous-ed data is available upon reasonable request through the corresponding author.

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Conflicts of interests

There are no conflicts of interest.

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