

ORIGINAL RESEARCH ARTICLE

Perceived causes of change in Nigerian adolescent sexual risk behaviour – Results from semi-structured mobile instant messaging interviews

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Abstract

The study explores the perceived causes of change in sexual risk behaviour among Nigerian adolescents over the past years. By embedding the results into a theoretical context, the study aims to further develop interventions targeting adolescent sexual health. To do so, 23 semi-structured interviews are conducted through the mobile-instant-messaging tool WhatsApp. The interview sample consists of both female and male adolescents and adults from different regions in Nigeria. The interviews are conducted as simultaneous chats and analysed based on the qualitative content analysis approach. Respondents perceive a multitude of different factors as causes of change in sexual risk behaviour among Nigerian adolescents. They can be categorised into (1) individual factors, (2) structural factors, and (3) socio-cultural factors. Interrelations between the different factors can partly be observed. The other factors are mostly modifiable and can therefore contribute to reducing adolescent SRB. (*Afr J Reprod Health* 2022; 26[12]: 32-40).

Keywords: Adolescents, Nigeria, sexual risk behaviour, causes of behaviour change, mobile instant messaging interview

Résumé

L'étude explore les causes perçues du changement des comportements sexuels à risque chez les adolescents nigériens au cours des dernières années. En intégrant les résultats dans un contexte théorique, l'étude vise à développer davantage les interventions ciblant la santé sexuelle des adolescents. Pour ce faire, 23 entretiens semi-structurés sont menés via l'outil de messagerie instantanée mobile WhatsApp. L'échantillon d'entretiens est composé d'adolescents et d'adultes de sexe féminin et masculin de différentes régions du Nigeria. Les entretiens sont menés sous forme de chats simultanés et analysés sur la base de l'approche d'analyse de contenu qualitative. Les répondants perçoivent une multitude de facteurs différents comme causes de changement dans les comportements sexuels à risque chez les adolescents nigériens. Ils peuvent être classés en (1) facteurs individuels, (2) facteurs structurels et (3) facteurs socioculturels. Des interrelations entre les différents facteurs peuvent en partie être observées. Les autres facteurs sont pour la plupart modifiables et peuvent donc contribuer à réduire le SRB chez les adolescents. (*Afr J Reprod Health* 2022; 26[12]: 32-40).

Mots-clés: Adolescents, Nigéria, comportement sexuel à risque, causes du changement de comportement, entretien par messagerie instantanée mobile

Introduction

Sexual risk behaviour (SRB), such as early debut of sexual activity, unprotected sexual intercourse, and having multiple sexual partners, can have various consequences, both on individual and societal levels. It increases the likelihood of contracting HIV/AIDS or other STDs and unwanted pregnancy. Other consequences include complications during childbirth, miscarriage, illegal/unsafe abortions, child abandonment, psychosocial problems, school drop-outs, and increased infant and maternal

mortality rates¹⁻⁹. The mentioned consequences affect sub-Saharan Africa (SSA). In 2019, the subcontinent accounted for more than two-thirds of global HIV prevalence, and the rate of unwanted pregnancies was about 42% higher than the corresponding global prevalence¹⁰⁻¹¹. Moreover, SSA had the highest maternal and infant mortality rate compared to other regions¹².

Adolescents are disproportionately affected by the mentioned consequences due to their comparatively low maturity, hormonal changes, missing support and generally increased risk-taking

behaviour^{6,9,13-15}. According to UNAIDS, in 2020, 27% of the global HIV incidence was among young people aged 15 to 24 years¹⁶. At the same time, the percentage of women who consider their pregnancy unplanned is higher among young women (24 years old or less)¹⁷. Adolescent women also have significantly higher abortion rates than other age groups¹⁸.

Nigeria is the country with the sixth-highest number of adolescents globally (41.23 million) and, at the same time, disproportionately affected by adverse health outcomes concerning SRB^{14,19}. The UN predicts an increase in the number of Nigerian adolescents to about 78 million by 2050. Nigeria would thus be the country with the third-highest proportion of young people worldwide, having a good chance of achieving a demographic dividend^{14,19-21}. However, investments in adolescent sexual and reproductive health, among other things, are a fundamental prerequisite for achieving the demographic dividend^{9,20}. Despite various national and international efforts, SRB among adolescents and its adverse health outcomes remain a major global health problem that requires further target-group-oriented interventions^{14,22}.

To effectively reduce unwanted or unconsciously practised SRB among adolescents, it is essential to determine both individual and structural causes of behavioural changes still largely unclear^{14,23-25}. This study investigates the perceived causes for changes in adolescent SRB, using Nigeria as an example due to its special demographic conditions. The aim is to make future behavioural changes more predictable and to derive necessary interventional and preventive measures to reduce unintended or unconsciously practised SRB.

Methods

A qualitative cohort analysis was conducted to investigate the perceived causes for changes in SRB among Nigerian adolescents. Both adolescents (cohort 2) and adults (cohort 1) were asked about their sexual behaviour during their adolescent years. On this basis, behavioural changes and underlying contextual and individual determinants in both cohorts were examined and hypothetical as well as directly perceived reasons for behavioural changes were derived.

Participants

In total, 23 semi-structured Mobile Instant Messaging (MIM)-interviews were conducted between July 2021 and December 2021. Participants were recruited through local NGOs as well as federal universities in Southern (Lagos, Benin City, Nsukka), Central (Abuja) and Northern (Kano) Nigeria. They were selected based on age and sex (adolescents: 15-24 years, adults: 30-39 years). The Ethics committee of Bielefeld University granted ethics approval (2020-031_W_S) and all interviewees participated in an individually administered informed consent procedure.

Interview guide

The interviews focused on relationship and role understanding, sexual behaviour, personal attitudes, perceived social norms and sex education. The two main research questions that guided the interviews were: (1) What are the perceived causes of change in adolescent SRB? (2) Do female and male adolescents differ regarding behavioural changes and perceived causes? The design of the underlying interview guide was based on the Theory of Planned Behaviour (TOPB) by Ajzen and the bioecological systems theory by Bronfenbrenner and Morris to consider both individual and structural determinants of human behaviour and behavioural changes²⁶⁻²⁷. The interview guide included basic questions to prompt respondents (cohort 1) to think (retrospectively) about their adolescent years. The initial interview questions focused on relationship and role understanding as well as sexual behaviour and personal attitudes towards SRB. To understand how respondents have been sexually educated and how they perceived social norms regarding adolescent sexual behaviour, general and hypothetical questions followed to create a pressure-free setting and encourage respondents to talk and give concrete examples. The interview guide was pre-tested and slightly modified consequently.

Interview process

The interviews were conducted as semi-structured in-depth interviews using Mobile Instant Messaging (MIM). MIM tools are among the most popular and most often used tools for online communication,

especially among adolescents²⁸, used by over 90% of social media users in Nigeria. Due to their temporal and spatial flexibility, low cost, time efficiency, simple operation, and wide range of expression forms, MIM tools are increasingly finding their way into empirical research. The MIM tools create a comfortable and pressure-free atmosphere which explains their usefulness for research on sensitive topics, such as sexual behaviour²⁸⁻³¹. Despite the various advantages, MIM tools are vulnerable to technical failures, and selection bias, reduce spontaneity and require a particular consideration of ethical issues²⁸⁻³⁰.

Interview preparation

A preliminary survey was carried out, which identified WhatsApp as the most suitable and accessible MIM tool. Compared to other MIM tools, WhatsApp Messenger shows the highest number of users worldwide (>2 billion in >180 countries)^{29,32}. It provides various communication functions such as one-to-one and group text chats, audio and video calls and messages, as well as posting status updates. These functions are available both in an end-to-end-encrypted mobile and desktop version. Furthermore, WhatsApp allows checking connectivity status and time of message transmission, reception, and perusal. The described functions have proven helpful for daily communication and conducting MIM interviews²⁹. Mobile data packages were purchased and transmitted to the participants as a minimal incentive to cover mobile data expenses during the interview process.

Interview conduct

Interviews were conducted as simultaneous chats allowing for queries on the interviewees' and interviewer's ends. The interviewer used the WhatsApp desktop version to facilitate the interview and data admission process and to be able to conduct several interviews at the same time. Participants answered interview questions mainly by text messages and audio messages, screenshots, photos, weblinks and emojis for better expression. Based on the pre-test, the interview duration was initially scheduled for one hour. The average length was 86 minutes and ranged from 34 to 159 minutes.

Analysis

The analysis was based on the qualitative content analysis approach by Kuckartz³³. In the first step, the chat histories were transferred into standard transcriptions and then reviewed for accuracy and completeness. Participants were assigned an identification number to secure anonymity. After reviewing all the interviews and summarising the most important aspects of each transcript, broad themes occurring across all transcripts were identified and deductively coded into main categories using MAXQDA software. Then, there was familiarisation by reading and reviewing the transcripts, and single phrases or paragraphs were assigned to the different main categories. Subcategories were created from relevant main categories and then coded inductively based on the preliminary results. All the main and sub-categories were then examined regarding possible interconnections. In the last step, representative quotes for each relevant category were identified.

Results

Socio-demographic characteristics

A total of 23 persons participated in the qualitative study, of which 13 (56.5%) were female and 10 (43.5%) were male (Table 1). None of the respondents considers him- or herself diverse. About 11 (47.8%) of the participants were between 15 and 24 years old and 12 (52.2%) persons were in the 30-39 age group at the time of the interview. Nigeria is broadly divided into south and north, aside from the sub-regions. The majority of the sample (60.9%) comes from the southwest region. Four other participants (17.4%) live in the southeast region and one participant (4.3%) in the northeast, south-south and northwest regions. The remaining 2 participants (8.7%) reside in the north-central region.

Perceived reasons for behavioural changes

A variety of factors were identified, which, hypothetically or from the respondents' point of view, led to changes in Nigerian adolescent SRB in the past years. They can be divided into (1) individual, (2) structural and (3) socio-cultural factors of change.

Table 1: Socio-demographic characteristics of the sample

Variable	Characteristics	N (absolute)	N (relative)
Age-group	15-24	11	47,8
	30-39	12	52,2
Sex	Female	13	56,5
	Male	10	43,5
	Diverse	0	0,0
Region	Southwest	14	60,9
	Southeast	4	17,4
	Southsouth	1	4,3
	Northcentral	2	8,7
	Northeast	1	4,3
	Northwest	1	4,3
Total		23	100,0

Individual factors

Participants observed physiological maturation processes among Nigerian adolescents throughout the past years. Young people nowadays seem to be earlier mature and to (be able to) reproduce earlier than adolescents in the past. Participants perceive this process as a cause of higher rates of premature sexual intercourse. A male adult observed,

But in our society today, where kids of 16-17 are already in the university, attending birthday parties, clubs etc., you will find out that the age [at first sex] will drop from 20 years.

Further, participants describe changes in general consumption patterns. Nowadays, financial and material aspects play a more vital role than in the past. According to the respondents, this process is a driver for SRB, as the narrative below expresses:

[...] [the] present society where [yo]u see a mother and daughter [h]aving sex wit[h] the same man just for monetary gain. (Male adult).

Another process respondents perceive as a cause of change in Nigerian adolescent SRB is the development of somewhat distant partner relationships into intense romantic relationships in early adolescence. In addition, there was a shift in the perception of the prevailing social norms underlying sexual behaviour. Whereas adolescents in the past felt many expectations regarding their sexual behaviour, young people today believe that society does not care about it. A female adolescent noted,

Nowadays, I don't think society do[es] anything about age [be]cause they see these

young children with boys ways older than them and they say nothing.

Female and male respondents differ in their perception of the social norm regarding the use of contraceptives. While most male adolescents have the impression that society does not support the use of contraceptives, most female adolescents assume that society attaches great importance to it. It is also noticeable that male youths let themselves be pressured by the expectations of their social environment while female youths, on the other hand, focus on their expectations. Further, the interviewees allude to sex-specific differences in the traditional role perceptions prevailing in society. E.g., society grants men more freedom in their behaviour than women but, in return, automatically makes men responsible for the upkeep of women. Interviewees perceive these different sex-specific expectations as decisive for the differences in SRB between female and male adolescents.

Structural factors

Respondents allude to a general digitalisation process. Nowadays, young people have more opportunities to use digital media and they are also less strictly monitored than in the past. The newly gained digital possibilities facilitate making contacts and influence the moral attitudes of young people. A male adult observed,

[...] my childhood was all ab[ou]t our studies and we were too scared or shy to ask a g[ir]l out [...]. [It is] way different nowadays, wit[h] [the] trend of technology [everything is] much more accessible and the gospel ab[ou]t morality is fading away.

Especially the use of social media, which shows new ways of life, that young people often try to copy, increased within the last few years. A male adult stated,

Because children of th[e]s[e] days act more on what they see online, like social media platforms and what they watch in movies.

This process is additionally driven by globalisation and the increasing orientation toward western values and customs. As stated by the participants, adolescents nowadays separate more often, consume more intoxicants and go to discotheques more often, all of which are risk factors for SRB. Further, dangers going hand in hand with digital media (e.g., internet fraud/"Yahoo Boys") are

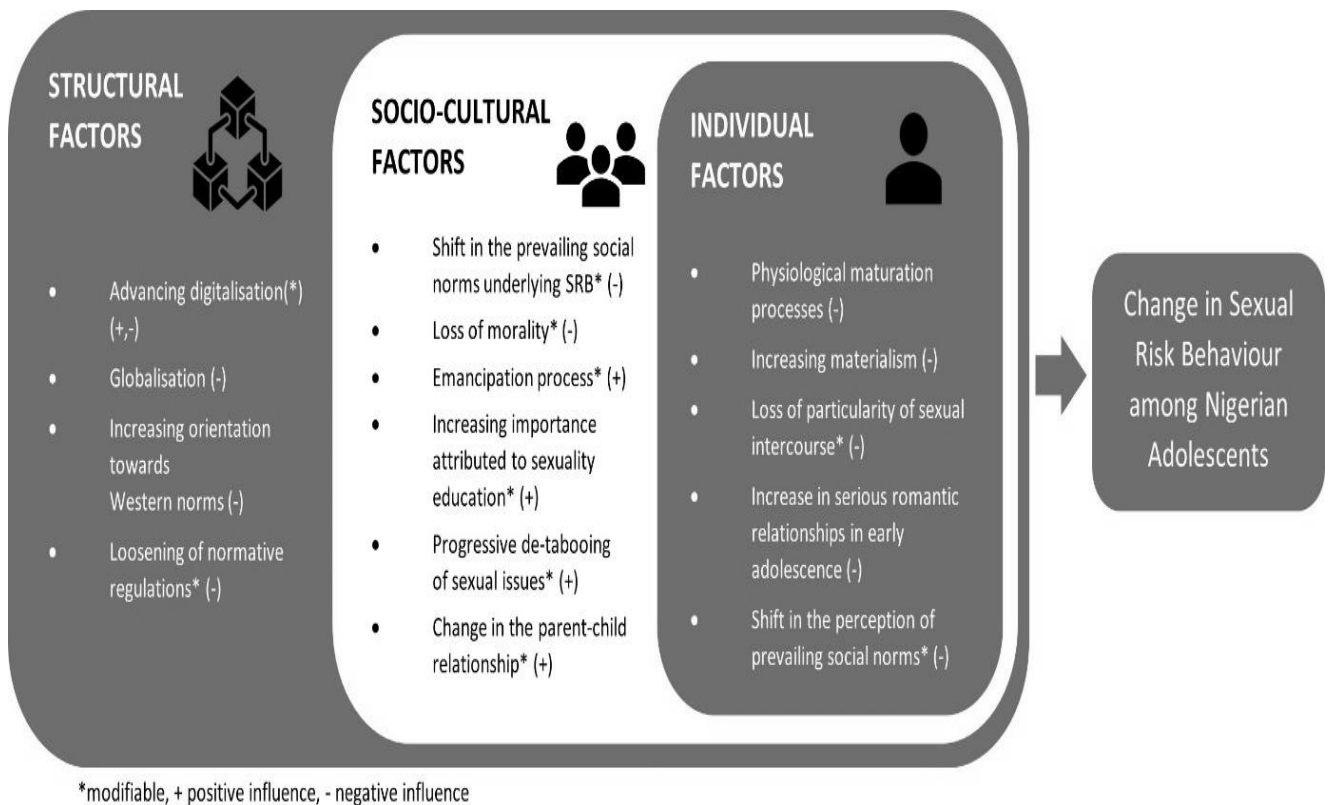


Figure 1: Perceived causes of change in Nigerian adolescent SRB [own figure^{based on 37}]

perceived to increase the risk of having irregular sexual partners. However, according to the interviewees, the newly gained possibilities also result in advantages, such as the possibility of online sexuality education.

Another structural factor that respondents perceive as a cause of change in SRB among Nigerian adolescents is the loosening of normative regulations that have taken place in recent years. According to the participants, doctors today have significantly fewer restrictions on offering and performing abortions (not legalised but highly prevalent) than in the past. Also, emergency contraceptives are now available without a prescription. Both are perceived reasons for adolescents' susceptibility to SRB.

Socio-cultural factors

Most respondents have the impression that socio-cultural and moral norms underlying sexual behaviour have changed significantly in recent years. They perceived a change in the value of partner relationships and sexual intercourse from

something special and spiritual or sacred to something profane and mundane. Hence, most adolescents are less moralistic about sexual relations. The narratives below depict the respondent's perceptions. A female adolescent observed,

Nowadays [...] they [adolescents] don't know what a relationship is or don't value it[,] they tend to jump from one partner to another [...]

[...] the old society used to see sex as a sacred act meant for real adults or married p[eo]ple but [the] present community sees sex as no big deal. (Male adult).

Another important socio-cultural factor is the emancipation process in Nigeria in recent years. Women have become more (financially) independent and the once-cultural convictions regarding the man's (financial) duty to provide for the woman are becoming less important. A male adult explains,

Most ladies feel it's a man's responsibility to cater to their needs [...]. It's an [A]frican culture anyway [...]. Though it's

changing...with most ladies travelling out for further education...there is a culture shift now.

Moreover, respondents noticed that sexuality education has become more important in society in recent years and that parents play a more critical role in this regard. A few years ago, sexual issues were a taboo subject. Nowadays, parents are more open about it and adolescents consider them their most important source of sex education. According to respondents, this has contributed to adolescents being at a lower risk of receiving false information or being negatively influenced by other (dubious/untrustworthy) sources and thus has had a positive effect on adolescent SRB.

Figure 1, developed from the primary data, presents the specific factors of change in Nigerian adolescent SRB on the structural, socio-cultural and individual levels. The structural factors are broader, including digitalisation, globalisation, and westernisation, which generally influence social behaviour, including SRB. The socio-structural factors are social norms, morality, and de-tabooing of sexual issues. Such factors influence the changing definitions of sexuality and sexual relations, some of which, incidentally, are tolerable to some SRBs. Then, the individual factors, particularly early sexual debut, lack of particularity of sexual intercourse and shift in the perception of social norms, also influence changes in SRB among Nigerian adolescents. The figure also categorises some factors as modifiable, positive and negative.

Discussion

The presented results point to various factors that respondents perceive as causes of change in the SRB of Nigerian adolescents in recent years. Most of the perceived changes have a negative impact on adolescent SRB. In line with other findings, physiological maturation processes, such as the earlier onset of menarche, are seen as a significant cause of declining age of entry into sexual activity and a higher risk of premature pregnancies among adolescents³⁴.

Another critical factor is the decreasing value of moral convictions and the simultaneous increase of financial/material interests. This is because “materialism and consumerism erode both traditional and Christian [or religious] morals”³⁵.

These rising material and financial interests can, in turn, lead to both a higher prevalence of sexual intercourse with irregular partners and transactional sex, as found in another study on transactional sex among young women in South Africa³⁶. Hence, the increasing commodification of sexual relationships affects SRB. In addition, the loss of the particularity of sexual intercourse and the increase of romantic relationships in early adolescence among Nigerian youths in recent years also play a crucial role in the changing SRB. These phenomena can lead to both higher rates of the practice of sexual intercourse itself as well as the earlier debut of sexual activities among adolescents³⁷.

At the structural level, progressive digitisation, combined with the relaxation of normative regulations, globalisation and the increasing orientation towards Western values and customs, opened new ways of life and opportunities for adolescents. “Nigeria, which is made up of rich and diverse cultural values, is beginning to lose most of its cultural ideals, especially through the adoption of foreign culture showcased through the mass media”³⁸. These newly gained insights and opportunities, in turn, can lead to generally higher risk behaviour and thus to higher SRB rates.

The female empowerment process that respondents noticed in recent years is based on a determined increase in the Female Empowerment Index in Nigeria in the past years³⁹. From the respondents' point of view, this process has led to more (financial) independence among Nigerian youth and can thus reduce the need for transactional sex³⁶. In addition, respondents perceived a higher relevance attributed to sexuality education and the de-tabooing of sexual issues throughout the past years. This process can improve sexual knowledge among adolescents qualitatively and quantitatively and thus positively impact their sexual behaviour⁴⁰. For example, Gyan shows that many female adolescents, in particular, are still afraid of stigmatisation and do not take advantage of family planning services³⁴. Therefore, efforts to improving sexuality education will impact immensely on SRB. The different perceived causes of change in Nigerian adolescent SRB are partly interrelated and influence each other. These interrelations must be considered when deriving interventive and preventive measures to reduce unconsciously and unintentionally practised SRB.

Limitations

The topic dealt with is a very sensitive one. While the lack of face-to-face interviews could encourage many respondents to give accurate responses, it is impossible to completely rule out some socially desirable responses. Also, the danger of recall bias cannot be ruled out since adult respondents were interviewed about their behaviour as adolescents and might not remember every detail. In this context, it must also be mentioned that the study is not a classic longitudinal study but a sample-based cohort analysis, which must be considered when interpreting the results. Different independent people, forming part of two different cohorts, were interviewed at the same point in time and not followed up over a longer period. Conducting MIM interviews generally harbours a risk of discretionary selection, which cannot be avoided entirely despite the preliminary survey regarding the preferred interview tool. Another limitation of the study is that it focuses exclusively on sexual relations and does not consider gender aspects from a more general and diverse point of view.

Conclusion

The results point to various reasons that, according to the interviewees, have led to changes in the SRB among Nigerian adolescents in recent years (Figure 1). On an individual level, the perceived causes of change, such as physiological maturation processes, increasing materialism, and a shift in the perception of prevailing social norms, are all perceived to have negatively influenced adolescent SRB. In contrast, most of the factors on a socio-cultural level, e.g., a general emancipation process, increasing importance attributed to sexuality education, and a progressive de-tabooing of sexual issues, have had a positive impact from the respondent's point of view. Regarding the structural factors, such as digitalisation and the loosening of normative regulations, respondents described a mixed influence on SRB. Most of the described factors can be modified and therefore be used on both scientific and development-policy levels to reduce SRB among adolescents.

Implications and recommendations

In the research context, there is a need to investigate sex- and gender-specific differences, especially

regarding the perception of the prevailing social norm concerning contraceptive use. Furthermore, a more heterogeneous geographical distribution of participants should be aimed to allow a better investigation of possible regional differences. In general, it would be helpful to conduct a classic longitudinal study to identify direct behavioural changes and their respective reasons.

On a practical level, considering the positive impact of socio-economic independence on adolescent sexual behaviour, the results highlight a need for a further extension of youth empowerment. The topic has been partly de-tabooed within the family/parental setting and started to play a more critical role. This progress should be further addressed in the future to fully reap its potential. Considering the digitalisation process and the great importance that Nigerian adolescents attach to (social) media, future interventions should aim at integrating and regulating them in the derivation of preventive and interventive measures, e.g. in the framework of sexuality education or the provision of family planning services.

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