New Media Interventions for Adolescents Reproductive and Sexual Health: Evidence from Nigeria

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ABSTRACT
This paper assessed the extent of impact of new media communication intervention strategies by the National Agency for the Control of AIDS (NACA) in the fight against the poor reproductive and sexual health indices of adolescents in Nigeria. Findings indicate mobile telephony (Call Centre/Toll Free services) and Internet (Facebook) technologies as new media platforms that are being deployed to a large extent in the fight against sexual health problems of adolescents in Nigeria. The impact of new media communication strategies on the transformation of adolescents’ risky sexual behaviour and negative attitudes towards sexual health concerns was found to be positive, via the nature of feedback (calls and appreciation) the Agency receives from the general public. However, dearth of comprehensive empirical data made it difficult for the degree of influence to be statistically determined. To derive optimum benefits and greater interactivity from this strategy, the paper recommended among others that NACA should embrace an aggressive health marketing approach in selling its Call Centre and Facebook services, enlarge the space of its Toll Free (Call Centre services) by including subscribers on networks with the widest coverage and highest number of active lines — MTN and Glo, create specific databases for adolescents and young people, and develop a viable behaviour change monitoring mechanism.

INTRODUCTION
Policy makers and programme planners are showing greater concern in recent years over the increasing poor reproductive and sexual health indices of adolescents and young people in Nigeria. These concerns, Isiugo-Abanihe and Oyediran (2014) found from a review of literature stem from adolescents perceived increased vulnerability to the risk of sexually transmitted infections (STIs), including acquired immune deficiency syndrome (AIDS) (Knodel-lule, Sewankambo, & Morris, 1997; Preston-Whyte, 1994; Scommegna, 1996; Twa-Twa, Jeremias, Nakanaabi, & Sekimpi, 1997), the potential risks to their health due to early pregnancy (AbouZahr & Royston, 1991; Barreto, Thalia, Oona, Campbell, Davies, Fauveau, Fillippi, Garam, Mamdani, Rooney, & Toubia, 1992; United Nations, 1989), and the negative consequences of early and non-marital childbirth among young people’s life prospects (Hayes, 1987).

National surveys and independent studies have established the active sexual nature of Nigeria’s adolescents and reported the attendant reproductive and sexual health consequences of their sexual activity. Findings from the National Demographic Health Survey (NDHS, 2008), for instance indicated early sexual initiation. According to the report, (49%) of women 18-24 had sex before age 18 and (16%) of women 15-24 had sex before age 15. The report also notes that (26%) of men 18-24 had sex before age 18, and that (11%) women 15-24 and 22% of men 15-24 used a condom at first sex.

Teenage pregnancy and motherhood was identified as one of the outcomes of early sexual activity. According to the report, (18.0%) of women between the ages of 15-19 were already mothers and another (4.8%) were already pregnant with their first child. Other sexual and reproductive health problems that adolescents encounter include HIV/AIDS and other sexually transmitted infections (STIs), unsafe induced abortions, etc. A survey found, for instance, that (60%) of the HIV/AIDS cases reported in Nigeria in 1998 were among young people aged 12-24 years (NASCP, 1999). It was also found that (80%) of unsafe induced abortion-related complications are recorded among adolescent girls. In fact, unsafe induced abortion has been described as a school girls’ problem in Nigeria (NFHSP, 1991).

Nigeria has an estimated population of 174, 507,539 (NDP, 2013). Of this number, statistics show that 110,114,358 (63.1%) of the population consists of adolescents and young people. A breakdown of this figure shows that 76,461,896 (43.8%) are within the age structure of 0-14 years, while 33,652,462 (19.3%) are within the age structure of 15-24 years. This leaves the other age structures (25 – 65+) with 64,393,181 (36.9%). Viewed against the background of the outcomes of adolescents sexual activities discussed in the preceding paragraph, these statistics suggest a looming national catastrophe if meaningful and practical interventions are not worked out urgently against these poor reproductive and sexual health indices. The looming consequences would be horrendous, multi-dimensional, and multi-sectoral. For instance, the continuous poor reproductive indices of adolescents will multiply health costs, put pressure on available health services, orchestrate untimely deaths, deplete the work force, and ultimately limit the productivity of the nation.

The productivity of the nation will be limited because the productive sector of the economy is significantly being lost to HIV/AIDS and other STIs. These considerations perhaps underscore the concerns of policy makers and planners and explain their search for a practical intervention.
The search for intervention has influenced key legal and policy provisions about adolescents’ reproductive health and has led to the establishment of statutory bodies and agencies. One of such agencies, the National Agency for the Control of AIDS (NACA) was established by the National Agency for the Control of HIV/AIDS Act 2006 to ensure the control of HIV/AIDS and other sexually transmitted infections thereby promoting the sexual health of adolescents and Nigerians generally. Specifically, the Act establishing the Agency mandates it to plan and coordinate activities of the various sectors in the National Response Strategic Framework and to facilitate the engagement of all tiers of government and all sectors on issues of HIV/AIDS prevention, care and support.

Among other factors that studies have identified to account for the prevalence of sexual and reproductive health problems among Nigerian adolescents is inadequate knowledge, distorted information, and poor behaviour change communication strategies (Ihaji, 2001; Kembe & Kembe, 2004; Odu & Akande, 2006; Imoh, 2008 & Iwokwagh, 2008). To effectively address the poor reproductive health indices of Nigerian adolescents it has been argued that “it is important to have an understanding of the youth, culture surrounding sexuality, their sources of information and the factors that influence them” (Ndutai & Wanbui, 1996). The National Agency for the Control of HIV/AIDS, aware of this challenge is experimenting with new media platforms with the objective of creating and promoting a favourable climate for dialogue and interaction that will lead to greater understanding of adolescents and their reproductive and sexual health needs. This paper therefore examines the impact of NACA’s new media communication intervention strategy on adolescents’ reproductive and sexual health in Nigeria.

DISCOURSE ON CONCEPTS

New Media

Refer to an amalgam of hardware (computers) which could be desktops, laptops, palmtops, other handheld multimedia devices and software (applications) that support the creation, exchange and distribution of content on the Internet (online). Compaine (2002) evolved a set processes or characteristics that have gained universal acceptance as being integral to any definition of new media as a concept. Therefore to be accorded the status of new media, communication and media technologies should be manipulable, networkable, compressible, and interactive. According to (Wikipedia, 2011), the term new media encompasses all the digital, computerised, or networked information and communication technologies that have emerged since the latter part of the 20th Century.

New media therefore subsumes all digital technologies ranging from the satellite transponder to the ipad. Within this range of technologies are such innovations as the Internet, individual websites and blogs, computer multimedia, computer games, mobile telephony, and even small or digital media, such as computer discs with read-only memory (CD-ROM), and digital versatile discs (DVDs) (Idiong, 2012).

Adolescents

Many statistical reports treat individuals within the age range of 10 to 19 as adolescents. Others see adolescents as those between 15 and 24 years (Orhewere, 2005). Perhaps, it could be said that age limit may not offer a generally acceptable definition of adolescents. For instance, Cressel (cited in Sperling, 1982) put it at between 10-16 years; Sheltzer and Stone (1976) peg it at 12-18 years. Oladele (1989) places it at 10-20 years, while, Lar, Okpde and Bulus (1992) and Okpde (1994) see it at 11-21 years. Okafor and Ugwuegbulam (2000) arrive at the age bracket of 10 and early 20's from a review of related literature (Abekhale, 2005).

McCauley and Salter (1995, p. 3) suggest what perhaps, appears to be a universal definition of adolescents in terms of age. According to the authors, “a young person (adolescent) is no longer considered as a child, and at the same time he is not yet an adult.” Within the context of this seeming ambivalence about the age bracket of adolescents, it is safe to postulate in this study that adolescents are young people (boys and girls) who are between 13 and 24 years of age.

Reproductive and Sexual Health

Within the framework of the World Health Organization's (WHO) definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health, or sexual health/hygiene, addresses the reproductive processes, functions and system at all stages of life. Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safer sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. One interpretation of this implies that men and women ought to be informed of and to have access to safe, effective, affordable and acceptable methods of birth control; also access to appropriate health care services of sexual, reproductive medicine and implementation of health education programs to stress the importance of women to go safely through pregnancy and childbirth could provide couples with the best chance of having a healthy infant (Wikipedia, 2014).

Intervention

Intervention in this study refers to measures or mechanisms adopted in order to transform the negative sexual health indices of Nigerian adolescents into positive sexual outcomes.

Media, Adolescents and Sexual Activity

The media are identified as one of the major sources of sexual information for adolescents. Baran (1976) notes that important relationships exist between individual’s perception of media portrayals of sex, and their actual sexual satisfaction. Courtright and Baran (1979) also observe that the mass media are powerful agents in the acquisition of sexual information by the young. Brown, Campbell and Fischer (1986) indicate that heavy doses of sexual content on music videos make adolescents sexy. In Nigeria, research finding by Barker and Rich (1990) suggested that many urban young men and women learnt about sex from popular magazines such as Ikebe Super, Lolly, and Fantasy. Others said they learnt about sex from films and adult movies. Orhewere (2005) in a study of home video and sexual socialisation of adolescents in Nigeria found that a large number of adolescents are exposed to sexual content on video films.
The position that the traditional media are potent factors in the sexual socialisation of adolescents also applies to the new media to a large extent. Pascoe (2011) for instance, observes that young people negotiate intimate relationships online, including flirting, breaking up, and sexual encounters. According to Evers, Albury, Byron and Crawfold (2013, p. 1) "Social media and social network sites (SNS) are an evolving area for sexual health communication with young people. They present opportunities and challenges for sexual health professionals and young people alike, such as learning through interactivity and addressing concerns about privacy. “ The position that new media platforms (social media and SNS) are evolving mechanisms for sexual health communication underscores the essence of this study.

**METHOD**

The Focus Group Discussion method was used in this study for its “flexibility in question design and follow up” (Wimmer & Dominick, 1997, p. 7). Four Focus Group Discussions of ten respondents per group were conducted with undergraduate students in five departments of the School of Information and Communication Technology (SICT) Federal University of Technology, Minna, Nigeria. These departments were: Computer Engineering, Computer Science, Cyber Security Science, Information and Media Technology, and Telecommunications Engineering). Respondents were 17-24 years old, and were both male and female with an equal number of male and female respondents. A total of forty respondents participated in the study, with twenty males and twenty females. Eight participants were drawn from each of the five departments. Qualitative content analysis was also used to make inferences from the content of the Agency’s Facebook page. According to Akpan (1990, p. 301) “content analysis is a powerful and highly reliable research tool, developed specifically for investigating problems in which the content of communication serves as the basis of inference.”

**RESULTS**

**Nature of NACA’s New Media Operations**

The National Agency for the Control of AIDS (NACA) operates a call centre (6222) for 24 hours a day for Etisalat and Airtel subscribers only. It is Toll Free and open to people of all ages to make enquires about reproductive and sexual health issues. Short Message Services (SMS) are also sent to subscribers on Etisalat and Airtel subscribers to create awareness and to encourage them to call NACA’s HIV Toll Free line (6222) for information on HIV/AIDS and STI related issues. According to the Agency, calls come in from different states and different regions of Nigeria from people of different ages and different sexes, who make enquirers on different aspects of reproductive and sexual health. The Agency also maintains Facebook and Twitter accounts through which it makes posts on HIV/AIDS, STIs and issues related to reproductive and sexual health. It also sends messages to other Facebook accounts to enlarge the space, and encourage them to invite their friends to like its Facebook page and to follow its Twitter handles. NACA also organises competitions with prizes for the first second and third positions to encourage greater participation. A HIV/AIDS photo competition with the theme: Get tested, know your HIV status has been organised for March 2014 with 5000, 3000, and 2000 air time as first, second and third prizes.

**Database of Nigerian Adolescents**

The Agency at the moment does not have specific database for adolescents, what is available is a general database.

**Sample of Questions, Posts and Responses on Facebook**

A sample of enquires, posts and responses made on NACAs Facebook page is considered below:

**Enquiry:** “Plese can one get inferted by broken condom and what are his chances of not”  
Chimezie Light Chibunna (sent 30 January at 16:31 via Mobile)

**NACA’s Response:** “Yes you are at risk in such circumstances like a broken condom during sexual intercourse. We advice you to visit a health care facility immediately to access Post Exposure Prophylaxis on a doctor's recommendation. And subsequently go for an HIV test. Call HIV Toll Free line by dialling 6222 for further information, this service is available on Airtel and Etisalat network only. Thank you.” (Reply 30 January @18:02)

**Enquiry:** “am Comrade Odeh Kenneth Odeh, the President of Benue State student in FCE PANKSHIN PLATEAU STATE. Can NACA hold HIV/AIDS Awareness Program in my school . . . my student are dying . . .pls how do I write you people? " Odeh Kenneth (sent 6 January at 11:27) No response from NACA.

**Post:** “I was tested for HIV/AIDS at Sheik Mohammed Jidda general hospital Kuroda Kano six times (6) and the result was negatives. Alhamdullilahi rabil alamin” Abdullahi Sulaiman (sent 28 October 2013 at 19:00 via Mobile)

**Post:** “Pls try a blood test at any heart to heart centre near you to confirm your health status” Abdullahi Sulaiman (sent 2 November 2013 at 17:05 via Mobile)

**Post:** “HATE THE DISEASE NOT DISEASED . . . Condoms are cheaper than HIV/AIDS. I strongly advocate for safe sex” Adegboyega Idris Adebowale (sent 7 May 2013 at 15:28)

**Post:** “Celebrate Valentines Day responsibly” (NACA 13 February)

**Post:** “Val and sex, are they related?” (NACA 13 February)

The researchers were not privy to any information on the nature of questions adolescents and the general population ask on NACA’s Call Centre about reproductive and sexual health, neither did they access data on the average number of calls per month/year.
**Perceived Impact of Call Centre Services on Adolescents Sexual Behaviour and STIs Control**

The Agency believes the HIV Toll Free Line is having a lot of positive impact on the sexual behaviour and by extension, the sexual health of adolescents and Nigerians at large. This, the Agency says is evident from the nature of feedback it gets from individuals who either call or post messages on its Facebook page to express appreciation for the messages and pieces of information received.

Focus Group Discussions however raised a barrage of issues about the impact of the Call Centre Services on adolescents in Nigeria. The first issue bordered on awareness. Only one of the discussants reported knowing about the Call Centre. One other remembered seeing a pop-up on the Facebook asking him to like the Agency’s page, but he said he never did. The other discussants said they have neither seen a pop-up on Facebook nor received any SMS from the Agency advertising its Call Centre Services. One respondent said “NACA should have a Facebook page because most agencies have Facebook pages but I have never bothered to look it up” (500 Level Computer Science, Male). In other words they were totally ignorant of the existence of a HIV Toll Free Line although some of them have been subscribed to Etisalat and Airtel networks for over seven (7) years. The situation was not radically different with its Facebook presence. It is only logical to infer from the foregoing that what respondents know nothing about cannot have any impact on them.

Another issue that came to play was that of portability and accessibility. Over half of the respondents said phones were more portable and easily accessible and that they did most of their browsing on the phone rather than the computer. According to one of the respondents, "laptops are too big and overrated, that means stressful to carry about" (400 Level IMT, Female). The point, however, is that materials are rendered on Smartphone differently from the format they take on computer. Perhaps the format the Agency’s materials adopt on-line are computer friendly and Smartphone unfriendly and so may account for their low accessibility among adolescents and young people who are largely Smartphone addicts. This was also the case with an exploratory study where it was reported that “Use of SNS and social media differed when the format the Agency’s materials adopt on-line are computer friendly and Smartphone unfriendly and so may account for their low accessibility among adolescents and young people who are largely Smartphone addicts. This was also the case with an exploratory study where it was reported that “Use of SNS and social media differed when the format the Agency’s materials adopt on-line are computer friendly and Smartphone unfriendly and so may account for their low accessibility among adolescents and young people who are largely Smartphone addicts. This was also the case with an exploratory study where it was reported that “Use of SNS and social media differed when the format the Agency’s materials adopt on-line are computer friendly and Smartphone unfriendly and so may account for their low accessibility among adolescents and young people who are largely Smartphone addicts.

**DISCUSSION**

Results as presented above raise a number of issues. Arising from the nature of NACA’s new media operations for example, are the issues of awareness, reach/access, and feedback. As findings from the FGDs show, there is very low awareness about the National Agency for the Control of AIDS (NACA), its Call Centre services and Facebook presence even among undergraduates in the School of Information and Communication Technology (SICT) who are not only heavy users of mobile technologies, but also very active on-line. It is interesting that over 60 percent of the students that made up the FGDs were subscribers of Etisalat and Airtel, some for a period of seven years, others between two and three years. One of the reasons they gave for their loyalty to these providers is their relatively low and student friendly tariffs. However, they reported that all these years, they have never received any SMS from any of these service providers notifying them of the availability of a HIV Toll Free Line via which they can make enquiries on HIV/AIDS, related STIs and reproductive and sexual health issues generally. Only one respondent had seen Pop-Ups (advertisements) on Facebook encouraging him to like NACA’s page, but he said he never did. There is therefore an urgent need for NACA to adapt an aggressive sexual health marketing approach in creating awareness on the availability of a HIV Free Toll Line by taking the lead in sending Short Message Services periodically to all subscribers on the chosen networks advertising available services and encouraging them to buy into such services rather than waiting for individuals to initiate the process by being the first to call.

With regards to reach/access, questions have been raised as to what criteria influenced the selection of Etisalat and Airtel networks for the Call Centre (Toll Free) Services at the expense of MTN and Glo two networks that have the widest coverage and the highest number of active lines in the country. According to CKN Nigeria, Nigeria’s indigenous GSM operator, Globacom and MTN remain market leaders in Nigeria’s Telecommunication industry. Specifically, the report notes that by July 2013, MTN had 55,238,430 active lines, Glo 25,019,862, Airtel 21, 591,904 and Etisalat 15,303,647. These statistics clearly show the reach and access potentials of the duo of MTN and Glo in the Telecommunications industry in Nigeria and suggest that NACA should consider the possibility of enlarging the space by expanding its Toll Free (Call Centre) Services to include subscribers on MTN and Glo networks.

It has also been observed that staff of the Information Technology unit of the Agency should show more diligence in providing timely feedback to people who make enquiries on its Facebook page. This strategy will motivate adolescents, young people, the general public, and will encourage greater interactivity on-line. This observation arises from the fact that some enquiries on the Agency’s Facebook page were left unanswered, even those that had potentials for facilitating the work of the Agency. Kelvin Kio Ryan, for instance, made the following enquiry twice, on 5 March, 2014, first at 12.27, and again at 12.29 “I have song on HIV awareness . . . how do I go with it” however, there was no response from the Agency. This is a clear indication that he was not given a chance to share his message with his contemporaries. Kenneth’s enquiry particularly drives home the argument that is being made, he made a valid enquiry on how to reach NACA so it can organise and hold a HIV/AIDS awareness programme at Federal College of Education Pankshin, Plateau State to stop his fellow students of dying from HIV/AIDS and related diseases, however, there was no response from the Agency.

There is also a dire need for the Agency to create specific database for adolescents and young people in the country for greater connectivity and interactivity. When built, the database will assist the Agency to sensitise adolescent subscribers of availability of the Call Centre Services. This can be done by liaising with telecommunications service operators like MTN, Glo, Etisalat, and Airtel to access the data of registered adolescent subscribers and following them up with relevant
It is important that the Agency should explore the possibility of instituting a more viable mechanism for monitoring behaviour change in the target population. Workshops, community visits, discussion boards, hot lines, etc should be created primarily for the purpose of monitoring, impact assessment, and evaluation of outcomes. Perhaps, the Indonesian example would serve as a model for emulation. Lee and Chib (2008) observed that mobile phones were distributed to 223 rural midwives in the Tsunami affected region of Aceh Besar and were monitored on the quality of their services. It was therefore contingent on the midwives to generate from their communities, medical information on their patients for the purpose of diagnosis and transmit such information through the Short Message Service (SMS) to the central database for action. NACA should also consider equipping community peer educators with GSM phones and other multimedia enabled wireless mobile devices with which data (gendered statistics) on improved sexual behaviour among adolescents are sent via enabled platforms to central databases that would be created for the purpose of monitoring behaviour change. It would also be ideal for the Agency to introduce a public alert system for adolescents experiencing positive changes in their sexual behaviour to send SMS stating their experiences.

On the whole, the Agency’s efforts at creating awareness on HIV/AIDS, STIs and reproductive and sexual health issues is commendable, particularly the idea of organising competitions for prizes for adolescents and youth on thematic and critical areas. Sensitisation campaigns on-line; encouraging target groups to go for voluntary HIV/AIDS and related tests is also a step in the right direction which should be commended.

CONCLUSION

Nigeria is reported to have one of the worst adolescents’ reproductive and sexual health indices in Sub-Saharan Africa. Surveys by (NFHSP, 1991; NASCP, 1999; & NDHS, 2008) found that adolescents account for (80%) unsafe induced abortion-related complications; constituted (60%) HIV/AIDS cases reported in 1998, while (65%) have had sexual intercourse before the age of 18 years. The poor adolescents reproductive and sexual health status on the one hand, and that of the general Nigerian people on the other hand led to the setting up of NACA by the Federal Government in 2006 to ensure the control of HIV/AIDS and other sexually transmitted infections thereby promoting the sexual health of adolescents and Nigerians generally. The Act establishing the Agency mandates it to plan and coordinate activities of the various sectors in the National Response Strategic Framework and to facilitate the engagement of all tiers of government and all sectors on issues of HIV/AIDS prevention, care and support. In response to its mandate and to the increasingly complex public health problem of adolescents’ sexuality, NACA is experimenting with a range of new media technologies mobile telephony and the Internet (Facebook) with the objective of creating and promoting a favourable climate for dialogue and interaction that will lead to greater understanding of adolescents and their reproductive and sexual health needs.

Findings indicate mobile telephony (Call Centre/Toll Free services) and Internet (Facebook) technologies as new media platforms that are being deployed to a large extent in the fight against sexual health problems of adolescents in Nigeria. The impact of new media communication strategies on the transformation of adolescents’ risky sexual behaviour and negative attitudes towards sexual health concerns was found to be positive, via the nature of feedback (calls and appreciation) the Agency receives from the general public. However, dearth of comprehensive empirical data made it difficult for the degree of influence to be statistically determined. To derive optimum benefits and greater interactivity from this strategy, the paper recommended among others that NACA should embrace an aggressive health marketing approach in selling its Call Centre and Facebook services, enlarge the space of its Toll Free (Call Centre services) by including subscribers on networks with the widest coverage and highest number of active lines - MTN and Glo, create specific databases for adolescents and young people, and develop a viable behaviour change monitoring mechanism.

REFERENCES


Sexual health information via SMS. This was the case in Uganda, where (Etzo & Collender, 2010) observed that Celtel and AIDS Information Centre (an indigenous NGO) powered a SMS based quiz, christened Text to Change (TTC), which was used in providing AIDS awareness to 15000 mobile phone subscribers. In addition, the Agency should consider building mobile technology (particularly Smartphone) applications (software) that would support Mobile Advertising Services (MAS) for promotion of messages on safe sex practices among adolescents.


Nigerian Family Health Services Project (1991). Nigerian Family Health Fact Sheet NFHS Policy and Evaluation Division, Lagos


