Symbol Recognition and Interpretation of HIV/AIDS Pictorial Messages Among Rural Women in Abia State Nigeria

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Abstract

The study investigated the effect of use of symbols and pictorials in designing HIV/AIDS educational preventive interventions in selected rural communities in Abia State, Nigeria. One hundred and eighty respondents composed of female between the ages of (25-55) years were chosen for the study. Data were collected using structured questionnaire and focus group discussion and analyzed using descriptive and inferential statistics. Results show that about 89% of the respondents recognized pictures 1, while 56% of the respondents interpreted correctly, for picture 2, 62.2% recognized the picture while 76.7% interpreted correctly. For picture 3, 57% of the respondents were able to recognize the picture while 88% interpreted the pictures correctly. Also 66% of the respondents recognized the pictures while 69% of the respondents interpreted the pictures correctly. The result shows a significant difference between the conventional media (\( \bar{x} = 1.655 \)) and pictoral message (\( \bar{x} = 3.8764 \)). The study concludes that the respondents were able to recognise and interprete symbol, using conventional media but were more comfortable using pictorial’s. The study recommends that use of pictorial message for HIV/AIDS campaigns should be encouraged to benefit the women with low literacy skills.

Keywords: Visual literacy, women entrepreneurs and HIV/AIDS
Introduction

HIV/AIDS remains one of the world’s most critical and health problem globally, about 33 million people are currently infected with the disease, while over 20 million people have already died from the epidemic (UNAIDS, 2010). There is no known cure for AIDS, but infected people are increasingly gaining access to anti-retroviral drugs, which are still costly and inaccessible to the majority of those infected. Although a global problem, HIV/AIDS has had its worst impact on Africa (Onyenoro et al., 2014). The severity in sub-Saharan Africa and Nigeria in particular has been thoroughly documented and it includes the rapid loss of human labour and capital, reduced productivity socio-economic stagnation, poverty, hardship and misery. HIV/AIDS contributes immensely to the health burdens of African countries, depleting scarce resources, and reducing household coping capacity (WHO/UNAIDS, 2006).

In confronting HIV/AIDS crisis, Nigerian government has committed themselves to AIDS control and prevention programmes (Odomelem and Nwachukwu, 2011). In Abia State, various communication strategies have been used to sensitize the dangers of HIV/AIDS and appropriate preventive behaviour (Odomelem and Nwachukwu, 2014). Wileman (2003) defines visual literacy as the ability to “read” interpret and understand information presented in pictorial or graphic images. Also Scalway (2010), define visual literacy as a group of competencies that allows humans interpret the visual action, objects, and/or symbols natural or constructed, that they encounter in the environment. If visual literacy is regarded as a language, then there is need to know how to communicate using this language, which includes being alert to visual messages and critically reading or viewing images as the language of the messages. Visual literacy, like language literacy, is culturally specific although there is universal symbols or visual images that are globally understood. A pictogram is a stylized figurative drawing that is used to convey information of an analogical or figurative nature directly to indicate an object or to express an idea. Pictogram can fulfill many functions; they are used to replace written indications and instructions expressing regulatory, mandatory, warning and prohibitory information, when that information must be proceed quickly (e.g. road traffic signs) when users speak different languages (i.e. nonnatives), have limited linguistic ability (e.g. people with low levels of literacy or little education) or have visual problems (e.g. older people) and especially when there is a legal obligation to inform and for the user to comply with information mainly for safety purposes. A pictogram needs to capture users’ attention to improve comprehension of warnings, and it also needs to increase their awareness of risk, generally by serving as an instant area memorandum of a risk (Otabu1998).

Communication campaigns are a corner stone of global HIV prevention efforts. Typically, these campaigns disseminate health messages that are design to increase public knowledge about HIV and challenges social norms that legitimize HIV risk behaviours. They utilize a variety of strategies and channels to disseminate these messages generally combining mass media, community level activities and individual level activities to reinforce messages under unified platform. In a model proposed by (Kinkaid et al 2013) messages operate at different levels to facilitate directives/ i.e.
community discussions and problem solving and public communication (e.g. debate regarding policy decisions). These modes of communication facilitate changes in skills and knowledge ideational factors and environmental changes that in turn influence health related behavioural change.

A World Bank (2011) report presents a gloomy picture of the epidemic. According to them, women in this part of the continent account for 61 percent of those living with HIV while young women are three times more likely to be HIV positive than young men.

Abia state is the only state in Nigeria that has witnessed persistent rise in HIV prevalence among African National Congress attendees since 1999, increasing from 3% in 1999 to 7.3% in 2010. The state general population prevalence increased from 1.6% in 2007 to 3.2% in 2012, compared to a declining national prevalence from 3.6% to 3.4% in 2007 and 2010 respectively. The state is currently experiencing a generalized epidemic with transmission occurring mostly in general population.

Onyeonomo et al., (2014) The Abia state government actions were motivated by increasing evidence that HIV epidemic would intensify existing bottle necks in agriculture, increase wide spread malnutrition, add problems of rural women especially female headed household arising from gender division of labour and lead rights/resources and deepen the debt crisis by reducing agricultural exports, illness and death from AIDS reduces agricultural productivity through the loss of labour, knowledge of productive adult and the asset to cope with the sickness. The majority of these women work in agriculture and they are prone to this epidemic, taking integrated view of their on-farm and off-farm activities and health is necessary to address food insecurity in rural communities of the state and beyond.

Concerning the states responsible to the creation of awareness on HIV epidemic, about from the state ministry of health approach other intervention were such as communication campaigns using mass media employed alongside adoption of relevant national documents/ guidelines for guidance on HIV interventions., The majority of rural women are farm entrepreneurs who make essential contributions to the economic and social development of their families and the country at large. The major concern currently is why some communities in Abia State are having the highest prevalence rate of HIV/AIDS epidemic despite efforts at awareness creation and education for behavioural change in lifestyles that increases the spread of HIV infection. Is it that the HIV prevalence education has not reached the target individuals, households and communities? Or it has reached them, but the kind of communication strategies and channels used have been inappropriate and ineffective in transmitting information in a manner that would lead to change in behaviour? The core of sustainable and efficacious action against HIV/AIDS is communication (Muturi, 2007).

This rural women according (Odoemelam and Nwachukwu 2011) have limited access to formal education and so find it difficult to competence and understand messages as intended by the sender. Improving their health will improve their economic empowerment. Therefore, it becomes imperative to improve their access to sexual and reproductive information and services on HIV transmission through pictorial messages.
This services will help in reducing the rural prevalence rate. All the educational campaigns according to (Odoemelam, 2011) have shown mixed effectiveness in changing HIV related knowledge, attitude and behaviours. Uninterestingly, little is known about how people understand and interpret the pictorial messages promoted through such campaigns. In the light of these gaps, the specific objectives were to;
1. ascertain the socio-economic characteristics of the women;
2. identify the sources of information on HIV/AIDS in the area;
3. identify the existing campaign strategies being used;
4. identify the respondents’ ability to recognize and interpret pictorial message;
5. ascertain the perception of the respondents on the use of conversational medium and pictorials and;
6. Identify the constraints faced in recognizing and interpreting the messages.

Methodology
The study area was Abia State. Abia State lies between longitude 4° 45’ and 6° 17” North and latitude 7° 8’ 10” 1’ East of Imo State. However, the East and Southeast, it is bounded by Cross river and Akwa Ibom State and by River State to the South. Abia State had a total population of 2,833,999 and out of which 1,434,193 were male. (National Population Commission (NPC) (2006). The male and female ratio is 49:51 with a population density of about 580 square km. Abia State is made up of 17 local government areas (LGA), each of which is administered by a council with a chairman. Multistage sampling method was used for the selection of the sample size, in the first stage, two out of the three senatorial zones were selected. The zones were Abia North made up of 5 local government areas namely; Ohafia, Bende, Arochukwu, Isiukwuato and Umuneochi while Abia south is made up of Obingwa, Osisoma, Ugwunagbo, Ukwu east, Ukwa west, Aba south and Aba north. In the second stage, one local government area was chosen from each senatorial zone namely (Obingwa for south and Ohafia for Abia North senatorial zone respectively. Selection was based on the fact that they have been exposed to HIV prevention intervention in 2008 (Odoemelam and Nwachukwu 2011) and also they share boundaries with Akwa Ibom which has a high prevalence rate of (7.2%) then (UNDP 2006). From each LGA, a community was chosen, from each community, three villages were randomly selected and from each village, 50 people ranging from 25-65 years of age were chosen bringing the total sample size to 180 respondents. Data were collected through the use of video materials. Advertisement so far produced by Abia State committee on HIV/AIDS awareness and knowledge creation were selected and duplicated using video (usually those on pictogram). Following this, the adverts were shown to the selected women (just to view but not for data collection). The video materials consist of 4 advertisements, which were randomly selected and shown to the women prior to the interview schedule. Also other adverts not in pictorial forms were shown to them and the documents contains the word HIV/AIDS kills as a catchy phrase. After the exposure to the intervention, the responses of the respondents were captured using structured questionnaire and Focus Group Discussion (FGD). To obtain qualitative data, each group comprises 8 – 10 participants in each community.
Data collected were analysed using simple descriptive statistics such as frequency distribution and means. T-test was used to determine the difference gained in knowledge using conventional and pictorial media.

**Results and Discussion**

**Socio Economic Characteristics of Respondents**

Table 1 shows that the mean age of the respondents were 42.2. The results on age is important because these women are in their active productive and reproductive age and needs the health campaign to avoid risky behaviour that will cause distortion on their business.

Results on marital status show that the majority (45%) of the women were married. The higher percentage of married respondents ordinarily should mean that they have permanent partners and less likely to be infected with HIV/AIDS. However, Arooye and Falkeye (2013), have shown that many men have multiple partners and do not use condom while having sex with their wives. This is because of the enormous power differentiation characterizing relation between genders and generations in most rural communities in Abia State. Most women’s lower status constrained their ability to negotiate with their husbands.

Furthermore, educational level of the respondents revealed differences in their educational attainment. Most (43%) of the respondents had no formal education which affects their reading ability, recognition and interpretation of pictorial messages for HIV/AIDS campaign (Table 1). Awoyemi, (2013) stated that education had a critical role to play in mitigating the effects of HIV/AIDS, that is providing knowledge that will inform self-protection inculcating skills that will lower infection risks and enhancing the capacity to help others to protect themselves. Finally, the results also reveal that 62% of the respondents were low Cosmo-politeness in nature. Individuals who spent most of their life time in rural communities have a low level of exposure to printed visuals such as pictorial illustrations and other visual symbols intended for communicating vital information on HIV/AIDS. Even though exposure to such visual media may in technical sense be considered involuntary.
Table 1: Distribution of respondents based on selected socio economic characteristics

| Variables          | Percentage | Mean |
|--------------------|------------|------|
| Age                |            |      |
| 25                 | 11.1       |      |
| 30                 | 17.2       |      |
| 35                 | 22.2       |      |
| 40                 | 20.0       |      |
| 45                 | 15.6       | 40.2 |
| 50                 | 13.9       |      |
| Marital status     |            |      |
| Married            | 45.0       |      |
| Separated          | 29.4       |      |
| Widow              | 25.6       |      |
| Total              | 100        |      |
| Educational level  |            |      |
| Non formal         | 43.0       |      |
| Primary            | 34.4       |      |
| Secondary          | 20.0       |      |
| Others             | 2.2        |      |
| Total              | 100        |      |
| Cosmopoliteness    |            |      |
| High               | 37.8       |      |
| Low                | 62.2       |      |

Source: field survey, 2016.

Distribution of respondents based on their ability to recognize pictures and interpret pictorial messages during the intervention

Table 2 indicates the respondents’ ability to recognize and interpret pictorials used for HIV/AIDS educational campaign. For first advert the majority (88%) of the respondents were able to recognize the pictures while half (56%) interpreted the pictures correctly. For the second advert 62% of the respondents expressed recognition of the pictures while 77% also narrowly interpreted the pictures correctly. For the third advert very few (18%) of the respondents recognized the pictures as an advert on HIV/AIDS while the majority (88%) of the respondents interpreted the pictures correctly. For the fourth advert, a majority (65%) of the respondent recognized the advent as ways of preventing
HIV/AIDS while for the interpretation most of the respondents (69%) were able to interpret the advert correctly. From the results, the respondents demonstrated varying level of recognition and interpretation of the key campaign concepts. Sometimes rural people have difficulty recognizing commercial campaign on HIV because the pictures are unfamiliar and contain complex concepts. And (Hiebert et al. 2008) cited that audience receive media messages in selective way, ignoring, reacting to and forgetting or reinterpreting according to their view points and also (Fourie 1998) in his findings stated during the process of interpretation, filtration takes place (the process through which audience eliminate the useless, the annoying and the unwanted. Kaufaman (2003) elaborates that advertisers are continuously seeking for innovative methods to promote health messages, using a catchy phrase to get the message across as a good way of getting people’s attention, but it might have a negative effect as many people might not understand the message because of a difficult word which has been used (for example zip-up) of all the campaign advert, the one in which condom was used had measurable success in the study area. The result suggested that pictures can be especially helpful to people with low literacy skills. Understanding health information, recalling health instructions and adhering to health instructions are the areas where the results have been promising specifically, the result suggests that pictures can help low literacy people understand relationships provided that they understand the elements being related.
Table 2: Distribution of respondents based on their ability to recognize pictures and interpret pictorial messages during the intervention

| Variables          | Percent |
|--------------------|---------|
| **Picture 1**      |         |
| Correct recognition| 87.8    |
| Non recognition    | 12.2    |
| Correct interpretation| 56.1   |
| Poor interpretation | 43.9    |
| **Picture 2**      |         |
| Correct recognition| 62.2    |
| Poor recognition   | 37.8    |
| Correct interpretation| 76.7   |
| Poor interpretation | 23.3    |
| **Picture 3**      |         |
| Correct recognition| 56.7    |
| Poor recognition   | 43.3    |
| Correct interpretation| 87.8   |
| Poor interpretation | 12.2    |
| **Picture 4**      |         |
| Correct recognition| 65.6    |
| Poor recognition   | 34.4    |
| Correct interpretation| 68.9   |
| Poor interpretation | 31.1    |

Source: Field survey, 2016

Percentage Distribution of Respondents’ Perception of Campaigns from Conventional Media and Pictorial Messages

Table 3 shows respondents’ perception of various streams of campaigns on HIV/AIDS. In terms of conventional media campaigns, a majority (40%) of the respondent felt that the campaign was efficient in effective use of textual matters, some of the respondents (36%) felt that the contents of the message was appropriate, while about (34%) of them claimed that the conventional media was quite successful in message dissemination.
However, the majority (87%) of the respondent felt that the campaign was not colourful and attractive, was not appropriate for audience appeal which aligns with the majority (87%) who maintained that colours employed were not very attractive. This probably would be the basis for the pictorial message approaches. About 87.2% of the respondents said that conventional media campaigns do not effectively use pictorial, as most of pictures/visuels used were in two-dimension, which thus gives a flat view of the pictures as compared to three dimensions’ quality of pictorial (multi-media) offerings. These positions buttress the conclusion that conventional media campaigns were not as successful in message dissemination as were the pictorial campaign varieties. This does not detract from whatever success the campaign had recorded to the employment of pictorial campaign-approaches.

For the pictorial messages approaches used during the campaign, the conclusions are that the pictorials were easily understood by the respondents, almost (96%) of the respondents stated that it captured audience appeal, all (100%) of the respondents claimed that it was appropriate for them and also some of them stated that pictorials messages were equally effective in message context, in usage of textual matters as this frees them to explore the visual and probably detract from the campaign objectives, in enhancing audience appeal and ultimately ensuring that the respondents easily understood the messages. Each of the campaign set to achieve certain objectives and the result is shown in Table3
Table 3: Percentage distribution of respondent’s perception of campaigns from conventional media and pictorial messages

| Characteristics                                                                 | Percent |
|--------------------------------------------------------------------------------|---------|
| Conventional medial campaigns on HIV/AIDS                                     | Yes     |
| Quite successful in message dissemination                                     | 34.4    |
| Very colourful and attractive                                                  | 12.8    |
| Appropriate in terms of message content                                       | 35.6    |
| Effective use of textual matters                                              | 40.0    |
| Appropriate for the audience                                                   | 17.2    |
| Adequate audience appeal                                                       | 80.0    |
| Easily understood by respondents                                              | 16.1    |
| Campaigns meet desired objects                                                 | 26.7    |
| Effective use of pictorial and audio on HIV/AIDS                              | 210     |
|                                                                                   | 87.2    |
| Pictorial Campaigns on HIV/AIDS                                                |         |
| Quite successful in message disseet                                            | 56.1    |
| Very colourful and attractive                                                  | 48.9    |
| Appropriate in terms of message content                                       | 48.9    |
| Effect of use of textual matters                                              | 50.6    |
| Effective use of pictures                                                     | 92.8    |
| Appropriate for the audience                                                   | 100     |
| Adequate audience appeal                                                       | 96.1    |
| Easily understood by respondents                                              | 98.9    |
| Campaigns met desired objectives                                               | 100     |

Source: Field survey, 2016

Difference Between the Knowledge Gained Using Conventional Media and the Use of Pictorials in Communicating HIV/AIDS Information.

Table 4 shows the significant difference between knowledge gain using conventional media and the knowledge gained using pictorial messages for HIV/AIDS campaigns. The result reveals that the mean level of knowledge using conventional media was (1.65) and that of pictorial messages (3.88). The difference in mean was (~2.22). The result also revealed that the t-calculated was (17.46) and is greater than the t-tabulated (3.79) indicating that there is a significant difference between t-calculated and t-tabulated. With this result, the researcher fails to accept the null-hypothesis which stated that there is no significant difference on knowledge gained using conventional media and the use of pictorial messages in communicating HIV/AIDS educational
The reason is that the language of the respondents reflected in the medium to ensure effective understanding of the messages. Similarly, literacy and educational campaign should be a key factor to consider before development of a medium.

**Table 4:** Difference between knowledge gained using conventional media and the use of pictorials in communicating HIV/AIDS messages.

|                  | Mean  | Std  | Std error | t-cal |
|------------------|-------|------|-----------|-------|
| Conventional     | 1.6546| 0.28348 | 0.07307  | 77.46 |
| media            |       |       |           |       |
| Pictorial        | 3.8764| 0.30438 | 0.08053  |       |
| messages         |       |       |           |       |
| Difference       | -2.2218| 0.29586 | 0.07806  |       |

*≤0.05. Source: Field data, 2016

**Conclusion and Recommendation**

The use of pictorials in communicating HIV/AIDS message to the women was more effective than the use of conventional media, indicating that the women will prefer more background illustrations and pictures to company messages to enhance recognition and interpretation. Stakeholder involved in designing HIV/AIDS educational campaign should look for ways to involve pictures in the health communication.

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