

# The Role of Library in the Use of Mobile Phone for People Living With HIV (PLHIV)

Farida Sani Stores<sup>1\*</sup>, Karimatu Isa Maisango<sup>2</sup>

<sup>1</sup>Federal College of Agricultural Produce Technology, Kano

<sup>2</sup>Yusuf Maitama Sule University, Kano

\*Corresponding author

**Abstract:** HIV is the worlds' most disturbing epidemic especially in developing country like Nigeria. Hence the world wants to reduce the spread of the epidemic by the year 2030. To be able to achieve the worlds' sustainable development goals (SDG) HIV prevention, treatment and care messages would be essential. The paper looks at the role of libraries in encouraging the use of mobile phone to communicate HIV information for the treatment and control of the disease through social media platforms. The PLHIV needs to be encouraged to use mobile phone as a means of disseminating HIV information. Use of mobile phone may be a reliable means of accessing HIV information as one can receive information from far and wide. More through the use of mobile phone technology new ideas are able to emerge to meet the health need of People Living with HIV. The paper concludes by highlighting the challenges of using mobile phone and some recommendations were given.

**Keywords:** Role of libraries, Mobile Phone, People Living with HIV

## I. INTRODUCTION

Human Immuno Deficiency Syndrome (HIV) has become the worlds' most shocking epidemic, especially in developing countries like Nigeria. Many people have died because of HIV related illnesses prior to its discovery in 1983. The virus infects the CD4 cells that produce anti-bodies of the immune system, hence weakens the immune system. As a result of this the body becomes unable to fight infection causing the person infected vulnerable to opportunistic infection such as tuberculosis. Hence HIV education and awareness have been implemented by various government and private body which enhanced the HIV prevalence rate. Hence more need to be done to improve access to information. Similarly People Living with HIV (PLHIV) support groups have been supporting the PLHIV for three decades (Thumbi 2017). They help the PLHIV to cope with the changes and challenges associated with the illness. The disease affects different group of people in the society ie young people, adults, children, men and women (Thumbi 2017).

Information on treatment, prevention, care and control need to be communicated to the PLHIV for effective result. The traditional face to face communication between patients, physicians and other stake holders appears to be ineffective in meeting the health needs of the growing population of PLHIV in the developing countries (Baguma and Mukalazi cited in Thumbi, 2017). This development made the mobile phone a

feasible way of accessing information on HIV. The HIV information may include testing, counseling, ARV side effects, reminder on medication, treatment etc.

The idea of using mobile phone for HIV prevention, care, control and treatment is very much possible. Mobile phones can be used to support HIV treatment by disseminating HIV information and links to medical services. The PLHIV information need vary from basic information on prevention to detailed information on the disease and its treatment.

## II. METHOD

The study adopted a systematic review of literature related PLHIV, mobile phone, information need and HIV information.

*The role of libraries:*

The librarian create a number of services aim at exposing the user to the information resources. Some of these services provide open access to user while others are placed on close access, all in an effort to make the resources available and utilized accordingly. These services include:-

- I. Reader services/Charging and discharging
- II. Inter library loan
- III. Reference services
- IV. E-library services
- V. Reserve services
- VI. Reprographic services
  - Photocopying
  - Downloading
  - Printing
  - binding
- VII. Services for special needs.
  - selective dissemination of information
  - current awareness services
  - library services for the disable
  - outreach services

Oladokun, & fidzani, (2000:52) noted that library should maintain a good arrangement and excellent services that will ensure an optimum library use. Similarly Opara, (2010:63) observes that "a library needs to satisfy its user in order to engender increase patronage, promote and improved public

perception of its community value, and convert its clientele from episodic to habitual users". This is only possible through the provision of effective and efficient library services, which the librarians should endeavor to, maintain and improve the services that will meet the demand of the user.

Special libraries are expected to provide special services to its users. Libraries provided in health centers are expected to cater for the information needs of the community. The services should include:-

- SDI-to the users concerning relevant information needs.
- Organizing forums for information sharing physically or online via social media platforms.
- Education programmes and awareness campaign using posters and fliers at strategic points.

*Mobile Phone:* The word mobile phone refers to a portable wireless device that allows users to make and receive calls, make text messages among other features. The present day mobile phones are featured with a lot of features such as web browsers, games, cameras, video players etc. The earliest mobile phones were only used for receiving and making calls, later Global System for Mobile Communication was originated. The device was incorporated with other features such as multimedia messages which allow users to send and receive images (Techopedia, 2018). Similarly a mobile phone typically operates on a cellular network which is composed of cells sites scattered throughout cities, country sites and mountainous region.

The purposes of using mobile phone are mainly conversation, entertainment and texting. As a communication device, mobile phone cover people from far and wide, it help improve life standard, allow access to information, services, education, and communication for an affordable price or free (Miakotko, 2015). The impact of mobile phones to PLHIV might be associated with empowering them to take control of their future, transform the way they interact with one another and enhance access to health care. It was also scientifically proven that mobile phone help to communicate HIV information and prove access to health care (Miakotko, 2015).

#### *Information Need:*

Information need generally refers to the kind of information a particular user is looking for at a specific point in time. Information need come up when an individual identifies a problem or information gap and develop a desire to solve the problem or bridge the information gap (Stores, 2017). Such information identified may lead to information seeking and the formulation of request for information (Igwerson and Jarvelin, 2005 cited in Stores, 2017). Information need was equally refers to a requirement for information (Stores, 2017). Information need therefore varies among individual, groups and organisations

Health information need vary from basic information on prevention to detailed information on the cause of the disease

and its treatment. The HIV community can play a significant role in the delivery of quality HIV information which may include dissemination of information on counseling, adherence, support and encouragement. Mobile health information is today being deployed around the world to address a variety of challenges from disease surveillance to health education. It has been useful particularly in low and middle income countries (Catalani, Philbrick and Israelski, 2013).

#### *Mobile Phone and HIV Information:*

Extensive literature search revealed that there is paucity of writings on the use of mobile phone as a health care intervention for HIV in developing countries; hence related articles were reviewed to get an insight into the subject matter. Articles written on Mobile Health Application (Mhealth) were reviewed because of its similarity with the topic under study. Mhealth is a mobile phone application used for HIV care, treatment, prevention and control. Early reports on Mobile health (Mhealth) revealed that mobile health technology may help improve quality of care delivered, reduced cost and address barriers related to HIV information. Mhealth was also reported to be a practice of medical and public health communication via mobile communication devices (Catalani, Philbrick and Israelski, 2013).

A systematic review of literature by Catalani, Philbrick and Israelski (2013) revealed that 62 articles related to use of Mhealth for health information dissemination were reviewed. The review revealed that only a few number of studies described the use of mobile technology for direct voice communication between patients and providers. Twenty four percent (24%) indicated delivery of HIV information on demand, 11% use text message to disseminate HIV education and health promotion messages. Similarly Crankshaw et al (2010) evaluated the use of mobile phones for clinic appointment reminders and adherence messages at an antiretroviral treatment (ART) in South Africa. Another study revealed that text messaging service was used to increase demand for voluntary counseling and testing in San-francisco. It was used to disseminate health information and referral service.

Similarly, studies revealed that reminding the PLHIV to take their drugs may increase adherence. It was also reported that PLHIV with higher level of health literacy adhere better to their medication (Kaplan, 2006 as cited in De Tolly and Alexander, 2009). A study by Cell life (2016) an NGO based in South Africa revealed that 120 PLHIV were sampled for the study, questionnaire and interview were used as instruments for data collection, and sequential explanatory design was also used. The respondents indicated that they have been receiving SMS as a reminder to take their drugs (ARV) twice daily. The SMS contained a reminder to take their drugs and other HIV related information such as ARV side effects, nutrition and tuberculosis etc. The study there

after recorded an increase in adherence to medication and side effects awareness.

Similarly, a study by Gilward (2005) revealed some challenges associated with the use of mobile phone for disseminating HIV messages. The study revealed that in a society where people share cellphone, HIV positive people may not be willing to use services that can potentially result in other people being aware of their status. Another study by Crankshaw et al (2010) revealed that women PLHIV tend to change and share phones more often than men. This may result to their status being revealed to other family members or close associates. In conclusion the review revealed that the use of mobile phone for prevention, care and treatment are in their early stage, hence revealed a promising trend towards practical and suitable outcome towards prevention, control, treatment and care of PLHIV.

#### Challenges:

Mobile phone provides us with the opportunity to communicate with people that are in a different geographical location. It is the present day means of communication which is more effective and efficient than other means. The technology has some challenges that every user might face while making use of. Lack of a good network, especially in a developing country like Nigeria Constant power supply might also be a challenge. In a country like Nigeria power supply might be a serious issue especially in small cities and rural areas.

Moreover, there are people who up till now live happily without mobile phone. They purposely refused to use it because they preferred to live a good old fashioned life style. There are still some celebrities like Elton John that don't use mobile phone because he was completely against the use of the technology and he is for the global shutdown of the internet. He believed that it is possible to live without technology. There are a lot people and celebrities that have this view especially in the US (Miakotko, 2015). This development will definitely cause a serious challenge to the use of mobile phone for HIV delivery hence need to be addressed in order to carry all people (PLHIV) along. Similarly Haberer, Kiwanuka and Bansberg (2010) articulated the following to be part of the challenges of using mobile phone for HIV information.

Some people (PLHIV) might not care to switch their own phone which might prevent the person from receiving call or a text message. Some people might have the fear of been disclosed, as such might not be able to participate in the program. In addition, some people share their mobile phones hence a HIV test result, incidence of domestic violence, reminders about appointment could be a complicated affair.

### III. CONCLUSION

In conclusion it has been established that libraries can play a role of encouraging national security. The provision of special services to PLHIV, through the use of mobile phones to

disseminate HIV information such as appointment reminder, reminder to take ART, information on nutrition etc. Both the physicians and the PLHIV use the technology to communicate information. The use of the technology for HIV information is still at infant stage in developing country like Nigeria. Therefore more is needed to be done to ensure adequate health security. Health security is also a catalyst of national unity and security for National development.

### IV. RECOMMENDATION

In respect to what has been discussed so far, the following recommendations were made

1. The government and all the stake holders should encourage the use of mobile phone for HIV prevention campaign.
2. The PLHIV themselves should be encourage to use mobile phone to share HIV information to their fellows.
3. The PLHIV support groups should integrate the use of mobile phone in carrying out their activities.
4. The government should try as much as possible to improve power supply in the country so as to improve the services.
5. The government and other stake holders should try and improve the efficiency of the network supply by communication companies.
6. There are yet people (PLHIV) that did not use mobile phones. The government should try and encourage such people to adopt the technology.
7. Sharing of mobile phones by PLHIV should be discouraged by stakeholders in order to engage people in the program.

### REFERENCES

- [1]. Catalani, Philbrick and Israelski (2013). mHealth for treatment and prevention: A systematic review of the literature. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24011011>, K,
- [2]. Alexander, H. (2009). Innovative use of cellphone technology for HIV/AIDS behavior change communications: 3 pilot projects. Retrieved from <http://www.w3.org/papers/kdetolly>.
- [3]. Gelmon, L. (2017). HIV/AIDS in the world: Epidemiology and issues. Retrieved from <http://medicine.usask.ca/alumni/Hig>.
- [4]. Haberer, J. E, Kiwanuka, J and Bansberg D. R. (2010) Challenges in using mobile phone for collection of antiretroviral therapy adherence data in a resource limited setting. *Journal of AIDS and Behavior* (14)6. Dio:10.1007/s1046-0109720-1
- [5]. Miakotko, L (2015). The Impact of smartphones and mobile devices on human health and life. Retrieved from <http://www.nyu.edu/woe/miakotkol>.
- [6]. Nicole, D. S, Arletha, W. L, Andrew, P, Gale, D. A, Elliot, R. S (2016). Enhancing the capacity of community organization to evaluate HIV/AIDS information outreach: A pilot experiment in expert consultation. Retrieved from <http://www.ncbi.nlm.nih.gov/articles>.
- [7]. Quist, S.C & Quarshie, H. S. (2016). The use of mobile phone among undergraduate students: a case in Ghana. *South America Journal of Academic Research*. Retrieved from <http://www.researchgate.net/publication/303723828>.
- [8]. Stores, F. S. (2017) Information Need and Seeking Behaviour of Diploma Students of Federal College of Agricultural Produce Technology, Kano. *An International Multi-disciplinary Journal Ethiopia*, 11 (2), 223-236

[9]. Thumbi, C. M (2017). A mobile application for HIV education and stigma level measure: a case of Nairobi. (Online masters' thesis), University of Strathmore.

[10]. Techopobia: mobile phone (2018). Retrieved from <http://en.wikipedia.org/wiki/mobile>.