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Use of Social Media for Information Sharing in the Management of People Living with HIV in Nigeria

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Abstract

The study investigates the use of Social Media for information sharing in the management of people living with HIV in Nigeria. The specific objectives of the study were to find out the information needs of the PLHIV, the sources of their information, the types of information shared and the challenges. The study had four research questions. A Cross-sectional research design was employed. Questionnaires and interview were the instruments used to collect the data. Four hundred (400) respondents were selected as the sample, The Director General; of the National Agency for the Control of AIDS was also interviewed. The quantitative data was analyzed using descriptive and inferential statistics; frequency, percentages, and chi-square. The qualitative data was interpreted using narrative analysis. The information needs of the People Living with HIV were health-related. Their sources of information were symposiums, physicians, HIV support groups, friends and colleagues, radio, television, HIV journals, magazines and ARV trial centres. They used Facebook, WhatsApp, YouTube and Twitter for information sharing. They also used SM to share information on health development, healthy lifestyle, preventing infecting other People and preventing sexual partners from being infected, among others. The Challenges hindering the use of Social Media were lack of physical interaction, poor network and invasion of privacy, low IT literacy, unreliable information, fear of sharing fake news, poor quality of video and audio transmission, etc. The National Agency for the Control of AIDS used Facebook and Twitter to share information with people living with HIV. Insecurity and lack of funds were the major challenges faced by the National Agency for the Control of AIDS in information sharing. Hypotheses tests showed a significant relationship between the information sources and the types of information shared, there was also a significant relationship between the information needs and the information sources. On the other hand, no significant relationship was revealed between the information needs and the types of information shared. It was recommended to the government and all HIV stakeholders to come up with a policy that will integrate the use of SM in the management of People Living with HIV, The National Agency for the Control of AIDS should also integrate the use of WhatsApp and Youtube for effective information sharing. The government at all levels should specifically create a library, fully equipped with both printed and electronic information resources to encourage the PLHIV to intensify the use of printed information sources.

Keywords: Social Media, Information Sharing, Management, People with Chronic Medical Conditions, People Living with HIV, National Agency for the Control of AIDS.

Operational Definition of Key Terms:

The following terms are defined in line with how they were used in this study.

- **Human Immunodeficiency Virus (HIV):** is a disease that cripples the human immune system and makes the person infected vulnerable to opportunistic infections.
- **People living with HIV (PLHIV):** persons (15 years and above) living with HIV.
- **Management:** refers to the treatment, care, control, prevention and self-management of HIV.
- **Network of People Living with HIV/AIDS in Nigeria (NEPWHAN):** is a network of People infected with HIV in Nigeria, who come together under the same umbrella to have a voice that can be heard.
- **Information sharing:** refers to the act of communicating, sending and receiving
- **SM:** are online social networking sites used for sharing and exchange of information.
Examples include: Facebook, Twitter, etc
- **Sources of Information:** refers to individuals, organizations, associations, online forums or anything that provides information to PLHIV.
- **Chronic medical conditions:** illnesses that require ongoing medical attention.

1.1 Introduction:

The emergence of Information and Communication Technology (ICT) has brought about innovative changes in all disciplines and all aspects of human endeavour, and Information Sharing is not an exception. Indeed, Information and Communication Technology (ICT) including the Internet have culminated in significant changes in how information is shared, and this has also engendered added advantages to the traditional means of communication. The exchange of thoughts, messages, facts, and information presently appears to be communicated via the Internet and Social Media. Social Media (SM) are primarily Internet-based tools for sharing information which serve as a contemporary way for how People discover, read, and share information and its contents.

SM platforms are cost-effective, practical and easily accessible as methods of ensuring participation, awareness, and encouragement, thus they allow people to get connected to the online world to form a relationship for personal or business purposes (Arvin, 2021). Similarly, information is created as a result of people's interactions and activities. This statement was supported by Hepler, Moffitt and Chapel, (2022) and Webster (2021) which affirmed that the present society is an environment where information is created as a result of human day-to-day interactions and activities, information is knowledge obtained from investigation, study or instruction. Information is, therefore, something that is achieved or created.

Information is essential for managing and improving human life including health development. Information sharing is vital to People with chronic medical conditions for effective management of the disease.

Social Media (SM) has become a major tool for information sharing. A lot of people now seem to have transferred from conventional media use to the use of SM because of its perceived usefulness and ease of use. It has also been proven as an effective tool in health promotion (Arvin, 2021).

People living with chronic medical conditions like HIV need to be provided with vital information that will help them cope with the psychological trauma resulting from the disease. Chronic diseases are associated with stress and anxiety such as physical discomfort, pain as well as emotional and psychological stress. Many people with chronic medical conditions such as cardiovascular disease, cancer, stroke, lung disease and HIV appear to consider SM a modern tool for information sharing.

With regards to HIV, the epidemic in Nigeria is complex and varies widely by region, with some states having higher epidemic figures than others. This is usually caused by high-risk behaviour and multiple sexual partners. It affects young People between the ages of 15 to 49, with young females and people practising low-risk sex as the driving force. HIV has now become a national security problem because many productive age groups have been destroyed by the virus (Awofala and Ogundele, 2018).

About this, information serves as an essential resource for the PLHIV, knowing about the dynamics of how these People share information will help in providing an enabling environment for them to have the most desired information. SM can help significantly in information sharing

among the People living with HIV (PLHIV) in Nigeria, as it is a platform for network relationships among People, in which they generate, share, and augment information and ideas in virtual communities and networks. Understanding how the PLHIV in Nigeria use SM will establish evidence about their information needs, the sources of information they use, the types of information they share, and the challenges associated with the use of the SM.

It was against this background that the study examined the use of SM for information sharing in the management of the PLHIV in Nigeria. The reason behind the subject matter was to encourage the PLHIV to use SM for information sharing to maintain a competitive verge and cope with the rapidly changing environment they find themselves. It was also anticipated that the National Agency for the Control of AIDS (NACA) as an agency responsible for monitoring and evaluation of all HIV activities in the country may play a role in providing adequate information on how SM is used for information sharing in the management of the PLHIV in Nigeria.

1.2 Statement of the Problem

Nigeria has recorded about 5 million HIV-infected individuals since the beginning of the endemic; it also represents the second highest in Africa (NACA, 2017). HIV is a chronic disease, discovered during the last three decades, (1980s). It is an infectious disease experienced by the whole world. The disease is destructive and deadly, instigated by a virus which infects body fluids called Human Immunodeficiency Virus (HIV). The virus causes the clinical syndrome Acquired Immunodeficiency Syndrome (AIDS). It is also divided into two major types: Human Immunodeficiency Virus One (HIV I) and Human Immunodeficiency Virus Two (HIV II) (WHO, 2021). The virus destroys the body's immune system, thus making it

impossible to fight infection that may affect the body and as such, it is viewed as a terminal illness.

The disease mostly affects young people aged 15 – 45 thus becoming a worldwide crisis affecting the global political, economic, social, and security development as well as life expectancy, and as such the epidemic needs to be prevented and controlled for societal development. Additionally, research has shown that information sharing among People with chronic medical conditions, including People living with HIV (PLHIV) has the potential of improving their health condition through self-care and effective management of the disease. (Arvin, 2021). Social Media (SM) as a new technology appears to increase the possibility and effectiveness of how people send and receive information. The PLHIV in the developed world has since adopted the use of SM for information sharing (Arvin, 2021). Information sharing may include how the PLHIV can effectively self-manage their condition, and how to help each other psychologically, mentally, economically and socially to reduce the effect of the disease. There is therefore the need to investigate the SM use, the information needs of the PLHIV, the sources of their information, and the types of information shared as well as the challenges associated with the SM use. Discovering how the PLHIV use SM for information sharing, in the management of the disease, may help all HIV stakeholders to come up with policies on HIV prevention and management.

1.3 Research Questions:

1. What are the information needs of the People living with HIV (PLHIV) in Nigeria?
2. What are the sources of information used to satisfy the information needs of the PLHIV in Nigeria?
3. What types of information is shared using Social Media for the management of the PLHIV in Nigeria?

4. What are the challenges associated with the use of SM for information sharing in the management of the PLHIV in Nigeria?

1.4 Research Hypotheses

1. There is no significant relationship between the information needs of PLHIV in Nigeria and the information sources.
2. H_0 There is no significant relationship between the information sources of PLHIV in Nigeria and the types of information shared
3. H_0 There is no significant relationship between the information needs of the PLHIV in Nigeria and the types of information shared.

2.0 Review of Related Literature

2.1 Information Needs of People with chronic medical conditions

Human beings desire information because it serves as a mechanism for managing and improving their life. Such improvement is required in the social, political, economic, industrial, health and technological well-being of humanity. The word "information" was defined in Webster's Dictionary as "*knowledge given or acquired in any given manner.*" Going by this definition information can be explained as knowledge transferred from one person to another irrespective of the form, medium and means in which the information was transmitted or disseminated. Thus the importance of information is to increase the knowledge of users and reduce the level of their uncertainty.

The importance of information to People with chronic medical conditions made it necessary for them to share information that will help them cope with the disease and prevent further health

deterioration and opportunistic infections (Bazrafshani, Panahi, Sharifi and Khoei, 2022).

A study by Park, Young and You, (2020) revealed that People with chronic diseases such as high blood pressure, high cholesterol, diabetes, cardiovascular disease and obesity, convey specific queries and information needs to stakeholders. They make enquiries and they get answers to their questions. The PLHIV mostly make enquiries on the availability of ART and self-management practice. Another study by Matza et al, Paulus and Kriston (2020) revealed that the PLHIV need information on oral medication, ART adherence and self-management. This showed the importance of ARV to PLHIV, it also means that People with chronic medical conditions, particularly, the PLHIV require different types of information that help them cope and self-manage the disease, however with current rapid development in research and technology, the information needs of the PLHIV may change within the shortest time.

2.2 Information Sources used by People with chronic medical conditions

An information source is seen as a foundation of information for People; this definition means that an information source is anything that informs a person about something or knowledge about it. Information sources may be observations, People, speeches, documents, pictures, organizations, and web websites (LibGuide, 2021).

Martine, Vermeulen and De Witte (2016) revealed that People with chronic medical conditions used nurses, physicians and cardiologists as their sources of information. On the contrary, the Centre for Disease Control (2019) revealed that 51% of adults with chronic medical conditions in the US used the Internet as a source of information, 93% used health professionals, 60% used friends and family members, 56% used pamphlets and reference materials and 31% used insurance providers.

People with chronic medical conditions have been using different sources of health information for a very long time. This statement was supported by Liboro, Shaper and Ross (2021) who revealed, that People with HIV used friends and family members, peers and mental health providers as their sources of information. They require the services of mental health providers because their condition is associated with fear, anxiety and depression which directly or indirectly affect their mental health.

In essence, People with chronic medical conditions share some similarities that qualify them to be considered as People with the same condition and as a result of that their information sources may likely be the same or similar. Stanarevic, Faletar, and Badurina (2016) revealed that the most popular sources of information used by People with chronic medical conditions were health professionals, personal networks, patient organizations, online searches, online social networks, family members, friends and patients with the same diagnosis, online health information sites, SM, Medline, Centre for Disease Control and Medicare.

2.3Types of Information Shared Using SM in the Management of the PLHIV

The emergence of the Internet brought significant changes in how messages, signals and thoughts could be communicated and shared. Information is now transmitted via a collaborative communication vehicle. The Internet offers 24-hour access; it requires no transportation and provides a level of privacy that may be especially pleasing to People with HIV and other stigmatizing health issues, such as mental health disorders and sexually transmitted diseases (Liboro, Shaper, and Rose, 2021).

Martinez (2022) revealed that People with chronic medical conditions shared information on their personal experience with the disease, health literacy and awareness, and learning behaviour

from shared experience which in turn promotes self-management of chronic conditions as well as psychological support. Furthermore, regarding the treatment, care and self-management of HIV, Bazrafshani, Panali and Sharif (2022) revealed that PLHIV were allowed to use the online form to discuss issues of common concern such as oral medication, adherence and self-management, thus use of SM for information sharing with PLHIV greatly helped to effectively manage the illness and subsequently live longer than expected (Matza et al, Terana, Kristen,2020). People with chronic medical conditions share experiences and offer support to their peers through Facebook, Instagram, Reddit and YouTube (Isika, Mendozaand, Bosuo, 2016). Naturally People with the same or similar medical conditions, interests and aspirations tend to form a network and eventually become connected, sharing experiences, stories and ideas.

2.4 Challenges Associated with the Use of SM for Information Sharing

SM has witnessed a dramatic growth in health care in recent years. It is used to deliver public health information by patients and physicians who provide opportunities for collaboration and connectivity among users. SM users faced many challenges in the course of using the SM. The challenges may be connected with sharing of irrelevant posts, disappointing posts, and poor engagement of users among others (Bazrafshani, Panahi, Sharifi and Khoei, 2022).

These challenges were usually universal because there was the likelihood that all SM users faced the same or similar challenges. Torabi and Beznosov (2016) submitted that People with chronic medical conditions in the USA faced challenges with SM. The challenges were privacy invasion, information misuse and unintended information disclosure. On the contrary, Munajat (2017) argued that the challenges of using SM were a lack of trust and familiarity, unfiltered information as well as fear of providing information. This implied that some SM users

considered lack of familiarity as a challenge. Additionally, unfamiliarity may make them uncomfortable to share information and consider the information shared as unfiltered.

The anonymous nature of SM users allowed them to misbehave and post whatever they feel like and this may be dangerous and challenging to the whole online community. In another perspective, People living with chronic medical conditions were revealed to have unique challenges with SM use. This was supported by Angelis (2018), People with chronic medical conditions faced some challenges associated with SM use such as; lack of computer access within a workplace, lack of computer competency and paucity of evidence. Conclusively, there were many challenges associated with SM use, as some were universal to all SM users and some were peculiar to specific groups.

3.0 Materials and Methods:

A cross-sectional survey research design was used. It is a research design that allows the researcher to use both quantitative and qualitative methods for a proper understanding of the research problem. Structured questionnaires and interview were used to collect data from the respondents. The population of the study was 3,299,300. Multi-stage sampling was used. The Yemeni formula was also used to come up with a sample of 400 respondents. The National Agency for the Control of AIDS was also interviewed. Individual respondents were indiscriminately selected and administered the questionnaire. Descriptive statistics such as frequencies, percentages, means and standard deviations were used to analyze the data.

4.0 Findings of the Study

4.1 Response Rate

Four hundred (400) copies of questionnaires were distributed to the respondents and all were returned. Fifteen (15) Out of the four hundred (400) were found not usable. This amounts to a ninety-six percent (96%) response. According to Osuala (2005) and Babbie (2010), a Ninety-six percent (96%) response is good for analysis.

4.2 Information Needs of PLHIV

To find out the information needs of the PLHIV in the area under study, the researcher presented different options for the respondents to tick as applicable. Table 4.1 provides the details.

Table 4.1 Information Needs of PLHIV

S/N	Information Needs	Frequency	Percentage
	Information on how to control the spread of the disease.	359	93
	Information on where to get ARV	353	92
	Information on how to live a healthy lifestyle	349	91
	Information on how to make proper use of a condom	346	90
	Information on the experience of other PLHIV with the disease	341	89
	Information on how to prevent myself from secondary infection	339	88
	Information on how to prevent infecting others	338	88
	Information on support and encouragement	332	87
	Information on how to get free medical care on opportunistic infection.	331	86
	Information on how to establish interaction and collaboration with other PLHIV.	326	85
	Information on how to prevent psychological trauma following the diagnosis of the disease	326	85
	Information on how to make sexual interaction with a spouse.	325	85
	Information on education	323	84
	Information on where to get a suitable job with my health status.	319	83
	Information on NGOs	315	82
	Information on where to get financial	314	82

assistance.		
Information on how to disclose HIV status to friends and colleagues	314	82
Information on the human right act	313	82
Information on technical and vocational training	310	81
Information on family planning	310	81
Information on HIV international organization	308	80
	300	78
Information on how to seek redress on discrimination and other infringement		
Information on job opportunity	292	76
Information on current affairs	282	73
Information on sports	277	72
Information on government and politics	274	71

Table 413 shows the information needs of the PLHIV in Nigeria. The majority of the respondents indicated that they need almost all the information presented on the table. Information on how to control the spread of the disease got the highest response with 359(93%). Similarly, where to get anti-retroviral treatment had the second highest response, with 353(92%) respondents. This was closely followed by information on how to live a healthy life with 349(91%) respondents. How to make proper use of condoms had 346(90%) respondents. Whereas 341(89%) indicated that they need information on the experience of other PLHIV with the disease.

PLHIV in the area under study need information on HIV more than any other information as they indicated their interest in controlling the spread of the infection. The information needs with the least responses were information on government and politics with 274(72%), followed by sports and current affairs with 277(71%) and 282(73%) respectively.

The development might be related to the fact that PLHIV are carriers of a chronic disease hence their major information needs are health-related. The table also showed that the PLHIV required

all the types of information presented in the table; this therefore showed that their information needs are diverse and heterogeneous.

4.3 Sources of Information Used by PLHIV

The respondents were asked to indicate their sources of information. Table 4.2 provides a summary of the responses.

Table 4.2 Sources of PLHIV Information

S/N	Sources of Information	Frequency	Percentage
	Physician	299	78
	Television	278	72
	HIV support groups	278	72
	Radio	259	67
	Friends and colleagues	241	63
	NEPWHAN	227	59
	HIV positive educators	216	56
	NACA/SACA	205	53
	HIV Journals	150	39
	Magazines	136	36
	ARV trial centres	134	35
	Newsletters	127	33

The table revealed that the majority of the respondents used physicians as their source of information with 299(78%) responses. This was closely followed by HIV support groups and television with 278(72%) respondents. Radio was selected by 259(67%). Friends and colleagues were selected by 241(63%) respondents and NEPWHAN was selected by 227 (59%) respondents. On the other hand, the table showed that there was very low patronage of printed sources as only 150(39%), 136(36%) and 127(33%) respondents indicated that they used HIV journals, magazines and newsletters respectively.

This might be attributed to the fact that the HIV stakeholders do not pay much attention to making the printed sources easily accessible to the PLHIV; instead, they put all their efforts into sharing HIV information through radio, television and support groups, NEPWHAN and NACA awareness campaigns. The cost of the printed sources may also be a challenge. Similarly, even the library that is located in the NACA office is an electronic library with very few printed information materials. More so, the PLHIV in this technology era prefer to search for information via electronic means and hence physical libraries and printed sources are left with a very low patronage. Additionally, most PLHIV also live in rural areas where there are no libraries, and in places where the libraries are available, most of them are not up to the standard.

4.4 Types of Information Shared Using Social Media in the Management of PLHIV

SM is very popular in our present society; it serves as a new and widely used information-sharing channel. The preliminary study revealed that ninety-one (91%) of the PLHIV in Nigeria used SM for information sharing. As a result of this development, those that used SM were screened and selected as respondents for this study thus; all the three hundred and eighty-five (385) respondents for this study were SM users.

They used Facebook, WhatsApp, YouTube, and Twitter for information sharing.

Generally, PLHIV requires specific types of information to manage their health condition. The respondents were given options to tick as applicable. Table 4.6 presents the responses.

Table 4.6 Types of Information Shared

Types of Information	Frequency	Percentage
Information on health development	374	97
Information on healthy lifestyle	374	97
Information on preventing infecting other People	374	97
Information on preventing a sexual partner from being infected	374	97
Information on HIV awareness and education	366	95
Information on how to take ARV drugs	362	94
Information on how to be physically healthy	361	94
Information on ARV side effects	358	93
Information on current affairs	356	92
Information on how to protect infecting unborn child	355	92
Information on a good balanced diet	352	91
Information on how to get HIV positive spouse	351	91
Information on technical and vocational training	351	91
Information on how to cope with psychological trauma following the diagnosis of the disease	349	90
Information on the human right act	347	90
Information on the activities of non-governmental organizations	344	89
Information on where to get free medical care on opportunistic infection	338	88
Information on proper condom use	336	87
Information on how to seek redress for discrimination and other infringement	334	89
Information on how to have sexual interaction with a spouse	328	85
Information on national politics and Government	326	84
Information on how to get a suitable job	313	81
Information on how to communicate with international HIV organizations for empowerment and support	312	81

The table showed that the majority of the respondents 374(97%) used SM to share information on health development, healthy lifestyle, preventing infecting other People and preventing sexual partners from being infected, whereas 366(95) shared information on HIV awareness and education. The table also showed that the information with the least response was information on how to get a suitable job and information on how to communicate with international HIV organizations for support and empowerment with 313 and 312(81%) respectively.

PLHIV in the study area used SM to share various types of information, but the most predominant types of information shared among them were information on the prevention and management of HIV. This was a good development because it was an indication that the PLHIV now have an interest in curtailing the spread of the disease. A previous study has shown that at that time, the PLHIV were not interested in curtailing the spread of the disease (Stores, 2010). This development may be due to sensitization programs on HIV prevention by the government and other stakeholders. Additionally, information on how to seek redress for discrimination and other infringement also had a low response; this might be related to the fact that stigma and discrimination have significantly reduced in our society due to various awareness and sensitization programs.

4.5 Challenges Associated with SM Used by PLHIV

SM is associated with some challenges. The respondents were asked to identify the challenges. Various options were presented to them, to tick as applicable. Table 4.7 presents the details of the findings.

Table 4.7 Challenges Associated with SM Used

Challenges	Frequency	Percentage
Lack of physical interaction	235	61
Length of time spent on SM	202	52
Poor network	186	48
Invasion of privacy	176	45
Lack of credibility and quality of the information	158	41
Low IT literacy	165	42
Unreliable information	157	40
High cost of Internet access	164	43
In the availability of mobile devices	158	41
Fear of sharing fake information	171	44
Lack of good understanding between SM users	153	40
Poor quality of video and audio transmission	153	40

The table showed that lack of physical interaction had the highest response with 235(61%) respondents. This was closely followed by the length of time spent on SM and poor networks with 202(52%) and 186(48%) respectively. Similarly, invasion of privacy was selected by 176(45%) respondents. The options with the least responses were poor quality of video and audio transmission, lack of good understanding between SM users and fear of providing fake information with 153(40%), 153(40%) and 171(44%) respectively. PLHIV in the area under study experienced different kinds of challenges regarding SM use.

Lack of physical interaction has always been a challenge to SM users. SM proved to be a very good and effective channel of information sharing, however, when it comes to human nature, there is a need to socialize and connect with other people physically. As asserted by Lee et al (2011), using the Internet (SM) for interpersonal communication hurts People' quality of life, whereas talking to a friend or family member face to face for at least ten minutes has a positive impact on People's quality of life. As such SM shouldn't be the only means of information sharing by the PLHIV. Strong support networks or community bonds enhance both emotional and physical health. To enhance the well-being of PLHIV, there is a need for a balance between their virtual and real world, thus SM should be used as supplemental to the PLHIV social life.

4.9 Hypotheses Testing

Chi-square was used to test the following hypotheses.

4.9.1 Hypothesis 1

There is no significant relationship between the information needs of the PLHIV in Nigeria and the information sources used. Table 4.9 presents the findings.

Table 4.8 Information Needs and Information Sources of PLHIV

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	410.235 ^a	532	.1.000
Likelihood Ratio	340.341	532	1.000
Linear-by-Linear Association	6.855	1	.009
N of Valid Cases	385		

The table showed that the Chi-square value was 410.235, the df =532 and the calculated p-value was 1.000 which was greater than the significant value $p > 0.05$. The findings therefore revealed that the null hypothesis is rejected and the alternative hypothesis is accepted.

What this means is that as the information needs of the PLHIV increases, the use of the information sources also increases, this indicates a direct relationship between the two variables. This therefore implied that there was a positive and significant relationship between the information needs of the PLHIV and the information sources; a significant change related to the information needs of the PLHIV will result in a significant change in the sources of information. Thus there was a significant relationship between the information needs of the PLHIV in Nigeria and the information sources.

4.9.2 Hypothesis 2

There is no significant relationship between the information sources of the PLHIV in Nigeria and the types of information shared. Table 4.10 reveals the findings.

Table 4.10 Information Sources and Types of Information Shared

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	461.408 ^a	532	.988
Likelihood Ratio	349.083	532	1.000
Linear-by-Linear Association	12.023	1	.001
N of Valid Cases	385		

The table showed that the Chi-square value was 461.408, the $df = 532$ and the calculated P value was .988 which was greater than the significant value $p > 0.05$. The finding therefore revealed that the null hypothesis is rejected while the alternative hypothesis is accepted.

Meaning means that if the use of information sources increases, the types of information shared will also increase. It can also be inferred that the more the PLHIV use information sources the more they share the information. Thus there is a strong, positive and significant relationship between the two variables. Hence the alternative hypothesis number (7) stands true because sufficient statistical evidence indicated that there was a significant relationship between the sources of information used by the PLHIV and the types of information shared.

4.9.5 Hypothesis 5

There is no significant relationship between the information needs of the PLHIV in Nigeria and the types of information shared. Table 4.12 reveals the details.

Table 4.12 Information Needs and Types of Information Shared

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3629.015 ^a	1406	.000
Likelihood Ratio	750.804	1406	1.000
Linear-by-Linear Association	144.572	1	.000
N of Valid Cases	385		

The table showed that the Chi-square value was 3629.015, the df = 1406 and the calculated p-value was .000 which was less than the significant p-value $p < 0.05$. The finding therefore showed that the null hypothesis is accepted while the alternative hypothesis is rejected.

This value means that there was no significant relationship between the information needs of the PLHIV and the types of information shared. If the information needs of the PLHIV increase or change, the types of information shared may not change or increase. At this point, it is important to note that the study does not reject the relationship between the two variables, it literary means that the relationship between these variables was insignificant. This showed that there was a positive but insignificant relationship between the information needs of PLHIV in Nigeria and the types of information shared.

4.3 Qualitative Data Presentation and Analysis

This section presents and analyzes the Qualitative Data of the study. The interview was used to find out the types of information NACA shared in the management of the PLHIV in Nigeria, as well as the challenges. Descriptive Analysis was used to analyze the data.

4.3.1 Types of Information NACA Shared in the Management of PLHIV

NACA DG was asked to state the types of information they share in the management of the PLHIV, he then stated that:

NACA help the PLHIV to get to the treatment ladder; it helped them access treatment programs. The types of information NACA shared in the management of the PLHIV were basically:

How to take their drugs, the side effects, how they may be able to access treatment, issues on depression, how to access support and counselling services, psychiatric services and prevention for those that do not have the disease.

The Agency also provide them with information on how to protect their loved ones from being infected, especially when the husband is positive and the wife is negative and vice versa. NACA also educate them on how to stay healthy, eat healthy food and exercise. NACA also educate the PLHIV on how to live a healthy life etc.

In addition, the population of the PLHIV in Nigeria is heterogeneous; some People are elites and there are those who are illiterate; as such, their information needs differ:

For the elites who used SM, the type of information we communicated to them was basically on how, when and where they can get treatment, drug adherence, stigmatization and where to seek redress on stigma and discrimination, drug reaction and other related issues.

We used SMs like Facebook and Twitter. We used them to provide information on general health issues. We answer messages and enquiries by individual PLHIV. Any confidential issue we address it through SM. The NACA SM address is "twitternacanigeria." and "facebooknacanigeria"

The interview revealed the types of SM and the information NACA shared in the management of the PLHIV. The finding was quite similar to the quantitative in terms of medication, support,

counselling, prevention, etc. The responses eventually showed that NACA has been conducting its mandate; managing the activities of the PLHIV in terms of prevention, treatment, care and support, thus the types of information the PLHIV shared (variable number 6) and the one shared by NACA converged. This convergence showed a clear and significant relationship between the aims and objectives of the PLHIV support groups and NACA which was solely on the management of the PLHIV which involves; treatment, care, control and prevention of HIV.

4.3.3 Challenges Associated with SM Used by NACA

Similarly, in the qualitative study, NACA DG was asked to state the possible challenges NACA faced with the use of SM for information sharing. He then stated that:

Our major challenge is the lack of commitment of the government to give more money to HIV prevention and treatment campaigns, especially at the state level. Some states have not even budgeted ten naira for the past ten years for HIV prevention and control in their state.

Information sharing at the grassroots level is not as effective as we want it because of communication barriers, cultural barriers, education and security; like in Borno state where the insurgency is high, it is difficult to get people to go and work there.

Access to computers and electricity, especially in rural areas is also a challenge. Most People can't afford generators and a large number of the PLHIV live in rural areas.

Lack of awareness of the NACA helpline, web address and SM profile is also a major challenge. Many People don't know our helpline. Lack of awareness of the NACA SM profile address is also a challenge.

Information sharing by NACA in the management of the PLHIV also faced some challenges; lack of commitment of the government especially at the state level, communication and cultural

barrier, education, security, lack of electricity, computer literacy, Internet service and lack of awareness of NACA helplines were some of the challenges.

This finding was in line with the quantitative data because the major challenge the PLHIV and NACA faced with information sharing particularly with SM was the lack of Internet access in some rural areas where most PLHIV resides. Insecurity in some parts of the country especially the northeast was also a major challenge to the agency. The agency and the PLHIV faced similar challenges because they have a similar mission.

4.4 Discussion of Findings

The information needs of the PLHIV were first explored; It was proved that they were health-related; even though the PLHIV needed other types of information such as social, economic and political. The finding was supported by Bazrafshani, Panali Sharifi and Khoei (2022) who revealed that the People living with HIV need information on self-care and management, diagnostic condition, prevention and treatment of the disease.

The most popular sources of information used by the PLHIV were physicians, support groups, NEPWHAN, as well as friends and colleagues. This development was related to the fact that HIV is a disease that is associated with depression, anxiety and worry. Interaction with peers may also relieve psychological stress. Physicians may also be used because of their ability to provide health education. The finding was supported by Liboro, Shaper and Ross (2021) who revealed that People with HIV used friends and family members, peers and mental health providers as their sources of information.

The use of SM for information sharing exposed the PLHIV to different types of SM. The PLHIV used SMs such as Facebook, Twitter, WhatsApp and YouTube. Managing the PLHIV required

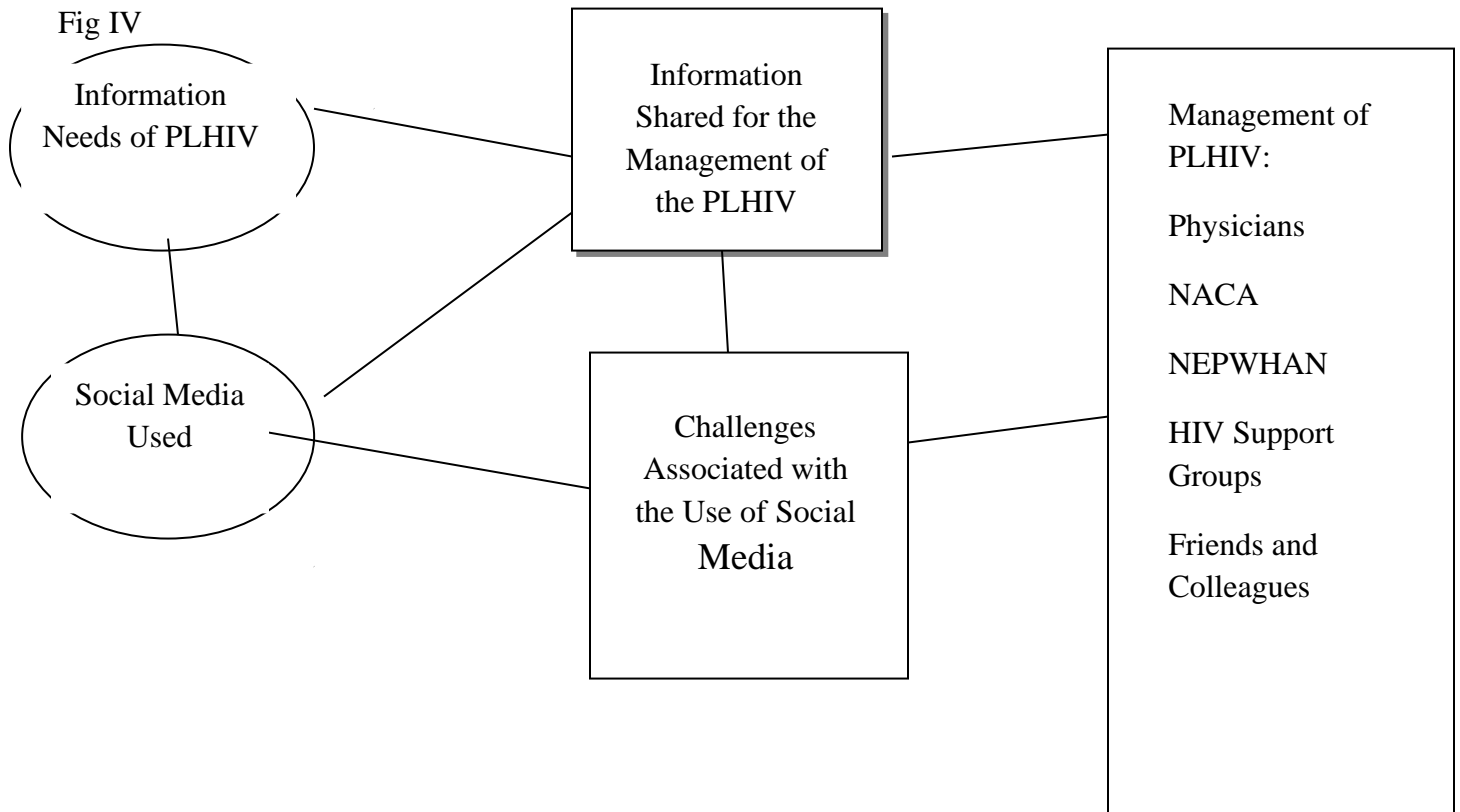
different types of information; the information shared was generally related to their health condition, even though they shared other types of information such as political, social and economic. NACA plays a very crucial role in managing the PLHIV through information sharing. It also supports the PLHIV to get financial assistance within and outside the country through its national associations and support groups. The finding conforms to Bazrafshani, Panahi, Sharifi and Khoei (2022), Huygens, Vermeulen and De Witte (2016), Ayaoku and Nwosu (2017) which revealed that People with chronic medical conditions shared medication information, personal experience with the disease, staying connected with peers and care providers, participation on sports, diet and nutrition, psychological trauma, exercise and weight control, self-care and treatment.

Based on the findings of the study it can be inferred that there were lots of setbacks for the PLHIV management in Nigeria, in areas where insecurity was very high like Borno state. NACA found it difficult to effectively communicate with the PLHIV that resides in that area. There is therefore a need by the government to tackle insecurity challenges in the country for effective management of the PLHIV. Lack of physical interaction, invasion of privacy, poor network, high cost of Internet access and low IT literacy were some of the challenges associated with SM use. This finding was similar to that of Bazrafshani, Panashi and Sharifi (2022), Torabi and Beznosov (2016), Balau (2017), Manajat (2017), Angelis, Wells and Brosseau (2018) Dlamini, Ncube and Muchemuna (2015), Synman (2016) which found that sharing of irrelevant and disappointing posts, poor engagement of users, infringement on Peoples' privacy, high cost of Internet connection and fraud, lack of computer access, lack of computer competency, paucity of evidence, effects of physical interaction and privacy invasion were the major challenges associated with SM use.

The information needs of the PLHIV were also significantly related to the sources of information. This means that the identification of the information needs by the PLHIV will increase the use of the information sources. Similarly, it was also inferred from the hypotheses that there was no significant relationship between the information needs of the PLHIV and the types of information shared. Though there was a positive relationship between the two variables it was not significant. Similarly, there was a correlation between the information needs and the information sources of the PLHIV in the study area. The desire for information motivates the PLHIV to become an information seeker, as a result, the information seeker uses any source of information that will satisfy the information needs.

4.5 Proposed Framework for Using SM for Information Sharing in the Management of the PLHIV in Nigeria

Fig IV



The proposed conceptual framework consists of six variables, synchronized to give meaning and a simple way of using SM for the management of the PLHIV in Nigeria. The framework was designed into three segments representing the research variables of the study. The first segment consists of the information needs of the PLHIV and the SM used. The second part consists of the information shared for the management of the PLHIV and the challenges associated with the use of SM. The third part includes the management of the PLHIV which includes treatment, care, control self-management and prevention of HIV. This clearly explained the structure of the whole research; all the variables of the study connected and joined together to have a common approach towards the management of the PLHIV. The explanation below will treat each variable, as presented in the framework.

- Information Need of the PLHIV: for proper management of the PLHIV, there is a need to understand their information needs. The PLHIV need different types of information which include health, economic, social and political.
- Social Media Used: SM was used for information sharing to manage the PLHIV.
- Information shared for the management of the PLHIV: different types of information on the management of the disease were shared with the PLHIV. The information was sourced using different types of information sources such as; physicians who shared information with the PLHIV using SM platforms such as Facebook, WhatsApp and Twitter.
- Challenges Associated with SM for Information Sharing in the Management of the PLHIV: there were a lot of challenges associated with SM used for managing the PLHIV. Such challenges include; lack of physical interaction, privacy invasion, lack of IT

literacy, poor quality of video and audio transmission, unreliable information and fear of sharing fake news, etc.

- Management of People Living with HIV: the PLHIV in Nigeria was managed by different People, organizations, agencies, and institutions such as Physicians, NACA, NEPWHAN, HIV support groups, friends and colleagues, radio and television. NACA, NEPWHAN and HIV support groups. They shared information with the PLHIV through SM messages.

5.4 Conclusions

In conclusion, SM served as a channel of information sharing in the management of the PLHIV in Nigeria. The use of SM in the management of PLHIV was the most operational method of restraining the spread of HIV in the current IT era. NACA as an agency responsible for regulating the activities of the PLHIV effectively performed its duties and responsibilities by sharing relevant information with the PLHIV.

5.5 Recommendations

The following recommendations were made based on the findings of the study:

1. The government at all levels should try as much as possible to help the PLHIV satisfy their information needs by using all methods and strategies available including SM to share relevant information with them.
2. The PLHIV should be encouraged to intensify the use of printed sources of information such as magazines, newsletters and HIV journals because they contain a lot of relevant information.

3. The government and all HIV stakeholders should use SM messaging, online forums and other online information-sharing channels to reach out to the PLHIV for HIV service delivery.
4. The government and all HIV stakeholders should come up with a policy that will integrate the use of SM in the management of the PLHIV.
5. The HIV stakeholders should assist the PLHIV to create a global linkage through the use of SM with other PLHIVs where they can share information that may help them reduce the level of depression and anxiety they experienced following the diagnosis of the disease.
6. NACA should not limit itself to Facebook and Twitter. They should also use other SM types like WhatsApp and YouTube for effective service delivery.
7. The HIV stakeholders should use SM as a supplemental means of information sharing because it has a negative impact on People's social lives, as such other means of communication that support physical interaction should also be used as channels of information sharing.

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