

Health Information-Seeking Behaviour of Visually Impaired Persons in Ibadan Metropolis, Nigeria

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Persons living with visual impairments form a major group of people with various types of impairments in African countries. Little has been reported about the means and forms of information they seek to cope with their environment, and studies in Nigeria specifically, have not explored health information-seeking behaviour of visually impaired persons. This paper documents the health information-seeking behaviour of visually impaired persons (VIPs) in Ibadan Metropolis. A standardized questionnaire was administered to 200 VIPs sampled from two health facilities in Ibadan Metropolis. Most (66%) of the VIPs were partially sighted, 43% reported health issues as their most worrying challenge, while 20% reportedly had daily unmet health information needs. VIPs accessed information about medication for ailments from friends (45%), adopted herbal medication (50.5%) and /or indulged in self-medication (21%). They reportedly had worse health (9.5%) status, while 4.5% reportedly remained worse off emotionally. The study concludes that VIPs considered health challenges and limited access to health information as their major concerns. Care for visually impaired persons should be incorporated in the primary healthcare routine and school health curriculum. Media programmes are also required to sensitise the general public about health information needs of VIPs.

Keywords: Information-seeking behaviour; Information Communication; Visual Impairment; Blindness; Nigeria

Introduction

Information- seeking, acquisition and sharing are to a large extent dependent on functional capability of human sensory organs. Willetts (1997) observed that human beings absorb 80% of information about their immediate environment by means of sight, and living with visual impairment therefore makes information sharing difficult. Visual impairment relates to a person's eyesight which cannot be corrected to normal vision (WHO, 2014). Global visual impairment statistics present some trends. For instance, in 2010, 2.1 million people were blind and 6 million people were visually impaired through macular degeneration, except for

those caused by diabetic maculopathy (Jonas, 2014). About 285 million people were estimated to be visually impaired worldwide; this population comprised 39 million who are blind and 246 million who have low vision (WHO, 2014). According to the report published by the International Agency for the Prevention of Blindness (IAPB, 2014), about two-thirds of the world's blind are women. A report on a systematic review and meta-analysis of vision health disparities in blindness and visual impairment in Nigeria also indicates that blindness was 40% more common among women irrespective of age, as indicated in the global population-based blindness survey carried out from 1980 to 2000 (Akano, 2017). Approximately, 87% of visually impaired people (VIP) live in developing countries and 85% of all visual impairment is avoidable (WHO, 2010; Omede, 2015; Muhammad et al., 2011). In Nigeria, there are approximately 400 ophthalmologists servicing the entire population (approximately one per 400,000 people) with a large number of ophthalmologists residing and working in urban areas (80%) despite the fact that about 70% of the Nigerian population lives in rural areas (Rabiu et al., 2012). Sightsavers (2014) observed that the most common cause of visual impairment and blindness in Nigeria are cataracts.

In Nigeria, about 1 million adults are estimated to be blind, while 3 million are said to be visually impaired (Sightsavers, 2014). It was also recently noted that 42 out of every 1000 adults aged 40 and over are blind. Relatively recent studies found that the prevalence of mild to moderate visual impairment and blindness is higher for women than men, while the prevalence of severe visual impairment is higher among men than women (Kyari et al., 2009). Akano (2017) expresses how negligence by men disregarding or ignoring their vision problems until they become severe before seeking medical attention, might be a major contributing factor. Reduction in the visual impairment can possibly be achieved by appropriate health education programs on eye care and provision of integrated, sustainable, affordable and equitable services (Omede, 2015). Ulldemolins et al. (2012) found a strong linkage between health disparities and many social determinants such as gender, socio-economic status or having certain health conditions. This understanding heralded international efforts such as the Cuban initiative called Operation Miracle, targeted at restoring the vision of 6 million people in non-industrialised nations (WHO, 2010; Kirk, 2011). Other health development organisations both local and international are reported to have also made efforts in eliminating health disparities that occur on the basis of gender, education, income, race or ethnicity, disability, geographical location and sexual orientation (Akano, 2017).

Visual impairment is a disability and attracts discrimination and stigmatization in certain contexts. In response, many countries have instituted some or other law. For example The Disability Discrimination Act (DDA) passed by the Parliament of Australia in 1992, makes provisions, rendering it unlawful to discriminate against individuals on the grounds of their disability status in specific areas of public life, including requests for information by VIPs. Omede (2015) observed that people with visual impairment can never live comfortably on

pity and sympathy; rather, what they need are improved opportunities for quality education to enhance and diversify employment possibilities. Coastes (2012) observed that the Individual Educational Plan (IEP) developed in the western world, has the potential to meet the needs of VIPs. However, Momodu (2013) expresses numerous concerns in practice including the inadequacy of physical facilities such as libraries for effective learning in Nigeria, and not including much needed facilities for those with physical disabilities. Onuigbo (2011) specifically observed that even when there are physical facilities such as a library, students with visual impairment encounter profound barriers in accessing the internet due to the unavailability or lack of assistive technology devices. Visual impairment often leads to a change in social relations; hence, identification of supportive needs could be helpful in analysing the changes. As a matter of fact, sign language is critical in facilitating this process, but has so far not been widely available for visually impaired people (Schmidt and Kunnig, 2016).

Visually impaired persons have suffered different forms of discrimination based on stereotypes. These range from architectural discrimination (Okoli, 2010) to information-seeking and its access (Lawal-Solarin, 2012; Wang et al., 2014). Significantly, Lucky and Achebe (2013) found that visually impaired persons (VIPs) have limited access to information, a concern alongside the existing numerous challenges encountered by other persons with physical disabilities in accessing information (Ejedafiru and Isebe, 2011; Ilayaraja and Manoharan, 2012; Lawal-Solarin, 2012; Momodu, 2013).

Visually impaired persons' consistent information-seeking behaviour is justified by their need for self-assurance and a level of independence in all tasks (Coastes, 2012). In reality, vision loss may reduce success in attaining some developmental goals (Pfeiffer et al., 2011). For example, Sacks and Wolffe (2006) observed how adolescents with severe visual impairment cannot read non-verbal cues and have limited access to much of the information regarding social interactions that sighted adolescents have. In addition, the impairment hitherto affects their relationship with others. Pfeiffer and Pinquart (2011) for example documented how adolescents with visual impairments recorded lower opportunities to build romantic relationships and to form part of a peer group than their sighted peers. Therefore, there is a need for constant theoretical and empirical evaluation of this situation (Momodu, 2013).

Several local studies have addressed the challenges militating against efforts at reducing visual impairment problems; such as the challenges involved in educating visually impaired persons and its policy implication (Omede, 2015; Oladejo and Oladejo, 2011), information service delivery, access to published works, meeting their reading needs (Lucky and Achebe, 2013; Lewis, 2013), and accessing health care in hospitals (Ademola-Popoola et al., 2007). Oslon et al. (2015) noted that the meaning which people with impairment and disability assign to their condition affects their adjustment to the situation. Such meanings also influence their behaviours and how they see themselves through the eyes of others.

Understanding such meaning through research is important in disability studies. While previous studies on VIPs are relevant, none have focused on the health information-seeking behaviour of visually impaired persons in Nigeria. Knowledge of health information-seeking of VIPs is critical in developing and supporting appropriate programs targeted towards their health needs. Thus, this current study has the specific objectives of exploring and understanding the health information-seeking concerns and behaviours of VIPs, their perceived health status, their unmet health needs and the coping strategies adopted in Nigeria in order to understand their experiences related to their disability and impairment condition.

Ibadan: Context

Ibadan is the capital of Oyo state in south-west Nigeria. Ibadan came into existence in 1829 (Lyold et al., 1967) and is located 128 km inland northeast of Lagos and 530 km southwest of Abuja, the Federal Capital. Ibadan is the third largest city in Nigeria. It has a total area of 1,190 square metres (3080 km) at an altitude of 248 metres. The region of Ibadan is made up of urban and rural areas and has an estimated population of 3,232,016 (National Population Commission (NPC), 2014). The city of Ibadan is naturally drained by four popular rivers: Ona River in the north and west; Ogbere River towards the east; Ogunpa River flowing through the city; and Kudeti River in the central part of the metropolis. Ibadan has a tropical wet and dry climate, with a lengthy wet season and relatively constant temperature throughout the course of the year. However, there is a noticeable change in temperature on account of climate change.

There are eleven (11) local government areas (LGAs) in Ibadan Metropolitan area, consisting of five urban LGAs in the city and six semi-urban LGAs in the inner city. Ibadan is a major centre for trade in cocoa, cotton, cassava, timber and palm oil among others. The main industries in the city include the processing of agricultural products, dairy products, tobacco processing and cigarette manufacturing, flour milling, leather and furniture production. The major languages in the area are Yoruba and English (Official). However, the area is also home to other ethnic groups including the Igbo and Hausa.

Methodology

This study utilises a descriptive cross-sectional research design aimed at profiling the health information-seeking behaviour of VIPs in Ibadan. The study population consisted of visually impaired persons (VIPs) sampled from two major health facilities where eye care services are offered in Ibadan. A total of two hundred respondents were sampled from both the University College Hospital (UCH) and Adeoyo government hospital, Ibadan. Respondents were VIPs with different sociodemographic characteristics including gender, level of education,

religious background, marital status, ethnic background and occupation.

The unit of analysis for this study was an individual VIP who had being on check-up registration for not less than six months. A pretested questionnaire which was moderated by the interviewer was administered to 200 VIPs who consented to participate in the study. Two interviewers with strong background in social research were recruited to administer a semi-structured questionnaire.

A two-day training was organised for interviewers on the context, the instrument, concepts of disability, the process of identifying the participants in the study at the facilities involved, and ethical issues including informed consent. The first day of training addressed the key areas highlighted, while the second day was for role play after which interviewers proceeded to the field for pretesting the instrument and the method. Pretesting was carried out in a private eye care facility. At the end of the pretest, lessons were learnt and adjustments were made to the instrument as well as time spent on administering the questionnaire. The instrument used to collect data for this study had four major components which addressed the sociodemographic structure of the respondents, information sources of VIPs, perceived health status, and challenges and strategies adopted to cope with impairment. The semi-structured questionnaire also contained many open-ended questions which participants responded to in a narrative way. This gives additional insight to the close-ended questions in the questionnaire. Responses to the open-ended questions were written verbatim and carefully to ensure that all the narratives were well captured. Interviews were not audio-taped. Copies of the questionnaire were checked for completeness, cleaned, coded the close-ended questions, entered into the computer and analysed using the Statistical Package for Social Sciences (SPSS version 20), while open-ended questions were content analysed and both presented together to ensure a full description of the VIPs in this study. Copies of questionnaires used and the analysis output were kept in a safe in the office of the investigator. These were protected from access by other people.

Ethical procedures

On getting to the facilities, initial consent was sought from the health workers on duty, after which respondents' consent was sought. Respondents were politely moved to a location in the hospital where no one would distracted their full participation in the discussion. Consent from participants was sought verbally prior to this study. VIPs were also fully informed about the study before their participation. VIPs were duly informed of their voluntary participation in the study. They were also informed that they were at liberty to not respond to any question and that they had the right to end the interview at any time they wished. Data related to participants was anonymised and hence their names were not recorded in order to ensure that their identity was not traceable after the research. Participants were also assured that

whatever information they shared would remain confidential and would not be divulged to any other person. They were also assured that their participation would neither caused them any problem nor earned them immediate benefits, rather their responses could help in policy relevance and in designing appropriate programmes for VIPs in the future.

Limitations

This study has some limitations. It was restricted to only the VIPs who were on check-up registers in two public health facilities in Ibadan, leaving out those VIPs who utilised private facilities. Furthermore, while this study did not consider participants' socioeconomic background as a criterion for sampling selection, most participants were those of high socioeconomic status, which means that poor people are not adequately included or represented in this study. The results presented in this study represent the views of only VIPs who participated in the study and care should therefore be taken in not making generalisations about the nature of health information-seeking behaviour of all VIPs across all socioeconomic backgrounds.

Results from the study are presented in analytical form through combination of statistical descriptive form and the narratives that substantiate the statistics.

Results

Socio-demographic characteristics of the Respondents

The socio-demographic characteristics analysis shows that a large majority (94%) of the respondents were within active and productive age. Specifically, out of two hundred visually impaired persons (VIPs) surveyed, slightly below half (45.5%) were 36 years and older, followed by 19% who were between 26 and 30 years of age. About 52% were married, 27.5% were single, 12.5% were engaged at the time of survey, while 7.5% were separated. Table 1 shows that nearly half (46%) of the respondents were Muslim, 42.5% reportedly practised Christianity, while 11.5% practiced some or other indigenous religion. Large majority (62%) of the respondents had educational qualifications beyond school certificate with most (35%) of them having a university degree or higher national diploma as their highest educational qualification. About 13% of the respondents had postgraduate certificates, while only 12% did have more than a primary school leaving certificate. The sampling frame accidentally covered all major ethnic groups in Nigeria, out of which 48.5% of the VIPs were Yoruba, followed by 36% who were Igbo, and 12% of Hausa origin. Respondents were skilled (38%), unskilled (19%), students (28%) and pensioners (10%). In terms of status of impairment, respondents reportedly were either partially blind (66%) or totally blind (11.5%).

Table 1: Socio-demographic characteristics of the respondents (N=200)

Characteristics	Frequency	Percentage
Age		
15-20 years	12	6.0
21-25 years	36	18.0
26-30 years	38	19.0
31-35 years	23	11.5
36 and above	91	45.5
Marital Status		
Married	105	52.5
Single	55	27.5
Engaged	25	12.5
Separated	15	7.5
Religious Affiliation		
Islam	92	46.0
Christianity	85	42.5
Indigenous	23	11.5
Educational Level		
Primary	24	12.0
Secondary	52	26.0
NCE/OND Level	29	14.5
HND/B.Sc/	70	35.0
MS.c/PhD	25	12.5
Ethnic group		
Yoruba	97	48.5
Igbo	72	36.0
Hausa	29	14.5
Others*	2	1.0
Occupation		
Skilled labour	76	38.0
Unskilled labour	63	19.5
Students	56	28.0
Professional	8	4.0
Managerial	1	0.5
Pensioner	20	10.0
Nature of Visual Impairment		
Totally blind	23	11.5
Partially sighted	132	66.0
Congenitally blind	45	22.5

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Information Sources of Visually Impaired Persons

Respondents in this study reported their sources of information. Table 2 shows that 30.5% of the respondents reportedly got their information from families and friends. They also got information through television (24%), undifferentiated media (21%) and internet (5.5%). Table 2 also indicates that libraries were accessed by about half (48%) of the respondents to explore technology, 16% to prepare for class test, while 10% used the library to obtain books in adapted formats. Visually impaired persons, it was clear, source different types of information on a daily basis. Information relating to wellness of VIPs dominated the list focusing on health, housing and recreation as shown in Table 2. Specifically, about 19% reportedly required information on health-related issues and governance. Respondents also sought information about recreation (14%), housing (14.5%) and income related issues (11%). However, VIPs also reportedly expressed unmet needs for information. For instance, one-third (33%) of the respondents asserted that their information needs pertaining to finance were not met, 20% expressed unmet health information needs, and 17% reported unmet information on income. Dissatisfaction about transportation information needs was expressed by 12% of the respondents. Reasons for dissatisfaction were further elaborated in the narratives. For instance, participants described access to good transportation as central to access places of work, health-related information, health care services and other places they desired to visit. In the words of a 21 year old male student in tertiary education:

One cannot walk a long distance around. It is our family members and friends who help and guide us most times. Most times, my friends help me in school to walk together from hostels to lecture rooms and back to the room. And any student around also give help once they notice I'm in need.

Concern was however raised on the porous and unorganised state of the transportation system in Nigeria, which does not favour VIPs' movement around without adequate support from a friend or family member. For instance, another participant expressed:

To get to this health facility for check-up today, it took me a while. I noticed there was too much rush at the bus stop. How can you get someone to help you into the bus when everyone has to struggle to get a seat in the bus? (Female participant, 35 years old)

Impediments in accessing public information were faced on the ground of technical inadequacy (36.5%), financial problems (27.5%) and poor attitudes of personnel in charge of information (12%) as shown in Table 2. Respondents freely expressed concerns about the barriers in accessing public information:

It is difficult when one lacks technical knowhow (Male participant, 21 years old)

Without money there is no much access to information (Female participant, 32 years old)

Personnel in charge most times hoard information (Male participant, 23 years old)

Table 2: Information means and access by the VIPs (N=200)

<u>Information Activities</u>	<u>Frequency</u>	<u>Percentage</u>
Information Sources		
Family and friends	61	30.5
Television	48	24.0
Book	37	18.5
Radio	43	21.5
Internet	11	5.5
Information Required Daily		
Government	39	19.5
Health	39	19.0
Housing	29	14.5
Recreation	28	14.0
Income	22	11.0
Finance	18	9.0
Legal information	12	6.0
Purpose of Library usage		
Explore Technology	96	48.0%
Looking for Publication	52	26.0%
Class Test	32	16.0%
Order for books in Adaptive Forms	20	10.0
Unmet Information Needs		
Finance	67	33.6
Health	40	20.0
Income	34	17.0
Transportation	24	12.0
Technical (technology knowhow)	22	11.0
Politics	13	6.5
Impediments to Accessing Public Information		
Technical inadequacy	173	36.5
Financial problem	55	27.5
Adaptive challenge	48	24.0
Poor attitude of Personnel	24	12.0

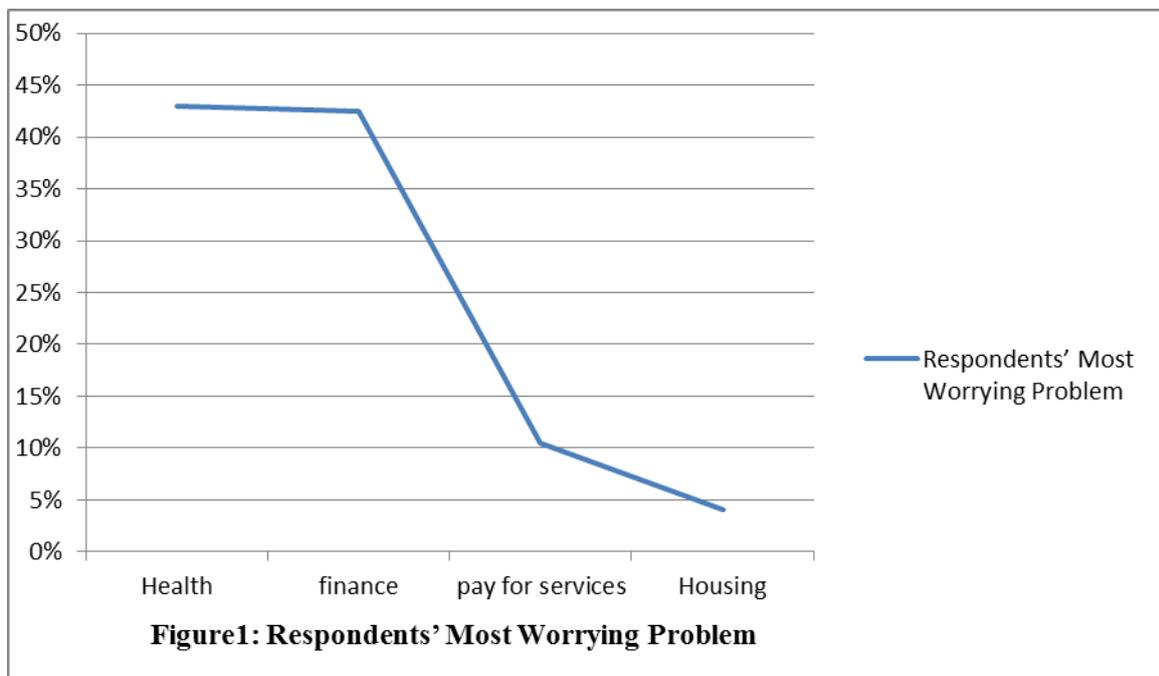
In spite of all unmet information needs, the respondents identified their most worrying challenges to include: access to healthcare (43%), finance (42.5%), ability to make payment

for services (10.5%) and access to quality housing as shown in Figure 1. Major concerns were however raised on access to healthcare services as the following narratives highlight:

How to get quality health service, treatment and procurement of quality drugs.
 ...enough money to meet up with buying drugs, good foods and payment for treatment at hospitals.

A 42 year old female VIP emphasised the value of good health as a primary concern and priority among everyone:

Health is wealth. After health it is money that is next. After money it is still money, because it is money that we use to get good health.



Perceived health status of visually impaired persons

Data on the respondents' perceived state of their health and health-related activities show that half (50.5%) of the respondents reportedly visited an eye clinic once a week, while 17.5% went to the clinic on a regular basis. The majority (78%) of respondents rated their health status to be 'good', while about 16.5% and 5.5% rated their health to be 'fair' and 'very poor' respectively. More than half (56.5%) of the respondents reportedly had 'good emotion' while 4.5% rated their emotional health to be 'bad'. Bad emotional health outcome could be attributed to comorbidity of other ailments reported by 62% of the respondents. Emotion of the respondents was based on their state of mind and in the way they perceived it at the time

of the survey. They reported feeling free ‘heavy’ thoughts and preoccupations on account of insecurity. Respondents who were able to get what they needed at the time of the survey without stress, or those who hoped to get what they needed, reportedly perceived themselves as having “good emotion”, while those without any hope concerning their needs considered themselves as having “bad emotion”. Relatedly, respondents who had some or other crisis at home or in the neighbourhood or with peers, considered themselves as having “bad emotion”. Respondents’ feelings also led them to either *think less about themselves, feel inferior to others, or feel incapable of doing things*, while those who were free from such thoughts considered themselves as having “good emotion”. These conditions (good emotion/bad emotion) reflect VIPs’ perceptions of how people see them, and hence defining their state of mind and being in similar ways. For instance, a 45 years old female respondent expressed in a narrative:

When people behave in an unacceptable way to you, then you feel it was because you are not acceptable to them, so it makes you *think less of yourself and you would develop a bad emotion*.

Respondents compared their health status at the period of this survey with their status in the last 12 months before the survey. Table 3 indicates that slightly below a quarter (24%) of the respondents expressed a noticeable improvement in their health over the year, less than half (46.5%) of the respondents reportedly felt somewhat better, while 2% reported much worse health status compared to the previous year. Respondents attributed their health status at the period of the survey to: improved hygiene practices, regular hospital check-ups, and strict adherence to instructions from health workers. Respondents with worse conditions attributed it other health conditions they had. The following narratives highlight:

I think it is because we come for regular check-ups here and we followed the instruction and advice of health workers strictly. These have improved our personal hygiene practices too (Male participant, 35 years old).

I do everything possible as advised at every check-up by health workers but the presence of other illnesses in the body make the whole situation worse (Female participant, 45 years old).

Table 3: Respondents’ perceived state of their health and health-related activities (N=200)

Perception about health status	Frequency	Percentage
Visit to eye clinic		
Very Often	35	17.5
Once a week	101	50.5
Monthly	64	32.0
Current health Status		

Very Good	99	49.5
Good	57	28.5
Fair	33	16.5
Very Poor	11	5.5
Comparison of health Status		
Much Better	48	24.0
Somewhat Better	93	46.5
Same	40	20.0
Somewhat Worse	15	7.5
Much Worse	4	2.0
VIP perceived emotional health		
Very Good	35	17.5
Good	78	39.0
Average	78	39.0
Bad	7	3.5
Very Bad	2	1.0
Presence of other health challenges		
Yes	124	62.0
No	76	38.0

Coping Strategies of visually impaired persons

Part of the interest of this study was to profile the coping strategies of VIPs. Table 4 highlights the adaptive mechanisms adopted by respondents in coping with their information-seeking challenges. The majority (60%) of the respondents reportedly used braille display, about one-fifth (19%) of them used speech synthesizer, followed by 16% who reportedly made use of software magnifiers. Concerning VIPs' sources of help to obtain the adaptive mechanisms, Table 4 indicates that the majority (67%) of VIPs sought financial help from families and relatives for reasons such as the following narratives highlight:

The first and often only port of call

Your family and relatives cannot leave you to suffer

They have always being of help

That is our first point of contact

Also, 21.5% reportedly received financial help from friends, while 11.5% sought financial help from government. A 32 year old female participant expressed that:

The family gives us food, money, provides us with security and guides us on transportation to anywhere we go. Our friends show us good emotion and give us money sometimes. The government distributed glasses during programmes. Sometimes they help us when we approach them. Non-governmental organisations have also distributed glasses before.

A 38 year old male participant, however explained that this support from government is not always available and also not regular enough:

Help from government is not always regular. It is only when there is a program and government remembers us.

In the same way, when respondents were asked about the type of human help they required, more than one-third (35%) wanted family support, 33.5% requested healthcare, followed by 31.5% who reportedly wanted financial support.

Table 4: Coping Strategies of the Visually Impaired Persons (VIPs)

Strategies	Frequency	Percentage
Adaptive equipment used		
Braille Display	120	60.0
Speech Synthesizer	38	19.0
Software Magnification	32	16.0
Others	10	5.0
Sources of help for adaptive equipment		
Relatives	70	35.0
Family	64	32.0
Friends	43	21.5
Government	23	11.5
Supports different from adaptive equipment		
Family Support	70	35.0
Health care	67	33.5
Financial Support	63	31.5

Narratives on access to assistive devices clearly indicate the relevance of devices to quality of life for VIPs. A male participant expressed how his reading ability is dependent on Braille display. Another person with partial impairment appraised the usefulness of software magnification:

The speech synthesizers help me a lot when there is no one around to guide me (Male participant, 42 years old).

I cannot leave my assistive devices even for a minute. I go everywhere with them, so I appreciate my family for their help in making the devices available to me (Female participant, 23 years old)

Respondents' eye care information and treatment pathways

Data on eye care treatment pathways of the VIPs in this study indicate that less than half (44.5%) of the respondents reportedly obtained information about eye treatment through friends, 39.5% through radio, while 16% got to know about available eye care services through other media outlets. However, the majority of respondents did not consult eye experts. Figure 2 shows how slightly above than half (50.5%) of the respondents reportedly used herbal medication to treat their eye impairment first. Self-medication was practiced by 20.5% VIPs, one-fifth (20%) followed it up with use of government hospital services, while less than one tenth of the respondents consulted community pharmacies. A 42 years old female VIP explained how among the push-factors in practicing self-medication, were the 'transportation huddles':

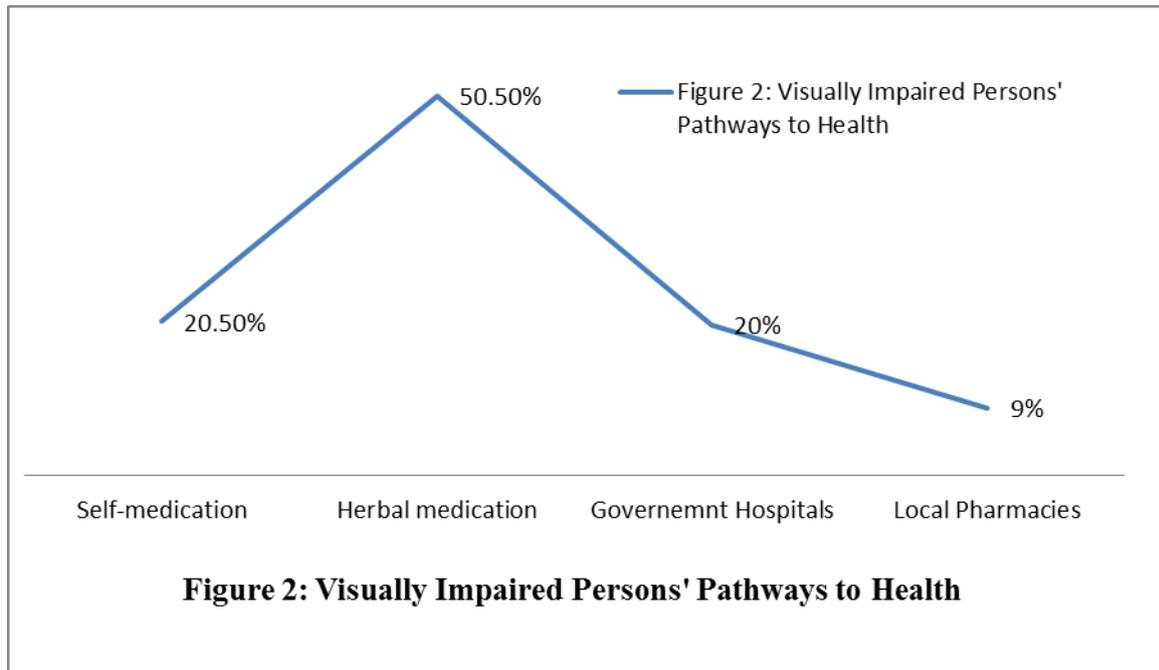
Instead of running to hospital, with transport cost and huddles on the roads, one can easily use old drugs at home, or send someone, new ones in a nearby chemist.

Overall, all the respondents returned to the formal health facilities where the survey was carried out. When they were asked to explain the factors that determine their pathways, responses were varied:

These are suggestions from the family and relatives (Female participant, 23 years old)

One has to try all treatments suggested (Male participant, 42 years old)

One is not sure of which treatment source would work (Female participant, 38 years old)



Discussion

The unmet information needs of the VIPs are numerous, while their health concerns are a priority. Also, VIPs adjust to their condition using strategies relative to their daily challenges. With 66% of VIPs in study being partially sighted, 4.5% of who are professionals and 38% being skilled labourers/workers, one can suggest that adjustment strategies are indeed in place in dealing with and responding to their daily challenges. This also confirms the suggestion by Omede and Oguche (2016) that educational programs for persons with disabilities at all levels of education should be tailored toward providing them with the needed entrepreneurial skills. Hence, it could be deduced that educational programmes for persons with disabilities need to also support them and VIPs in seeking and obtaining information. Also, in this current study, about 16% of the VIPs reportedly access libraries to prepare for class examinations. In effect, this indicates that VIPs’ information-seeking behaviours promote improved knowledge (Kakai et al., 2004) and awareness of health promoting activities and behaviour.

This study, in line with others (see Agarwal et al., 2016; Abdulraheem, 2007; Cimaroli et al., 2016; Salive et al., 2015; WHO, 2014; McCann et al., 2012; Stevens, 2003) also reveals how visual impairment is higher among older people.

Besides health concerns, respondents in this study are also bothered about transportation information. This is similar to findings in other countries. In Taiwan, for example, the Ministry of Interior reported how transportation issues constituted an important informational

requirement, yet an unmet need for VIPs (Taiwan Ministry of Interior, 2006). In this study, one-third of respondents attributed the poor access to information to technical inadequacies, 27.5% of the VIPs attribute it to financial problem, while 12% reported the personnel in charge of information as responsible for the poor access to information. While the present study identifies unmet information needs of respondents as their most worrying challenges (including health, finance, and housing services in Nigeria), transportation constituted the most critical problem for visually impaired persons in other countries such as Taiwan (Wang et al., 2014). The transportation system is not subsidised in Nigeria while there exists a limited access to good road networks and good vehicles, hence use of *Okada* (commercial motorcycle) is popular. This means that VIPs are forced to seek support from family or relatives in order to deal with transportation hurdles.

This study documents the wellbeing of VIPs by considering their physical health, emotions, and wilful involvement in community activities. Studies have revealed that sight is an important indicator of health and quality of life (Asfar et al., 2015). More than half (56.5%) of the respondents in this study have stable, good emotion compared to 4.5% VIPs who rated their emotional health to be bad. Similarly, higher levels of visual impairment are associated with more depressive symptoms and lower life satisfaction (Margrain et al., 2012; Brown and Barrett, 2011; Tsai et al., 2003). McCusker and Koola (2015) also recommend greater recognition and treatment of depression among individuals with impaired vision, while Bickenbach et al. (2016) observe that a lack of freedom, control, flexibility and restricted participation in community activities often culminates in diminished physical health and psychological wellbeing in the short and long-term. These further corroborate the findings of this study. For instance, the confirmation of “good or bad emotion” of the VIPs in this study is a confirmation of their behaviour and how they see themselves through the eyes of others (Oslo et al., 2015).

Since sight remains an important indicator of health and quality of life, VIPs have developed different coping strategies around their disabilities to maximise the opportunities within their environment. The adoption of braille display by the majority of VIPs as a coping strategy in this study, was clearly in line with Rosenberg and Sperazza’s (2008) highlighting the benefits of vision-enhancing devices. Similarly, just as refined speech technology is required to meet the needs of different types of disabilities (Lucic et al., 2015), about one-fifth of respondents in this study reportedly adopt speech synthesizers. Awareness about the unmet needs of the VIPs is important. Stevens (2003) hypothesizes that until people, especially health workers, understand the needs of VIPs, recognise their abilities, and learn how to support them, their needs will remain unmet. This study confirms that one-third (33.5%) of respondents reportedly require healthcare service as one of the core areas of perceived need.

The practice of self-medication by VIPs is reported in this study. In 2012, McCann and colleagues found that older people with visual impairment are more than twice as likely to

need help in managing medication. The narratives in this study indicate the cost of drugs, transportation and distance in obtaining drugs, as some of the factors that push VIPs to resort to self-medication. One-fifth (20.5%) of respondents that reportedly self-medicated, fell within the elderly category. Also, a previous study reported how consumers' access to herbal medicine is not prescription controlled, allowing widespread use (Girard and Vohra, 2011). This explains why slightly above half (50.5%) of the respondents in this study opted for herbal treatment, which is a variant of self-medication practice or acts as a gateway for self-medication. Generally, studies have documented that patients have enough information to make informed treatment decisions from relative, friends, magazines and the internet (Gardiner and Riley, 2007; Khader et al., 2008; Low, 2009), which are similar to the findings of this study.

The pathways of VIPs in this study offers insights for program development for visual impairment and other disabilities. The pathways of treatment-seeking of individuals may be influenced by various factors such as the influence of the family, relatives and significant others, cost of treatment and access to treatment. The pathways here show the different sources through which VIPs sought for treatment. These may be influenced by VIPs' perception of the causes of the condition, hence the belief of an individual on his/her condition as either "natural" or "not natural" influences the type of treatment sought.

Conclusion

Among the myriad of unmet information needs identified in both present and previous studies, health information needs constitute the most important ones that cut across all ages. Thus, to optimise the health statuses of VIPs, health practitioners should involve facilitators of primary healthcare centres, educational institutions and the media in sensitising the general public about the health needs of VIPs. Good health and wellbeing are major global concerns in global agendas including the Sustainable Development Goals (SDGs). The wellbeing of disabled people is an important dimension that cuts across these goals. People living with visual impairment form a major category of disabled people. Also, in attempt to achieve reduced inequality— another SDG- the government should intensify its responses to the needs of VIPs by incorporating care services for them in primary health care services in Nigeria, and implement policy that will enhance equal access to information and healthcare services. Implementation of a national health insurance scheme that will enable the poor, elderly, and disabled people, including VIPs to access healthcare at a free or subsidized rate, is also recommended.

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