

THE INFORMATION NEEDS AND INFORMATION SEEKING BEHAVIOURS OF PERSONS WITH BLINDNESS AND VISUAL IMPAIRMENT IN LUSAKA, ZAMBIA

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ABSTRACT

This study was carried out to examine the information needs and information seeking behaviors of persons with blindness and visual impairment in Lusaka, Zambia. The study looked at the kinds of information persons with blindness and visual impairment require in their daily lives, the formats in which they access information, sources of information preferred, the barriers to information use and access faced when seeking information. This study was both qualitative and quantitative in nature. 50 persons with blindness and visual impairment conveniently selected participated in the study. Semi-structured interviews were used to gather primary data. Results from the field reveal that persons with blindness and visual impairment have information needs similar to those people who live normal lives ranging from health (80%), education (70%), income (74%), agriculture (30%), finance (40%), recreation (18%), government (80%) and legal (36%). The study also reveals that the blind and VIP have additional information needs (12%) that are specific to them as blind and VIP and these include information on their position as disabled people, rights and entitlements, political consciousness and coping with life situations i.e. information about their condition, the aids, equipment and services that are available, as well as self-help groups. Persons with blindness and visual impairment in this study access information in oral (40%) as well as in other formats such as audio cassettes (30%), print (20%) and electronic (10%). The results further reveal that the sources of information for persons with blindness and visual impairment include family members (40%), mass media (16%), friends (30%), Internet (4%) and libraries and information centers (10%). The main barriers persons with blindness and visual impairment face to access and use information include lack of skills (76%), distance (72%), illiteracy (70%), lack of assistance from the community to get the needed information (64%), discrimination (62%), cost (58%), inadequate libraries & information centers with suitable facilities (52%), inadequate equipment (30%) and age (20%). The study recommends for enactment of a policy to address the educational needs of persons with blindness and visual impairment in terms of information infrastructure, expertise and equipments. Also recommended in the study is the need for library and information centers to design and develop accessible facilities and provide inclusive information services.

Keywords: Braille, User behavior, information retrieval, information needs, information seeking behavior, Zambia, developing countries, social exclusion, blindness, visual impairment.

1.0 INTRODUCTION

Information has come to be recognized as a critical resource in every sphere of human activity. At the same time as our world becomes more complex, we all need to make greater use

of information at work, for education, in business and for leisure. Most critically, we need to acquire and process more and more information simply to function as a social being (Moore, 2000). Information is a prerequisite for informed action at individual, institutional, national and global levels. At the personal level, information helps individuals to achieve self-fulfillment. At organizational level, relevant, accurate, complete and timely information is critical for management functions such as organizing, coordinating, planning, directing, budgeting, controlling, staffing and decision making. Compared to other critical resources such as labor, capital and property, information provides an organization with the competitive edge in this age of scarce resources. In this regard, information must be efficiently utilized in order to survive and achieve organizational objectives. At national level, information plays a crucial role in development. Any developmental effort requires adequate input of information to enable planners and policy makers to select the best options in a given context. With the availability of appropriate information, alternative solutions can be weighed and pursued (Fuller and Mafumder, 1991). Information helps to improve productivity by minimizing the chances of unnecessary duplication.

In today's information and knowledge society, there has been an increasing emphasis on the importance of people including persons with blindness and visual impairment to access and use information so as to be informed and participate effectively in national development. According to Moore (2000), lack of access to information contributes directly to social exclusion. Without adequate access to information, people are unable to play their parts as citizens, they cannot make informed choices as consumers and they are unable to benefit fully from all that society has to offer. In fact, Moore amplifies that persons with blindness and visual impairment need information to support them in two roles they play in society: as citizens and as consumers. They also need information to help them build up an understanding of the world they live in and be able to get answers to specific questions that bother them and simply to function as social beings. However, the National Plan of Action (2008) claims that lack of information is one of the biggest problems facing persons with blindness and visual impairment. Additionally, Williamson et al (2001) observed that while there is literature about the information needs of people with disabilities in specific settings, for example in universities, there is very little known about information needs for everyday life or the sources of information most frequently used by people who are blind or visually impaired. Thus, understanding the information needs of persons with blindness and visual impairment is key in resolving their information and knowledge gaps. Similarly, examining the ways in which required information is met helps information providers to understand whether the existing information provision mechanisms are effectively meeting the information needs or not. This will enable them make reasonable adjustments for such special people as persons with blindness and visual impairment.

The right of persons with blindness and visual disabilities to communicate and access information is recognized as a critical issue that requires immediate attention. It was therefore, imperative to investigate the information needs and information seeking behaviors of persons with blindness and visual impairment in Lusaka, Zambia.

1.1 Statement of the Problem

According to Singh and Moirangthem (2010), being able to access, use, read and understand information and communicate it is not only a precondition to participate in social life, it is also a key to quality of life for the individual. Additionally, information is a means to an end, something that enables us to make choices that may improve our well-being (Moore, 2000). For persons with blindness and visual impairment, the mere fact that information exists is not

enough. They must be able to access that information through whatever valid information source they may choose to employ and the information they discover must satisfy their general or specific needs (Fuller and Majumber, 1991). Fullmer & Majumder add on to say that “information or knowledge is power. The ability to obtain and use information about any subject gives a person the opportunity to choose a path from many alternatives instead of being limited to a few perhaps unwanted or unfeasible choices”. If use of identified relevant content is hampered, resolving the known gap in information knowledge will definitely fail. As Kebede (2002) noted, use of information is directly related to understanding and meeting the information needs of users.

However, the challenges in this information age facing persons with blindness and visual impairment includes access to and use of relevant information. Thus, Singh and Moirangthem (2010) observed that being unable to access, use, read and understand information at the same level as everybody else is a serious disadvantage in the knowledge and information society. In fact, the lack of access to information contributes directly to social exclusion. Without adequate access to information, persons with blindness and visual impairment are unable to play their part as citizens; they are unable to benefit fully from all that society has to offer. In other words, persons with blindness and visual impairment are at risk of being excluded as a result of limited access to information.

A number of issues remain unknown concerning persons with blindness and visual impairment in as far as information access and use is concerned. In the first place, most information providers do not know the information persons with blindness and visual impairment require in their day to day living. Even, when they know, providing that information in right format is a challenge. Affirming the challenge faced by persons with blindness and visual impairment in accessing information, Roth (1991) observed that much information is usually disseminated in inaccessible format. Only a small fraction of information is made available in alternative format accessible to persons with blindness and visual impairment and it is mostly available at a cost/fee which most of them cannot afford and therefore, remain deprived of information. Secondly, persons with blindness and visual impairment are continually faced with issues relating to access to the physical and social environment. Most libraries are not designed to suit the needs of persons with blindness and visual impairment in terms of access to the buildings.

Nevertheless, little is known about the broad spectrum of information needs and information seeking behaviors for everyday life of persons with blindness and visual impairment (Williamson et al, 2000) worldwide and particularly in Zambia. Singh and Moirangthem (2010) amplifies that not much research is carried out on information needs and information seeking behavior of persons with blindness and visual impairment. Subsequently, less literature is available on this area. This study therefore, investigates the information needs and information seeking behaviors of persons with blindness and visual impairment in Lusaka, Zambia.

1.2 Objectives of the study

The general objective of this study was to investigate the information needs and the information seeking behaviors of persons with blindness and visual impairment in Lusaka, Zambia. The specific objectives were as follows:

1. To ascertain the kinds of information persons with blindness and visual impairment require.

2. To find out the format in which persons with blindness and visual impairment access information
3. To investigate sources or channels through which persons with blindness and visual impairment access information
4. To investigate the barriers persons with blindness and visual impairment come across to access and use information

1.3 Definition of key terms

1.3.1 Information

Information has many definitions but for the purpose of this study, *information* refers to “intelligence and knowledge that contributes to the social, economic, cultural and political well being of society” (Lundu, 1998:11).

1.3.2 Information Need

Information need is a state that arises whenever individuals find themselves in a situation requiring knowledge to deal with the situation as they deem fit (Irvall and Nielsen, 2005) or whenever the person has a knowledge gap that needs to be filled. It evolves from awareness of something missing, which necessitates the seeking of information that might contribute to understanding and meaning (Kuhlthau, 1993).

1.3.3 Information Seeking Behavior

Information seeking behavior is defined by Majid et al (2000) as a broad term encompassing the ways individuals articulate their information needs and the way they seek, evaluate, select and use the needed information.

1.3.4 Blind

In this study, the word *blind* is taken to mean “the total loss of eyesight” (Brockmejer, 1992). Blind persons might experience difficulty in moving around and knowing where things are, where to get the information they require, doing some activities of daily living, writing, reading and following visual signs or commands.

1.3.5 Visual Impairment

According to Howell and Lazarus (2003), *visual impairment* refers to people who have some degree of sight, but who have, for example, a limited range of sight and focus that cannot be easily corrected without spectacles, who are squint, who need special lighting to be able to see, who have blurred vision sometimes as a result of cataracts, or who have tunnel vision.

2.0 METHODOLOGY

The research design adopted both qualitative and quantitative approaches. The main data collection instrument employed for primary data was semi-structured interviews. The population under study consisted of 50 conveniently selected participants. Participants were drawn from Zambia National Library and Cultural Centre for the Blind (10), Munali Secondary School (20), Ministry of Community Development and Social Services headquarters (5), Cheshire Home of Lusaka Community Based Rehabilitation Programme (2), Ministry of Education Special Unit (3) and the streets of Lusaka (5). Five other participants included professionals who are blind. One was drawn from Ministry of Home Affairs, two from the Zambia National Library and Cultural Centre for the Blind and one from Ministry of Information and Broadcasting Services and one from the University of Zambia.

3.0 FINDINGS AND DISCUSSION

3.1 Gender and Age of respondents

The analysis from the study indicates that 64% of the respondents were male while 36% of the respondents were females. Thus, more men than females participated in the study. In terms of age of the respondents, the results as depicted in table 1 below indicate that 12% were aged between 0-15 years, 24% were aged between 16-25 years, while 28% were aged between 26-35 years and 36% were above 36 years. The findings show that most of the respondents were above 36 years.

Table 1: Age of respondents

Age of respondents	Frequency	Percentage
0-15	6	12
16-25	12	24
26-35	14	28
above 36	18	36
Total	50	100

3.2 Education levels of respondents

Contrary to the common situation in the rural areas, the urban persons with blindness and visual impairment are predominantly literate, 40% of them having secondary education and 34% college education. 14% of the respondents were educated up to primary while six percent were university graduates and another six percent indicated that they had no education at all. The results are presented in table 2 below. Similar to the findings of Williamson et al (2000), the participants of this study comprised of those who were born blind, and those who acquire blindness later on in their lives. It can therefore, be concluded that most of the respondents who are born blind attended a blind school, have learnt Braille and have been taught to lead independent lives.

Table 2: Education levels of respondents

Education levels	Frequency	Percentage
Primary	7	14
Secondary	20	40
College	17	34
University	3	6
None	3	6
Total	50	100

3.3 Kinds of information persons with blindness and visual impairment require

Table 3 reports the findings for the kinds of information persons with blindness and visual impairment require. The findings show that persons with blindness and visual impairment require information on a wide range of topics and these include health (80%), education (70%), income (74%), agriculture (30%), finance (40%), recreation (18%), government

(80%), legal (36%) and other (s) included environment, information about their disabilities and ways of coping with life activities (12%).

Table 3: Kinds of information persons with blindness and visual impairment

Kinds of information	Frequency	Percentage
Health	40	80
Education	35	70
Income	37	74
Agricultural	15	30
Finance e.g. access to loan facilities	20	40
Recreation	9	18
Government e.g. information on elections, housing and accommodation travel and employment	40	80
Legal	18	36
Other (s)	6	12

Multiple response question

The findings concur with previous studies that reported that persons with blindness and visual impairment have information needs similar to those people who live normal lives (Williamson et al, 2000). According to Moore (2000), the blind need information just like sighted people:

- to be sufficiently well informed so as to participate fully as citizens;
- about their rights and entitlements;
- to make rational choices as consumers
- to support them in their work, their learning and their leisure

In the first place, Moore observed that persons with blindness and visual impairment have the same wide range of health information needs as everyone else. Particularly, they require information about illnesses, their treatment, prevention, healthy living and how to cope with chronic conditions. In terms of education, the findings reveal that persons with blindness and visual impairment desire to have more information on specialize schools that can meet their individual needs, school program options and support services, books and instructional materials in appropriate media (including Braille) as well as specialized equipment and technology that meet their educational needs. Brockmejer (1992) observed that the information needs of the blind and visually impaired students on education relate to writing assignments such as information on literature needed for the assignment, where to find such information and how to access such information.

In addition, the findings of the study reveals that the mostly required information on income has to do with assistance programs or activities they can do that can help to provide them income to meet basic needs for food, clothing, and shelter. The blind further lamented that they lack information on how to go about seeking financial aid either to go to school or start up a business. Affirming the need for financial and income assistance, previous studies observed that persons with blindness and visual impairment lack of finances (Sinks & King, 1998) and income (Williamson et al, 2001) to meet their basic needs and to pay for information access. Information on recreation and other topic such as legal, transport, and government e.g. elections, consumer, travel, housing, accommodation and employment was also found to be key in this study and in the study done by Williamson et al (2000).

In addition to the information needs that they share with everyone else, the findings above also concur with the findings of Moore (2000) that persons with blindness and visual impairment requires other types of information:

- that relates to their position as disabled people.
- about specific rights and entitlements open to disabled people
- that would support their political consciousness as disabled people
- that relates specifically to their status as visually impaired people i.e. information about their condition, the aids, equipment and services that are available, as well as self-help groups

3.4 Formats in which persons with blindness and visual impairment access information

Table 4 shows the formats in which persons with blindness and visual impairment access information. 30 percent of persons with blindness and visual impairment access information in audio cassette tapes, 40 percent in oral format, 20 percent in print format and 10 percent in electronic format.

Table 4: Format in which persons with blindness and visual impairment access information

Format	Frequency	Percentage
Cassette tapes	20	30
Oral	15	40
Print	10	20
Electronic	5	10
Others	0	0
Total	50	100

The findings summarized above seem to confirm earlier findings in the studies such as Moore (2000) that persons with blindness and visual impairment face more challenges than most when meeting their information needs as they are constrained in the range of formats that they can use in order to access the information. The findings show that the most preferred format of accessing information is oral. The reasons for the choice of audio format according to the findings include ease of access given that most of persons with blindness and visual impairment have hearing ability that allows them to easily get information. In addition, the oral is also preferred because they are able to get the information through face to face talk unlike when using print format. With print format it becomes a little bit difficult for them to get information because they may need someone to read for them, or the information may be delivered late. In addition, information may be out dated by the time it reaches persons with

blindness and visual impairment since there may be need to translate print information into Braille (Edwards & Lewis, 1998). Kavanagh and Skold (2005) also observed that there are few books available in accessible formats for persons with blindness and visual impairment. Edwards and Lewis (1998) further amplifies that access to the printed materials is a significant barrier to the integration of persons with blindness and visual impairment into school and work environments. The blind have to often depend on other people if they are to use printed materials (Luxton, 1990).

Moore (2000) observed that cassette tapes are more popular compared to Braille because it is cheap and easy to record information and can be run back and forth. According to the findings, the less preference for electronic format is due to the fact that persons with blindness and visual impairment find the format less friendly. It requires some special skills. Nonetheless, Astbrink (1996) observed that persons with blindness and visual impairment require information to be in their favorite formats based on their personal circumstances such as eyesight, onset of vision impairment, living arrangements, age and level of literacy and nature of the material or information to be accessed.

3.5 Sources or channels of information for persons with blindness and visual impairment

With respect to where persons with blindness and visual impairment find the information they require, the analysis from table 5 below shows that 40% of the respondents indicated that family members were their main source of information, 16% indicated the mass media, 30% friends, 4% Internet and 10% libraries and information centers.

Table 5: Sources of information for persons with blindness and visual impairment

Source	Frequency	Percentage
Family members	20	40
Mass media e.g. radio, television	8	16
Friends	15	30
Internet	2	4
Libraries & information centers	5	10
Others	0	0
Total	50	100

The findings differ sharply from those obtained by Brockmejer (1992); Tucker (2007) and Balini (2000) whose findings suggest that the most frequently used information source by persons with blindness and visual impairment is the library. It is clear from the findings that the common sources used by persons with blindness and visual impairment to access information are family members and friends. The major reasons for the choice of the sources of information advanced by the respondents are easy access to latest or required information, readily available and accessible information, less costly, dependable, efficiency of source of information, easy to understand the information and access up-to-date information. These findings concur with Williamson (1998) whose study revealed that the most used source of information by persons with blindness and visual impairment for everyday life (i.e. health, income and finance, recreation, government, travel and consumer) is family members and friends. In addition, the studies done by Chen & Hernon (1982); Warner *et al* (1973) concluded that it is common in all studies, regardless of the age groups involved that

interpersonal sources such as families and friends emerge ahead of other sources (particularly newspapers, television and radio), with institutional sources such as libraries and information centres less frequently used. Affirming the difficulties persons with blindness and visual impairment experience to access and use information in print, Williamson et al (2000) amplifies that access to printed material from libraries and information centres for someone who is blind or sight impaired is mediated through others, such as a family member, a helper, or an organization. While Braille is the only commonly used language for persons with blindness and visual impairment, it is not the most common form of communication since a small percentage of the printed information in the world is available on Braille. The information may often be out-of-date by the time it is made available and is expensive to convert into more accessible formats.

Moore (2000) argues that mass media particularly radio is of great importance to persons with blindness and visual impairment. This is so because they are an important source of information. They have the ability to provide specific information directed to their needs. Moore further argues that radio and television can enable persons with blindness and visual impairment to not only absorb a great deal of information clearly but also keep them in touch with what is going on.

From the findings, it is disappointing that the majority of persons with blindness and visual impairment do not use Internet to access information. Yet as noted by a number of ICT commentators, the Internet has developed into an information superhighway where much more good and useful including 'hard to find' and sensitive information can be accessed with greater privacy including text, sound, images, voice and moving pictures, (Morna and Khan, 2000) in all subject areas. According to Williamson et al (2001), new technologies such as Internet and other online services open up windows of opportunity for everyone to participate in the new information age, and that there are particular benefits and potentialities for people with disabilities. Internet has the potential to expand the opportunities for communication and information acquisition for persons with blindness and visual impairment. For people in rural or remote areas, where distance often exacerbates the isolation associated with disability, there can be particular benefits (Wolstenholme & Stanzel, 1997). With the World Wide Web, blind people can browse information for the first time without requiring assistance in the form of reading on their behalf or the provision of alternative formats, with the subsequent delays that this entails. As in the words of the Royal National Institute for the Blind (1998) in the U K "the Internet is one of the most significant developments since the invention of Braille... [because] for the first time ever many blind and partially sighted people have access to the same wealth of information as sighted people and on the same terms." Williamson et al (2001) quotes the words of the inventor of the WWW, Tim Berners-Lee, who says "the power of the Web is in its universality. Access by everyone regardless of disability is an essential part". It is in this vein that persons with blindness and visual impairment should not miss out the opportunity to utilize this technology to access information relevant to their lives and improve their standard of living.

3.6 Barriers to information access and use

Persons with blindness and visual impairment identified a number of barriers to access and use information (Table 6). The major barrier to access and use information is lack of skills (76%), followed by distance (72%). 70% of the respondents stated they face the problem of illiteracy and 64% indicated the lack of assistance from the community to get the needed information. Sixty-two percent of the respondents perceive the issue of discrimination and 58% of the respondents

reported problems with cost, inadequate libraries & information centers with suitable facilities (52%), inadequate equipment (30%) and age (20%).

Table 6: Barriers to information access and use

Barrier	Frequency	Percentage
Inadequate equipment	15	30
Cost	29	58
Illiteracy	35	70
Age	10	20
Inadequate libraries & information centers with suitable facilities	26	52
Lack of skills	38	76
Distance	36	72
Discrimination	31	62
Lack of assistance from the community to get the needed information	32	64

Multiple response question

Effective and innovative use of information requires information literacy skills, ICT skills, literacy and language (Mulauzi and Albright, 2009). Information literacy pertains to the ability to recognise the need for information, and the skills to locate, evaluate, access, communicate and use information in varied contexts. Persons with blindness and visual impairment often lack this skill including the skill to use ICTs such as Internet (Primo, 2003). Kirkup (2002: 11) states that “access to information is a useless resource if you don’t have the skills to evaluate and use it”. Literacy also plays an indispensable role in enabling access and use of technology and information. Literacy is a basic tool for communication and learning, for acquiring, sharing and exchanging information and knowledge (Batra and Grove, 1994). It creates quest for information, self learning and understanding, thereby generating the demand for information and communication services.

Further, inadequate libraries & information centers with suitable facilities and also lack of assistive technologies or equipment are some of the barriers faced by persons with blindness and visual impairment to access and use information. The Zambia National Library and Cultural centre for the blind run by the Government of the Republic of Zambia is the only

library in Lusaka which caters for the information needs of persons with blindness and visual impairment. However, the library is inadequately equipped to accommodate the information needs of persons with blindness and visual impairment in terms of assistive technologies and availability of materials in Braille.

Previous studies also reveal that persons with blindness and visual impairment face the problem of cost (Williamson et al, 2000) and lack of finances (Sinks & King, 1998). Many of persons with blindness and visual impairment lack disposable income to pay for information access on the Internet as well as in libraries and information centers. Additionally, Williamson et al (2001) observed that many people who are blind or visually impaired are older and not in employment and therefore, their budgets cannot meet the cost of costs of a computer, Internet access as well as purchase of adaptive equipment such as computers with JAWs that provide specialized services.

The study conducted by Williamson et al (2001) also reveals that persons with blindness and visual impairment face technological challenges such as lack of confidence in being able to use a computer without vision and reluctance to change familiar ways of doing things. In addition, Williamson et al also observed that funding for all areas of support for persons with blindness and visual impairment is limited, and training people in the use of online technology is often not a high priority. Furthermore, equity of access to computer and online training for urban and rural persons with blindness and visual impairment is yet to be achieved.

Additionally, the respondents lamented the lack of library and information facilities nearby. In most cases, distance deter them from visiting these institutions to access information as they depend on others for assistance because it is difficult for them to move without assistance. In most cases, they hardly find assistance to be taken to these centers and therefore, remain uninformed on many issues affecting their lives.

Other studies further revealed the problem of inadequate materials in Braille (Williamson et al, 2001), age (Royal Blind Society of NSW, 1996) and discrimination.

4.0 Conclusion

The findings of this study show that persons with blindness and visual impairment have information needs similar to those people who lead normal lives. Their information needs include information on topics such as health, education, income, agriculture, finance e.g. access to loan facilities, recreation, government (i.e. information on elections, housing and accommodation, travel and employment) and legal. Additionally, persons with blindness and visual impairment have additional information needs that are particular to them as persons with blindness and visual impairment such information on their position as disabled people, rights and entitlements, political consciousness and coping with life situations i.e. information about their condition, the aids, equipment and services that are available, as well as self-help groups

The findings also suggest that family members and friends are the most preferred sources of information to meet their information needs followed by mass media. According to the findings, the preferred choice of sources provide easy access to latest or required information, are readily available and accessible, less costly, dependable, efficiency in providing information, easy to understand and provide up-to-date information. Persons with blindness and visual impairment in this study access information in oral as well as in other formats. Many access information in oral format.

In regard to barriers to information access and use, the majority of the participants face inadequate equipment, cost, illiteracy, age, inadequate libraries & information centers with suitable facilities, lack of skills, distance, discrimination, and lack of assistance from the community to get the needed information. Of these barriers, lack of skills, distance, illiteracy was most commonly reported, followed lack of assistance from the community to get the needed information, discrimination, inadequate libraries & information centers with suitable facilities, cost, inadequate equipment and age.

5.0 Recommendations

1. There is need for information providers to design strategies for persons with blindness and visual impairment to meet their information needs so that they can participate equitably in the information society.
2. Information providers should consider investing in technologies that are voice based as a way of eliminating the illiteracy which poses as a barrier to information access and use.
3. There is need for information providers to design products and environments that can be used by all people to the greatest extent possible
4. There is need for information providers to provide information available in accessible formats to persons with blindness and visual impairment

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