Independent mobility of people with visual impairment in the Central Business District of Harare: The physical threats, risks and hazards

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Abstract

The study sought to interrogate the nature of mobility difficulties experienced by people with visual impairment in the central business district of Harare. It also sought to determine the extent to which these difficulties negatively impacted on the independent mobility of people with visual impairment. Independent mobility for people with visual impairment in Harare is threatened by a number of obstacles. The study used a qualitative paradigm. The interpretive design was used in line with the paradigm selected. Interviews were used to gather data for this study. Opportunity sampling was deemed the best due to the nature of the study. The study found out that several dangers confronted people with visual impairment by way of pot holes, broken pavements, open drainage systems, and food stalls along the streets. Vendors selling various wares on shop verandas and pavements, vehicles parked in undesignated areas were also a serious challenge. It was also found out that people with visual impairment themselves also had poor mobility skills. Absence of comprehensive by laws and lack of awareness and proper information dissemination strategies were also found out to be some of the challenges. The study recommended that city authorities should put in place stringent by laws to enhance effective independent mobility in the city. People with visual impairment needed proper mobility skills in order to move around in town. The use of modern technology such as laser canes was also recommended as a strategy to ease the mobility difficulties faced by people with visual impairment in the city.

Key words: Visual impairment, independent mobility, physical threats, risks, hazards and central business district

Introduction

The ability to move around independently and freely is often taken for granted by many sighted people. By virtue of limited sight or no sight at all people with visual impairment cannot afford this luxury. All the same, they have to partake in routine visits into the city. This may be necessitated by the need to settle utility bills, visit relatives, replenish good supplies, as well as visit health centres for medical attention. In doing this they have to manoeuvre their way through the busy streets of Harare. The same streets have open pits left behind by either city council workers, Telone or ZESA workers. These pits may have been necessitated by the need to repair burst water pipes, worn out underground electricity cables or other repairs. This provides a high risk and threat to the mobility of people with visual impairment. Information on changes in the environment for example digging of trenches is not communicated to people with disabilities (Chiparaushe, Mapako and Makarau, 2013)

Background to the study

A closer look of the Central Business District of Harare exposes one to a number of physical threats, risks and hazards. The situation is worse for people with visual
impairment. These threats and risks are also a serious danger even to the sighted people. These dangers are in the form of narrow doorways, open manholes, lack of elevators, pot holes, open electric cables without insulation, pieces of broken pavements, unpaved sidewalks or poorly maintained sidewalks, open drainages, open incomplete plumbing jobs and absence of rumps. Parking in undesignated areas is rampant. In some instances, there is ongoing construction work with tools such as wheelbarrows, shovels, roofing timber etc. lying everywhere indiscriminately. One can imagine the challenges this presents to someone with low vision or no vision at all.

*At the time this study was carried out the following physical threats and risks were noted in the areas indicated.

**Physical risks and threats in the Harare CBD**

**Nature of threat or risk physical location**

(a) Parking at undesignated places, combis and private vehicles. -Areas along fifth street, Kaguvi street, Corner Robert Mugabe, and Julius Nyerere. Corner George Silundika Copacabana.

(b) Food stalls in the streets. -Market Square area, Charge Office, Road port area and so on.

(c) Flea markets dotted around the city-Copacabana, Charge Office, Fourth Street Bus terminus.

(d) Traffic congestion - Copacabana area, Fourth street Bus terminus, Charge Office Bus terminus, Market Square Bus terminus.

(e) Open manholes -Back of Angwa City.- Corner Nelson Mandela and First street.

(f) Open drains, poor drainage systems. - Corner Nelson Mandela and First street.- Corner Julius Nyerere and Samora Machel (in front of Throgmoton House)

(g) Open pits-Corner Robson Manyika and Inez Terrace.

(h) Burst water pipes -Corner First street and Kwame Nkrumah

(i) Vehichles parked in the middle of the roads. -Kaguvi Street.

(j) Robots that were not working.

(k) Vendors selling various wares along and on the streets. -Charge Office Bus terminus, Market Square Bus terminus, Copacabana, Fourth Street Bus terminus.

(l) Motorists who break traffic rules eg. Going through red robots, lack of respect for pedestrian crossing places. -Crossing places.

(m) Pot holes -Corner First and Nelson Mandela.

(n) Hanging electric cables

(o) Unpaved sidewalks.

(p) Poorly maintained roads. A number of the roads leading out of the CBD.

(q) No sounds at street crossing places. - All crossing places, robots in the city

(r) Broken pavements. -Front of Angwa City.-Front of Corner House along Samora Machel in front of shops, infront of Shons Financial Services along Samora Machel Street, Total Service Station along Samora Machel Street.

Heavy traffic also prohibits people with visual impairment from independent mobility. The H-Metro of 28 April 2016 carried a report entitled “Kombis Block CBD shops.” In the article reporter Nyasha Kada raises concern at what was happening at the corner of Julius Nyerere and Robson Manyika Street, the disturbing behaviour of commuter omnibus drivers operating at Corner Speke Avenue and Mbuya Nehanda Street where combis were being parked in the pavements in front of shops disturbing people who wish to get into the shops. One shop owner had this to say:

“They come and park right in front of the doorway and how do they expect our customers to come in and do business with us”.
If the mobility of seeing people was being interfered with to this extent, the situation was obviously worse for people with visual impairment. Some of them will be using their white canes to identify obstacles and with combis right on the pavements which they are supposed to use for their smooth mobility, the situation becomes unbearable.

The risk of falling down and being injured is very high. The open drainage pits, trenches and holes present real challenges that can result in serious injury or even death. People with Visual impairment cannot access communication on impending hazards in their way. They do not see these signs and noone makes any effort to communicate this information on changes in the environment to them. In the CBD cars parked in pedestrian pathways are not an unusual feature.

Other hazards and risks are presented by unpaved sidewalks, crowdedness in the streets and congestion caused by vendors, as well as poorly maintained roads. Heavy traffic makes it difficult for people with visual impairments to make journeys safely on foot.

Barriers to the mobility of people with visual impairment in urban environments are not peculiar to Harare alone. Human Rights Watch (2013) shows that in Russia, in June 2012, Denis, a 25-year-old man fell from commuter train platforms and broke his hand. The same report also shows that participants indicated that when they submitted written or oral complaints to government, regarding accessibility to infrastructure or services, they received either no response or written notice.

People with visual impairment were not allowed sufficient time to board or disembark from public transport (Venter, Rickent, Bogopane, Camba, Savill, Venkantesh, Stone, Mulikita and Mauder (undated)(www.uncl.ac.uk). Vehicle and infrastructure designs were also a major stumbling block to the mobility of people with visual impairment. The attitudes and behaviour of public vehicle drivers were not helping the situation either. The behaviour of drivers of combis in particular were characterised by wanton disregard for traffic rules which did not pay any regard whatsoever to the independent mobility of people with visual impairment. Driving attitudes of combi drivers in Harare were shocking to say the least.

The situation was aggravated by the lack of training in helping people with visual impairment and indeed other people with disabilities on how to manoeuvre their way in the dangerous streets of the city. Information and Public awareness on how to assist people with visual impairment attain independent mobility was too conspicuous by its absence.

Against this background, the researcher sought to find out and expose the risks, dangers and hazards faced by people with visual impairment in realising independent mobility in the Central Business District. The study also sought to make possible recommendations or strategies on what could be done to address this anomaly.

Review of related literature

Challenges of independent mobility

Moving around in town on your own may appear trivial, but for someone without vision or with low vision, this is a critical skill which has to be learnt gradually. For individuals with visual impairment the ability to move around on their own is called independent mobility. Independent mobility is fraught with numerous physical risks, threats and hazards in the Central Business District of Harare. According to the IMAGO Project Information (2016) a journey across the city requires a range of skills mainly to do with ability to avoid obstacles on pavements, to walk in the right direction, to safely cross the road, and to know when you have reached your destination for example, your work place or bus stop.
Due to the physical risks, threats and dangers that go with independent mobility, many individuals with visual impairment are scared to go out and enjoy mobility on their own. Independent travel can indeed be a daunting experience if you have a visual impairment. (Royal National Institute of the Blind (RVIB) 2013). Staying safe when crossing roads for example can be an uphill task and yet, travel is an essential part of everyday life, enabling one to visit friends, colleagues, family, go to work, exercise or just for the fun of it. Poor mobility techniques have exposed people with visual impairment to experiences where they end up with abdominal and or head injuries.

A study by Saksham Trust (2015) in India aimed at establishing some of the challenges of mobility faced by people with visual impairment also exposed the following as some of the problems.

- The possibility of physical injury
- Stress and anxiety
- Frustration
- Negative impact on work or study.
- White canes which are not electronic.
- The need to always ask for help on the part of people with visual impairment.
- Help that is never forthcoming.
- People who promise to help, but eventually leave without doing so.
- Unreliable sighted guides.

The major challenge with sighted guides is that it also creates too much dependence on the part of the person assisted to the extent that in the event of the guide being overwhelmed with other commitments or responsibilities, this results in the individual with visual impairment cancelling his own appointments instead. Another challenge with the sighted guide is that it lowers the self-esteem and confidence of the individual with visual impairment due to overdependence. This compromises privacy and confidentiality in the long run.

Heavy traffic is also largely to blame for prohibiting individuals with visual impairment from making journeys safely on foot.

Accessing communication on hazards in the roads has been another drawback since people with visual impairment do not access information in the same way as the sighted.

**Benefits of independent mobility for people with visual impairment**

Independent mobility plays a pivotal role in the lives of people with visual impairment. It is through moving in the environment, that understanding of the world is developed. If the visually impaired move independently, their world expands and they are exposed to a far wider range of real experiences. (RNIB 2014) This obviously feeds into a broader understanding and development of learning in terms of aspects like language and understanding of concepts. There are a number of other social opportunities that accrue to people with visual impairment and these may include the following among others: climbing on play equipment with confidence, especially for young children with visual impairment) running freely, meeting friends, going to the local sport and recreational facilities, going to the shops, clinic, work and others.

People with visual impairment do not learn daily living skills from modelling from other people or watching this from television screens. Mobility is critical to maximising independence in spite of age, or existence of other disabilities. (Texas School for The Blind 2015). Independent mobility affords people with visual impairment some measure to exercising free choice and self-direction. The visual environment is indeed an important stimulus in motivating individuals with visual impairment to explore and investigate through route familiarisation (RNIB, 2014).

Feeling safe in the environment is yet another benefit of independent mobility. This also goes hand in hand with reducing isolation on the part of people with visual impairment. Mobility basically entails getting there safely.
and efficiently. Texas School for The Blind (2015). The incidental sharing of experiences is another advantage that comes with independent mobility. Through independent mobility individuals with visual impairment get to meet other people they may not know. In the process various subjects or issues can come up for discussion and they share experiences. This can take place at religious gatherings, political gatherings, institutions of learning, health centres and other community and public gatherings. Academic debates can also be a source of interactive learning on the part of individuals with visual impairment wherever they can grab this opportunity.

Bar talk can prove to be a critical and inspiring source of interactive learning. Travelling on public transport can be so educative and assuring as well. All these benefits can be accessed through effective independent mobility.

Independent mobility enables people with visual impairment to carry out their own private errands on their own without the risk of other people, friends or other people, friends or other associates unnecessarily poking their nose into what could be going on. Dependence on other people to help, reduces the level of privacy and this can come with its own costs, that negatively impact on people with visual impairment.

Strategies to deal with mobility challenges

**Advocacy and planning**

One of the ways though which the challenge of mobility can be addressed is through effective advocacy and planning strategies. According to Venter, Bogopare, Ricket, Camba, Venkatesh and Mulikite (2000) in Latin America, non-governmental organisations involved in advocacy work of disability issues for example Mexico’s Libree Association and Rio De Janeiro’s Center for Independent Living fulfill a watchdog role by actively campaigning for change, and promoting the interests of people with disabilities (PWD). Non-governmental organisations and other agencies should also be involved in the preparation of guidelines that promote access to buildings and transport services.

In India an improvement was noted in the area of attitudes mainly from pitying people with disabilities to embracing rights based approaches. This was observed especially from the time The Persons with Disabilities Act of (1995) was promulgated.

In South Africa, they have an office on the status of PWD based in The President’s office. This office is involved in advocacy work mainly to do with people with disabilities.

In Malawi, they have a Cabinet Level Ministry responsible for Disability Affairs (Venter et al 2000). Mexico also has an office in charge of the promotion and social Integration of people with disabilities. This office has a mandate to promote and facilitate awareness of disability matters at government level.

**Transport services**

In Africa and India mobility issues for people with visual impairment focus on accessible service options and infrastructure features or mobility aids provided mainly by private or welfare sectors (Ibid). Provision of curb rumps to sidewalks have also been put up in a number of cities courtesy of the World Bank’s increasing focus on improving infrastructure for non-motorised transport modes. Venter et al (2000) however acknowledge that misconceptions and the lack of knowledge on how to facilitate communication with people with visual impairment remained a challenge.

**Policy and legislation**

India has taken advantage of policy and legislative provisions to improve the mobility challenges of people with visual impairment. One piece of such legislation they have used
is the Protection of Rights and Full Participation Act of 1995 (Stanbury and Hugo, 2000). The Act provides for provision of facilities at road crossing points and non-road transport. In Argentina or Costa Rica laws meant to benefit people with visual impairment are supported by clearly comprehensive regulatory frameworks (First, 2000).

Another area of concern that needed concerted effort was the need for solid barriers with construction fences especially at Construction sites. Architects also needed to take into account considerations of the needs of people with visual impairment at design stage. There was also need for specialised courses to train all people involved with disability issues such as drivers, planners and other staff members. (First 2000). Publicity of critical information was also vital. Research and development also needed to be inclusive of all people who have knowledge about people with visual impairment. Public awareness needs to improve from its present status.

**Statement of the problem**

People with visual impairment face numerous man made mobility obstacles when travelling in the Central Business District of Harare.

**Research questions**

1. What are the mobility challenges encountered by people with visual impairment in the CBD?
2. What strategies can be employed to deal with the problem of mobility challenges for people with visual impairment?
3. To what extent do people with visual impairment benefit from independent mobility?

**Significance of the study**

This study will be of immense relevance and importance to the city fathers. First and foremost, they will be made aware of the physical risks, threats and hazards that confront people with visual impairment in their mobility in the city centre. City fathers and other stakeholders will also be exposed to strategies that can be employed to address the problems studied. City authorities will also need to revisit supervisory strategies so that employees do not just leave open drains, manholes and pits open. Some of the recommendations can be considered for implementation. In addition, since this study appears to be the first known attempt at looking at physical challenges of mobility for people with visual impairment in the city of Harare, the findings can be used as a launch pad to inform future researches on related issues.

**Methodology**

This study was informed by the qualitative paradigm. It employed the interpretive design. The qualitative paradigm was the best because of the nature of the enquiry. Qualitative research recognised that meaning emerged from interaction and was therefore not standardised from person to person as in quantitative research (Merriam 1998). Qualitative research enabled the researcher to maintain focus on specific issues without predetermined categorised analysis. Qualitative research entails an interpretive and naturalistic approach to its subject matter (Denzin and Lincoln and Guba (2000). Creswell (2006) argued that qualitative research facilitated improved understanding of social or human problems, based on building a complex, holistic picture emanating from words, thereby reporting detailed views of informants. This study was carried out in a natural setting.
Research design

This study made use of the interpretive research design. The interpretive design primarily focuses on analytically reflecting on meaning making practices. Philosophical orientation or type of knowledge one is seeking guides the choice of the design, research methods and sampling techniques as well as data gathering strategies. (Munemo 2015). A research design is therefore a plan of action which brings together the philosophical foundations and methodological assumptions of a research approach to its research methods. According to Tichapondwa (2013) the major characteristics of this design which the researcher took advantage of entail that words were the basic element if analysis, it was subjective, it focused on individual interpretation, it has shared interpretation and that it is the basis of knowing meaning and discovery. The researcher therefore played a key role in influencing the decision to use the interpretive design as informed by the qualitative paradigm. Interpretive research is distinctive in its approach to research design, concept formation, data analysis and standards of assessment. (Flick, 2007)

Target population

The target population of the study was people with visual impairment who travel in the streets of the Central Business District of Harare.

Sample and sampling procedure

The study mainly made use of opportunity sampling. Seventeen visually impaired people were sampled. Nine were male and eight were female. This is a non-probability type of sampling which involves selecting participants based on naturally occurring groups. It uses people who might be easily available and willing to take part, based on convenience. Opportunity sampling is normally used to study hard to come by groups of people. People with visual impairment are not easily available or concentrated in one place hence the researcher opted for opportunity sampling. Opportunity sampling is less time consuming, handy and cheaper compared to other sampling procedures. One of its limitations is that it might not always provide a representative sample of the target population.

Data gathering methods and procedures

Both primary and secondary data gathering procedures were used. The two have comparative advantages and disadvantages hence they were both used in this study.

Primary data

Primary data were essentially gathered using unstructured interview questions as well as observations. Primary methods of data gathering were opted for because they produce first-hand information.

Interviews

Interviews can either be structured or unstructured. For purposes of this study interviews were carried out with people with visual impairment who normally travel in the Central Business District for personal or business purposes. Appointments were made in advance to either visit the participants at their homes or at the places where they do their business in town. Basically interviews entail generating data through face to face interactions with participants. Creswell (2006) shows that interviews are an interactive data gathering instrument composed of a set of questions targeted at respondents or participants. Respondents identified for an interview must have had certain experiences that enhanced
in-depth understanding of the problem under investigation. (Borg and Gall 1996). Patton (1990) also demonstrates that the purpose of interviewing is to find out what is in the mind of a person. Both open ended and closed questions were used. Open ended questions were used because they are explorative. Close ended questions were also used selectively on issues that did not require elaboration. Rapport was established first in order to make the environment friendly for discussion. The researcher capitalised a lot on these strengths of using interviews by analysing words and seeking classification on a number of critical issues.

The interviews had to be face to face to allow for room to probe, clarify some questions as well as observe non-verbal cues. Holloway (1997) however cautions that face to face interviews can present challenges in that some participants or respondents may not be comfortable to discuss sensitive issues. In other cases, the interviewer may focus more on what he/she deems to be important. There is also the risk of the interviewer asking leading questions resulting in what is generally known as interviewer bias. Power relations can also shift and act as a barrier between the interviewee and the interviewer. The researcher managed these limitations through creating rapport with participants and focusing and adhering to the ethical guidelines and rules of research.

Secondary data collection methods/sources

The researcher took time to review a number of Key documents. Some of these were: The Urban Councils Act, The New Constitution, The Disabled Persons Act (1992) as well as other relevant policy documents. The Convention On the Rights of People with Disabilities was also examined thoroughly. Documentary analysis was critical for purposes of this study. The above referred key documents were reviewed to ascertain past, existing and potential gaps and links that needed to be attended to. On its own secondary data may not provide much or be adequate. This is because on one hand, secondary data may rely on existing information that has already been analysed. It is also to deal with or manage the biases and weaknesses introduced by initial researchers. In addition, the information may not really relate to the topic under study now. It is however, important to bear in mind that secondary data gathering methods and procedures complement primary data gathering methods.

In an attempt to achieve trustworthiness and authenticity, two techniques were utilised to help in establishing credibility of the study. Triangulation and member checking were mainly used to achieve credibility. Triangulation was attained through asking similar questions to participants during the face to face interviews. According to Bryman (2004) member checking involves giving research material relevant to a study for checking by people who were the source of those materials. Other participants were therefore asked to review the data gathered from the participants.

Findings and discussion

Physical dangers

The study established that there were several physical dangers that confront people with visual impairment in the Central Business District. These were in the form of pot holes, open drainage pipes, manholes left exposed by municipal and other workers, open holes on pavements, vehicles parked in undesignated areas malfunctioning robots, and other obstacles in the busy streets of the city. This seemingly uncaring attitude and insensitivity can be explained by a lack of concern for the safety of people with visual impairment on the part of city fathers. This lack of concern was also confirmed a few years back when a man lost his life when he
slipped into a drainage system and drowned in the process. This case was reported on widely in both the electronic and print media in Zimbabwe. Another explanation could be the lack of effective supervision on the part of employees of state entities like ZESA, Tel One as well as the city council itself. Lack of supervision resulted in these workers leaving open pits with no warning signs. This laxity in supervision can also be accounted for by the lack of municipal by-laws that make it mandatory for negligent workers to account for what goes wrong after leaving these open pits. The IMAGO Project (2016) concurs with the findings of this study, when it pointed out that people with visual impairment were exposed to dangerous situations frequently causing abdominal and head injuries. The report also went further and indicated that most people with visual impairment did not want to go out and enjoy independent mobility because of the challenges that they faced. The CRPD (2006) also indicated that PWD should have equal access to transport, the physical environment, information and communications.

**Lack of disability friendly orientation on part of authorities**

The study also revealed that there was a clear lack of proper orientation on mobility needs of people with visual impairment on the part of the local authority and state entities such as ZESA, and Tel One. This was evidenced by the several open pits, manholes, damaged pavements and other physical threats scattered all over the Central Business District. These open hazards were not only a danger to people with visual impairment. The situation was worsened by the absence of inclusive design and strategies to make business accessible. The absence of a disability desk at the City Council and state entities identified above could also account for this laxity in making the pavements user friendly for people with visual impairment. Had there been personnel or a unit that had a mandate to deal with disability issues, such threats to mobility could have been timeously avoided. Another issue could be mere resistance to improving access to the movement of people with visual impairment on the part of the authorities. A workshop of the United Nations Habitat for A Better Urban Future held in Nairobi – Kenya from 28 to 30 October 2015 also alluded to the fact that resistance to access was supported by erroneous information about cost and incidence of disability. In addition, The Royal National Institute of the Blind (2014) also concurred that independent travel can be a challenge for people with visual impairment if urban authorities take things for granted.

**Absence of comprehensive policies and bylaws**

The absence of effective city council by-laws related to the dangers of open manholes, open pits, unpaved sidewalks, availability of rumps and elevators, crowdedness caused by vending activities, poorly maintained roads and potholes has only aggravated the problem. This scenario could be accounted for by the fact that city fathers had no clue whatsoever of the mobility needs of an important part of the constituency they purport to represent. This can also be accounted for by the issue of negative attitudes on disability issues on the part of city fathers and society in general. People with disabilities have perpetually been exposed to unwarranted discrimination and being looked down upon as second class citizens, hence the lack of critical services. People with visual impairment have also been widely regarded as a minority group hence the second class citizen status. Allocation of resources to them has therefore not been regarded with the seriousness and magnitude it deserves. Accessing communication on hazards in the road has therefore remained a pipe dream for people with visual impairment.
and yet these are aspects that could have been catered for through City Council by-laws. The absence of by-laws has therefore largely contributed to poor service delivery by authorities. This finding was also confirmed in a study by Human Rights Watch (2013) when it alluded to the fact that they were dismayed that after submission of written or oral complaints to authorities pertaining to inaccessibility to infrastructure or services they did not receive any response.

**Supervision of city council and other state entities’ employees**

A notable lapse in supervision of employees of the City Council and other state entities was exposed. This was largely responsible for the pot holes in the city, manholes and trenches left open with no warning signs, unpaved sidewalks, potholes and poorly maintained roads. Open trenches and pits were left unattended for weeks with no warning signs not even the barest minimum in terms of warning. Regrettably in a few cases where warning signs were noted, the warning signs which may be there were not really meant to include travellers with visual impairment but for the sighted. Supervisors of employees responsible for such services should be on the lookout for these dangers. Another dimension could be that the supervisors themselves also lacked basic orientation on the risks of open drainage risks. In such cases aggressive public awareness education will be called for as a corrective measure. Negligence and negative attitudes on the part of supervisors cannot be ruled out completely. Common sense should tell anybody in his right senses of the impending danger emanating from open trenches, pot holes, free for all vending sites, lack of rumps as well as malfunctioning elevators or no elevators at all, narrow doorways, malfunctioning robots and parking in undesignated areas. City parking personnel were also vulnerable to corruption through receiving bribes thereby ignoring the flouting of parking rules and regulations. The American Foundation for The Blind (2011) also underscores the importance of safe and independent mobility as opposed to the status quo.

**Lack of awareness on disability issues**

The study found out that there was a huge gap on the part of city authorities regarding awareness of disability issues. The absence of personnel that is qualified in the area of disability could have a lot to do with poor decision making on disability issues at the City Council. Normally these issues fall under the social services unit, but it appears there could be no one qualified in the area as well. In these circumstances it will be difficult for issues to do with people with visual impairment to be attended to promptly and precisely in order to yield far reaching benefits. City authorities may not be absolutely to blame for the lack of action in this regard. This is because Advocacy groups of people with disabilities should also take it upon themselves to educate the City fathers on the urgency and importance of providing for such services and facilities. The public also needs to be educated in order to influence community action groups such as the Greater Residents Association. The Residents Association should also influence decision making in the City Council through the routine meetings they hold from time to time. This finding was in agreement with Human Rights Watch (2013) which called for the need for integrated approach to accessibility and meaningful reforms to transportation matters regarding people with visual impairment.

**Effective mobility skills**

It was also found out that city authorities may not be absolutely to blame for all the problems of mobility for people with visual impairment.
People with visual impairment also need to play their part by having effective mobility skills. The environment was increasingly becoming more complex, hence the need for up to date mobility skills. The need to use appropriate mobility techniques with the aid of long canes or other mobility tools cannot be overemphasised. If affordable, use of an I-cane which is an electronic device that identifies obstacles and relays the warning to the user would be ideal. Ineffective mobility skills can also be blamed on instruction from personnel who are inadequately trained in mobility and orientation. Lack of confidence on the part of people with visual impairment also leaves a lot to be desired. This finding agrees with the IMAGO Project Information (2016) which alludes to the fact that a journey across the city required a range of skills such as ability to avoid obstacles on pavements, walking in the right direction, crossing the road safely and knowing when you have reached your destination. The American Foundation of the Blind (2016) also expressed the worry that people with visual impairment received instruction from personnel who are not qualified to teach mobility and orientation.

**Mode of information dissemination**

Dissemination of information to alert people with visual impairment of the impending physical dangers on the streets is not being done. This was mainly because of erroneous assumptions that people with visual impairment access information in the same way as those with sight. While for the sighted information is presented in ordinary print, individuals with visual impairment may need Braille, enlarged print or other formats. To worsen matters Braille resources are hard to come by because of prohibitive costs. Investment on such resources is hardly prioritised by local authorities and other state and private entities that share responsibility for the easy movement of people with visual impairment from one place to the other. Such anomalies have largely accounted for the short changing of people with visual impairment resulting in serious injuries or death in some cases. The IMAGO Project Information (2016) also confirmed that industry had not yet delivered an effective solution for blind and visually impaired people to avoid obstacles.

**Recommendations**

The following recommendations were deemed consistent with the findings.

- City authorities need to put in place a consultative process aimed at coming up with effective by-laws to address the problems of mobility faced by people with visual impairment in the CBD.
- City authorities may also need to strongly consider strengthening their social services unit by engaging someone qualified in the area of disability or seeking consultative services.
- City fathers also need to include in their by-laws clauses to do with inclusive design of urban spaces in terms mobility of people with visual impairment.
- Robots should accommodate people with visual impairment eg. robots that make specific sounds to signal to individuals with visual impairment to cross safely.
- The City authorities also need to effectively deal with lawlessness in the CBD eg. parking in undesignated areas, vendors who sell from the streets, open trenches, as well as motorists who do not respect traffic regulations.
- People with visual impairment also need proper training in mobility techniques in order for them to manoeuvre their way in the CBD.
- Where possible and affordable people with visual impairment may need to explore use of modern technology such
as use of the electronic I-Cane mobilo which can increase self-support and mobility of the individual.

- People with visual impairment also need to redouble their advocacy efforts.

## Conclusion

The study was able to bring to the fore a number of pertinent findings. Key among the findings was the fact that the local authority needs to revisit its by-laws with a view to accommodating the mobility needs people with visual impairment. Another important area was that supervision of council staff also left a lot to be desired. The need for aggressive awareness campaigns was also found out to be a critical area. The mode through which information is disseminated to people with visual impairment also needed to be looked at. On their part people with visual impairment needed to be trained in effective mobility skills as well. Staff that have to do with the welfare of people with visual impairment needed orientation from experts on how to identify and cater for the needs of this group of people.

## References


My Wage @www.nywage.org./Zimbabwe (Accessed 16/07/17).


