



MOBILITY CHALLENGES AND TRANSPORT SAFETY OF PEOPLE WITH DISABILITIES (PWD) IN IBADAN, NIGERIA

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ABSTRACT

Disability is a growing problem worldwide. The challenges facing people with disabilities are being exacerbated by poor and inadequate transport. This paper assessed the mobility challenges and transport safety of disabled people in Ibadan Metropolis. Data were collected from both primary and secondary sources. A structured questionnaire was administered on 388 respondents (crippled and blind) in 2 major motor parks, designated bus stops and road terminals along corridors where people with disabilities are concentrated. Secondary information was sourced from the disabled homes in the state. Descriptive and inferential statistics were used for data analysis. Findings indicated that about 2/3 were male, 72% had no more than primary education and begging was the main source of income. About 90% made only two trips per day, more than 65% spent more than 10 minutes at bus stops and 80% relied on public transport. Road environment and vehicle design were the main mobility challenges and about a half were victims of road crashes. Significant correlation existed among number of trips, sex, educational attainment and income. The paper suggested accessible transport infrastructure, disability awareness training for public transport staff, improved vehicle design and disable-oriented mobility planning in order to meet the access needs of people with disabilities.

INTRODUCTION

Globally, disability is a serious and growing problem. It results from the interactions between persons with impairments, conditions of their illnesses and the environmental and attitudinal barriers they face. Such impairments may be permanent, temporary, intermittent or imputed, and include those that are physical, sensory, psychological, neurological, medical or intellectual (World Bank, 2013).

Currently, about 15% of the world's population is disabled (WHO, 2011). In Europe, between 12 to 14% of the population are disabled while in the United States more than 40 million people are living with various disabilities (UNDP, 2010; National Academies, 2007). The consequences of disability are more pronounced in developing countries, where between 6% and 8% of the people experience a disability, resulting in poorer health conditions, lower education achievements, less economic participation and higher rates of poverty for people with disabilities compared with those without disabilities (WHO, 2011). This is due partly to difficulties in travelling around, which often prevents them from breaking out of poverty.

In view of the foregoing, global organizations and many countries, such as the United States and the United Kingdom, have passed laws prohibiting discrimination against people with disabilities in the areas of government service delivery, physical access and transport. In Nigeria, however, the National Disability Act has been passed to law by the National Assembly in January 2015 but is yet to receive presidential assent. All these documents represented a fundamental shift from traditional medical model of disability to social model which is premised on the individual's right to engage in meaningful social and economic experiences.

Over the years, the growing number of people with disabilities and the mobility challenges they face have generated a lot of interest particularly in developed countries. Studies on transport needs of the disabled people had identified the mobility constraints of this group (Ashford and Bell, 1979; Brattgard, 1979; Venter, Bogopane, Rickert, Camba, Venkatesh, Mulikita, Savill, and Maunder, 2002). In terms of trip characteristics, the disabled made fewer trip per day



compared with non-disabled in London and France (2.09 to 2.72) (TfL, 2012; Dejoux et al, 2010). Walking accounted for 78% of travel mode of the disabled Londoners while shopping, personal business and leisure were responsible for about three quarter of journey purpose. Work trip accounted for 5%.

With respect to the difficulty they face en-route, studies have shown in Wales and England that 41% of the disabled people experienced difficulty with travelling. Twenty five (25) percent experienced difficulties travelling to/from the doctor or hospital, 23% have experienced problems visiting friends or relatives and 18% visiting leisure facilities (DPTAC, 2002). Similarly, 23% of respondents that were actively seeking employment have had to turn down a job offer and a further 23% a job interview, because of inaccessible transport (Campion, Greenhalgh & Knight, 2003). The study also found that 20% of respondents found it difficult or impossible to get to the healthcare they needed, and that 1 in 7 respondents (1 in 5 of those without access to a car) were unable to collect prescriptions as a result of inaccessible transport. Fifty percent (67% without access to a car) of those who did not see their family or friends as often as they would like stated that this was because of inaccessible transport.

The transport challenges faced by people with disabilities in public transportation have also been widely studied. DPTAC (2002) identified staff attitude (driver and conductor) as a major constraint to the use of public transport by people with disabilities. Forty seven percent of the disabled said that they would travel more by public transportation if staff were better trained to deal with their needs. Oxley and Gallon (1995) observed that bus design had influence on the use of public transport. High steps restrict the use of public transport by disabled people. Related to vehicle design is the road environment which has been found to have much stronger influence on the use of public transportation by people with disabilities. Gallon (2000) was of the opinion that vehicle design features and operational changes intended to improve access to fix mainstream bus services, would have limited influence on providing people who cannot get to bus stops access to the services.

Little research has been undertaken into the accidents on public transport involving disabled people. However, Williams, Savill & Wheelers (2002), as quoted in Allen Consulting Group (2009), found some evidence that children with sensory impairments are at increased risk of involvement in road accidents. The risk of fatal pedestrian accidents among adults with learning difficulties appeared to be two or three times greater than among the general population. They concluded that accessible vehicle and pedestrian environment, alongside more coordinated safety training for children should reduce risk. The annual cost of excluding disabled people from public transport in the United Kingdom could be as high as 1 billion pound per year (Carr, Lund, Oxley & Alexandar, 1994). This figure is based on additional costs to the economy of providing health care services at home, special transport to health and social care services and loss in tax revenue from people who are unable to access employment.

In spite of the mobility constraints faced by people with disabilities worldwide and particularly in developing countries, there is little research on their travel characteristics and the problems they encounter en-route especially in Nigeria. Most studies on transportation in Nigeria have focused extensively on the travel behaviour and access needs of the able people (Adeniji, 1987; Aloba, 1989; Filani and Adesanya, 2010); with little or no consideration for the travel analysis of people with disabilities. In fact, the mobility challenges of people with disabilities and their transportation safety are rarely studied or discussed. Worse still, there are no deliberate efforts on the part of the government to address the mobility needs of this group. For instance, no aspect of all available transport related documents since Nigerian's independence in the 1960s as well as the 1993 and 2010 (draft) National Transport Policies made provisions for mobility and access needs of the disabled. Improving mobility need of the people with disabilities will provide them better access to



socio-economic facilities such as schools, clinics/hospitals, employment centres which are crucial to poverty alleviation. It is against this backdrop that the paper investigates the travel behaviour of people with disabilities, the problems they encountered and their safety en-route.

METHODOLOGY

The study relied on both primary and secondary sources of data collection. Two (2) Motor parks, 5 designated bus stops and 5 road terminals were purposively selected in Ibadan. The two motor parks are the largest in the study area. The bus stops and terminals have high concentration of the disabled and they are located on major corridors in the study areas. Also, two most populated disabled homes were purposively selected. Four hundred copies of the questionnaire were purposively administered on disabled people (the blind and crippled) in Ibadan Metropolis because these are disabilities that can be easily recognized physically. The questionnaire elicited information on the demographic and socio-economic variables of the respondents, mobility pattern (journey purpose, travel time, cost) and transport safety of disabled people. Similarly, the Key Informant Interview (KII) was conducted with respondents with long history of disability. This was done to help elicit information that will complement information on the questionnaire. Secondary data were sourced from journals, books and organizations that service the physically challenged. The data were analyzed using Microsoft SPSS package. Tables of percentages and graphs were used to depict demographic and socio-economic characteristics of the respondents while Pearson correlation analysis was used to show the relationship between socio-economic characteristics of respondents and the number of trips.

Study Area

Ibadan is situated approximately between Longitude 7°2' and 7°40'E and latitude 3°35' and 4°10'N of the Greenwich Meridian, at an altitude of 237.3 metres above sea level. As at 2006, the population of the study area was 1.4 million comprising of 11 local government areas. The location of the city at the fringe of the forest promoted its emergence as agricultural and marketing centres. This explains the location of some agricultural and economic research institutes such as International Institute of Tropical Agriculture (IITA), Cocoa Research Institute of Nigeria (CRIN) and Institute of Social and Economic Research (NISER), and popular and thriving markets such as Oja-Oba, Dugbe, Alesinloye, and New international market at Gbagi in the city.

Prior to the advent of the colonial era, the city of Ibadan was very compact and most locations could only be accessed through the use of footpaths and available narrow roads, which were adequate enough then to serve the need of the people. With increasing motorization, most of these roads cannot adequately serve the people particularly in the urban core. It must be noted that in general, most roads in Ibadan are in deplorable condition. This contributes to vehicle operating cost and hazardous traffic condition. Similarly, most of the road furniture has drastically deteriorated. For instance, there are few functioning traffic lights and most roads are served with inadequate and faded traffic signs and markings. Excessive speed and poor driving behaviour have also increased road danger. Motorists seldom give little considerations to pedestrians and motorcyclists.

In terms of public transportation, the most common modes of road transportation in Ibadan are motorcycle, bus, taxis and tricycle. Motorcycle is the fastest and most flexible, but also appear to be the most dangerous. It is the preferred mode of transport by many because of its ability to weave in and out of vehicles during traffic congestion. Mini buses (Danfos) are extremely old and usually overloaded with the aim of getting more revenue. It usually consists of a driver whose sole responsibility is to move the vehicle from one terminus to the other and a conductor, who gathers passengers and collects fares. Passengers of minibuses are usually not comfortable because of limited space and the condition of interior facilities such as the seats. However, the introduction



of high occupancy bus by the Governor Ajimobi's administration known as 'AJUMOSE' bus has provided cheaper alternative for the commuters. The behaviour of taxi operators is worse than that of the mini bus operators. They are always overloaded with two passengers sitting in the single front seat and some passengers 'lapping' themselves at the back seat. The taxi (popularly called Micra) maneuvers in-between vehicles because of its small size. The tricycle made its debut in urban passenger public transportation in Ibadan in 2010 and it is rapidly growing. Tricycle operators driving behaviour is akin to that of commercial motorcyclists. In fact, they are humorously described as 'graduates of school of commercial motorcycles'.

RESULTS

The result is presented under three headings; the demographic and socio-economic characteristics, travel challenges and safety of people with disability.

Demographic and Socio-Economic Characteristics of the Disabled

The demographic and socio-economic variables as shown in table 1 indicated that 3.9% of the respondents were less than 15 years, 24.0% were between 16-30 years and 43.3% were between 31-45 years. Those respondents between 46-60 years accounted for 24.0% while only 4.7% of the respondents were more than 60 years. In terms of sex distribution, about two third of the respondents were males. Furthermore, marital status revealed that about 60% of them were married. Singles accounted for 25.3%, separated 5.9%, divorced 1.3% and widowed 8.0%.

The educational background of the respondents indicated that 44.1% of them had no formal education, 28.6% had primary education while 12.9% possessed secondary education. Respondents with tertiary education accounted for 13.9%. Occupational characteristics of people with disability showed that majority of them were not officially employed (52.5%). Traders accounted for 9.1%, farmers 3.7% and artisan 11.9%. It is not surprising, therefore, that over half of them beg in order to sustain their livelihoods. About 30% of the respondents earned their income from their occupations and 14.2% relied on remittance for sustenance. More than 95% of people with disabilities earned N500 or less per day.

Table 1: Socioeconomic Characteristics of Respondents

Age of Respondents	Frequency	Percentage (%)
Less than 15 years	15	3.9
15-30	93	24.0
31-45	168	43.4
46-60	93	24.0
>60	19	4.7
Total	388	100
Sex of Respondents		
Male	259	66.7
Female	129	33.3
Total	388	100
Marital status		
Single	98	25.3
Married	230	59.3
Separated	23	5.9
Widowed/Widower	5	1.6
Divorced	31	8.0
Total	388	100
Educational Background		
No Formal Education	171	44.1
Primary Education	111	28.6
Secondary Education	50	12.9
Tertiary Education	53	13.7
Others	3	0.8
Total	388	100
Occupational status		
Farming	14	3.7
Civil Service	42	11.0
Artisan	46	12.0
Trading	35	9.1
Unemployed	201	52.5
Student	45	11.8
Total	388	100

Source: Author's Fieldwork, 2014

Figure 1 indicated the types of impairments suffered by the respondents. About 80% of them had physical disability while the remaining 20% had visual disability. With respect to cause of impairment, accident and diseases claimed major responsibilities as they accounted for 28.9% and 49.4% respectively as shown in Figure 2. Further investigation, through interviews showed that most respondents who mentioned accidents as the cause of their impairments were survivors of road crashes. Similarly, Polio was the most important disease state identified by respondents who claimed that diseases were the cause of their impairments.

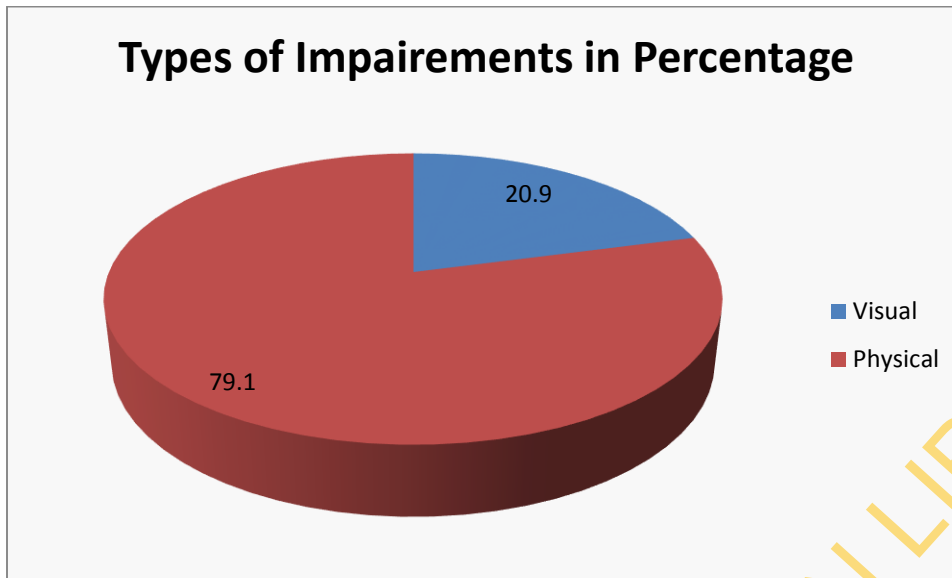


Figure 1: Types of Impairments

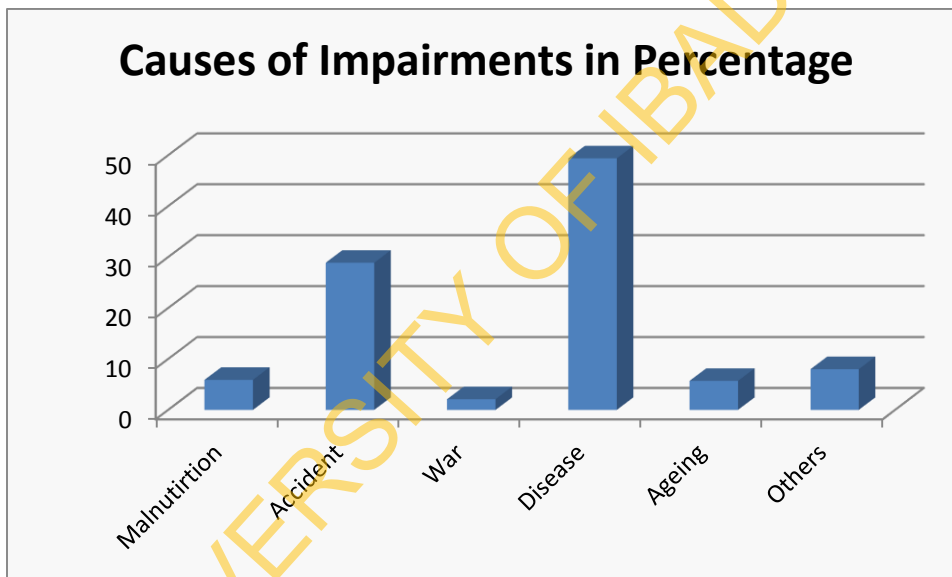


Figure 2: Cause of Impairments

Travel Characteristics of People with Disabilities

Due to the physical challenge experienced by people with disabilities, it became necessary to investigate how they got to their locations. More than 67% got there unaided (i.e. without any support from others). Sixteen percent (16%) relied on friends and relations while 7.2% were paying others in order to carry them to their present locations (see table 2). Furthermore, about 40% and virtually all the visually impaired persons were aided by their children to their current locations. The use of walking stick and personal attendant are common among the blind. The mode of transport as shown in table 2 indicated that 16.5% of the respondents walk, 0.5% used bicycle and those who travel using motorcycle accounted for 13.7%. Bus users constituted 42.4%,

those who patronized taxi were 17.3% and those who boarded cars were 2.6%. Other means of transport such as tricycle accounted for 7%.

Table 2: Mode of Transport of People with Disabilities

How they got here	Freq	Percentage	Mode of Transport	Freq	Percentage
Friends and Relations	62	16	Walk	64	16.5
Self	260	67.2	Bicycle	2	0.5
Paid to get here	28	7.2	Motorcycle	53	13.7
Children	37	9.6	Bus	164	42.4
Total	387	100	Taxi	67	17.3
			Car	10	2.6
			Others	27	7.0
			Total	381	100

Source: Author's Fieldwork, 2014

One of the measures of the effectiveness of public transportation is the access time to bus stops. More than 60% of the respondents spent 10 minutes or less to get to the nearest bus stops. People with disabilities who spent between 11-15 minutes accounted for 29.7%, 6% spent between 16-20 minutes while 1.8% of them had access time of between 21-30 minutes. Only two of the respondents spent more than 30 minutes to get to the nearest bus stops. This is depicted in Table 3.

Table 3: Access Time to Nearest Bus Stops.

Access time to Bus Stop	Frequency	Percentage	Waiting Time at Bus Stop	Frequency	Percentage
<5 minutes	41	10.8	Less Than 5mtes	70	18.5
5-10 minutes	195	51.2	5-10 Minutes	62	16.3
11-15 minutes	113	29.7	10-15 minutes	74	19.5
16-20 minutes	23	6.0	16-20 minutes	120	31.7
21-30 minutes	7	1.8	21-30 minutes	45	11.9
More than 30 minutes	6	0.6	> 30 minutes	8	2.1
Total	381	100	Total	379	100

Source: Author's Fieldwork, 2014

Similarly, waiting time at the bus stops, as shown in table 3, indicated that 18.5% of the disabled spent less than 5 minutes at the bus stops, 16.3% spent between 5-10 minutes at the bus stops while 19.5% spent between 11-15 minutes at the bus stops. Those respondents spending between 16-20 minutes and between 21-25 minutes accounted for 31.9% and 11.9% respectively. Furthermore, the condition of bus stops, which determines to a great extent the level of their utility, showed that most of them were in deplorable condition. For instance, more than 60% of people with disabilities considered the bus stops to be in fair, poor and very poor condition (see Figure 4). Those who considered the bus stops to be in good and excellent condition were 26.2% and 9.4% respectively. The large percentage of bus stops considered as good is not surprising because the government has just renovated some major bus stops in the metropolis prior to the introduction of the high occupancy bus known as 'AJUMOSE' by the government.

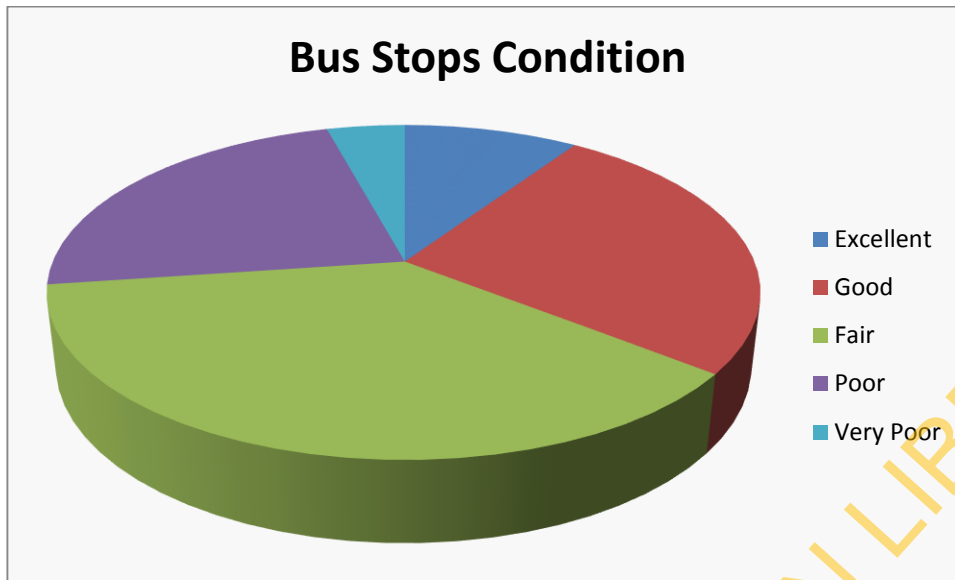


Figure 4: Bus Stops Condition

The number of trips made, which is an indicator of the level of mobility, showed that more than 80% of the disabled made just two trips per day (return trip). This is an indication that they have limited mobility. Disabled people who made three trips accounted for 3.1% while those who made four trips constituted 6.4% as depicted in Table 4. Journey purpose showed that work trips accounted for 28.2%, trips to education facilities constituted 11.6% while health trips were 0.5% as depicted in Table 4. Social trips were 4.5% and trips to other locations, probably to places where they go daily to beg for alms, accounted for 55.3%.

Table 4: Daily Trips and Journey Purpose.

Daily Trips	Frequency	Percentage	Journey Purpose	Frequency	Percentage
1	4	1.0	Work	107	28.2
2	342	88.1	Education	44	11.6
3	12	3.1	Health	2	0.5
4	25	6.4	Social	17	4.5
5	3	0.8	Others	209	55.3
6	2	0.5	Total	380	100
Total	388	100			

Source: Author's Fieldwork, 2014

The difficulties encountered by people with disabilities indicated that 43.5% of them identified road environment as the most important problem confronting them in their day to day travel as depicted in Table 5. This is closely followed by vehicle design which accounted for 26.9%. The attitude of staff (drivers and conductors) constituted 18.5% while the cost of transportation was responsible for 11.1%.

Table 5: Transport Challenges of the Disabled

Transport Challenges of the Disabled	Frequency	Percentage
Road Environment	165	43.5
Vehicle Design	102	26.9
Staff Attitude	70	10.6
Transportation Cost	42	11.1
Total	379	100

Source: Author's Fieldwork, 2014

The transport safety of the disabled people was equally explored. About half of the respondents have been involved in one road crash or the other as shown in figure 5. The manner of involvement indicated that 36.7% of them were hit as a pedestrian while the remaining 63.3% were in-vehicle road crash. This is expected because many of the respondents relied on public transport for their day to day activities. More than 80% of these crashes were attributable to human error (reckless driving, over-speeding and driver inattention).

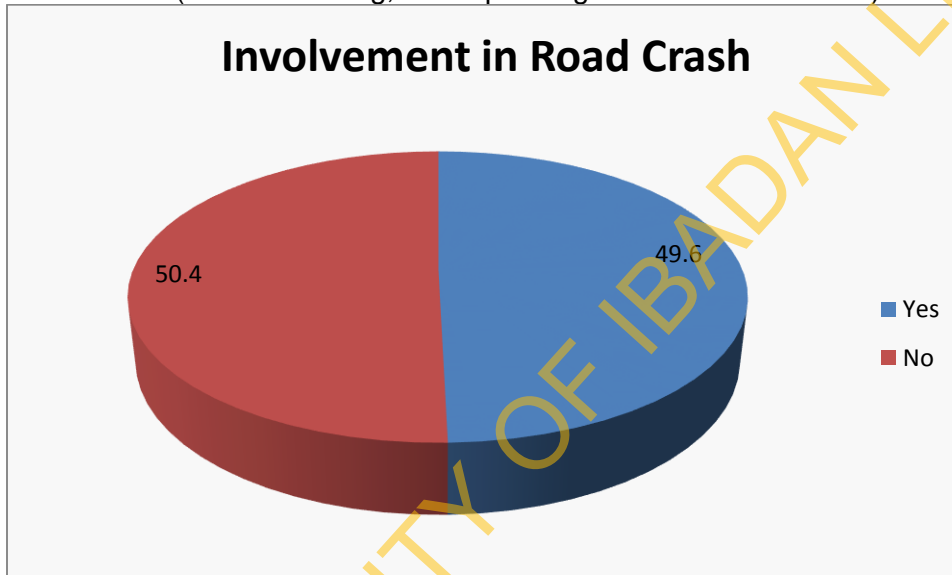


Figure 5: Involvement in Road Crash

In terms of the type of injury sustained during the crash, bruise accounted for more than 70% of the total. Dislocation constituted 13.7% and those who had fracture were 6.3%. Others types of injury such as scratch or twist were responsible for 7.4% of the injury type. This is depicted in table 6. Interviews with the respondents indicate that most of the crashes occurred as a result of reckless driving, driver inattention and over-speeding. With respect to the person who picked up the bill, individual road crash victim and family/relations accounted for 38.3% each. Friends and culprit constituted 19.7% and 3.6% respectively (Table 6).

Table 6: Injury Sustained and Payment.

Injury Sustained	Frequency	Percentage	Who Paid for it?	Frequency	Percentage
Bruise	138	72.6	Self	74	38.3
Dislocation	26	13.7	Friends	38	19.7
Fracture	12	6.3	Family/Relations	74	38.3
Others	14	7.4	Culprit	7	3.6
Total	190	100	Total	193	100



Source: Author's Fieldwork, 2014

Correlation shows significant relationship among educational attainment, sex, income and number of trips made (see table 7). In other words, the higher the level of education and income, the higher the number of trips made. Similarly, gender classification also has influence on the number of trips made. Men are conventionally known to be more mobile than women.

Table 7: Correlations

		Age of Respondents	Sex of Respondents	Educational Background	Income
Number of Trips	Pearson Correlation	-.061	-.054	.096	-.090
	Sig. (2-tailed)	.231	.051	.062	.078
	N	383	383	383	382

. Correlation is significant at the 0.05 level (2-tailed).

DISCUSSION

A thorough examination of the socio-economic characteristics of the people with disabilities indicated that about 2/3 of the respondents were within the productive age group (labour force). This category of age group is supposed to be making enormous contribution to the socio-economic development of the country. In fact, most countries rely on this age group for their economic progress and development. In this study, however, respondents in this age group are dependants- relying on family members and society for their daily living. The loss to the economy is also aggravated because many of the respondents were males who are usually described as bread winners.

Furthermore, more than 72% of the respondents had no more than primary education which may likely be as a result of their disability. Most of them are living below poverty line based on average daily earnings (N500) which is basically from begging. It is from this money that those disabled people pay the people that brought them there (for the crippled) or personal attendant (for the blind). Various studies have shown that the disabled are usually poorer than the general population (WHO, 2011; World Bank, 2013).

In terms of travel characteristics of the respondents, public transport accounted for more than 80% of the mode of transport. This is expected because some of them are poor and cannot afford personal car. Also, due to stigmatization associated with disability, disabled beggars always operate far away from home. In this wise, they will need public transportation to convey them. This is contrary to the findings among disabled Londoners where walking accounted for 78% of mode of transport (TfL, 2012). On the average, most of the people with disabilities made two trips per day which is attributable to their disabilities. This is compounded with poor transport which inhibits their frequency of travel. Various studies have shown that the disabled make fewer trips compared to non-disabled (TfL, 2012; Dejoux et al, 2010).

Work trip accounted for a smaller proportion of the journey purpose in this study, as also found in other studies (Dejoux et al, 2010). The reason is that most of their trips were not for conventional work trip but for the purpose of them making a living (basically through begging) which is categorized as 'others'. Access to and condition of bus stops, influence the level of patronage of public transportation. In this study, the physically challenged were unanimous in their dissatisfaction with the condition of bus stops. They identified lack or poor provision of seats which made them to stand waiting for vehicles, deplorable walkways leading to stops, poor lighting in the night and insecurity as some of the problems associated with bus stops. In Nigeria, there is



no special provision for people with disabilities at bus stops. They have to compete with the non-disabled in order to get a place on the bus, particularly during the peak hours.

The mobility challenges of people with disabilities have been documented (Hesier, 1995; Oxley & Gallon, 1995; Gallon, 2000). The road environment was identified as the most important challenge facing the disabled. There are no special road features that can help the physically challenged to navigate way when walking to the bus stops. Sidewalks, where they are available, are poor and disjointed which restrain the use of wheel chair. Some of the sidewalks have been taken over by street trading and on-street parking which force the disabled people to compete with moving vehicles on the carriageway. The visually challenged finds it more difficult to walk because of the absence of pedestrian facilities in the city. Whereas in developed and some emerging economies there are tactile and sensitive cane for the blind and provisions are made for wheelchair users, this is completely absent in the study area in particular and Nigeria in general. Therefore, the disabled access stops with rigor and pain.

Furthermore, the existing buses are not designed to accommodate the needs of the disabled. The steps are too high particularly for the crippled, who may need to use mobility aid such as crutches or stick to support themselves. The taxis have a lower step but limited space which may not be able to accommodate mobility aids for the crippled or the personal attendants of the blind who are usually 'lapped' in order to reduce transport cost. Both motorcycles and tricycles are not viable options for the disabled because of their design.

In the same vein, staff attitude also compound the difficulty faced by the disabled in the day to day transport activities. Persons with disabilities claimed that in most cases they were insulted, abused and molested by both drivers and conductors because they are too slow in boarding or alighting from vehicles. In some cases, public transport drivers do not stop to carry them. Therefore, it is not surprising that substantial number spend more than the recommended 10 minutes waiting time at the stops. The insensitivity of bus staff, particularly drivers, was also highlighted as a major constraint to the use of bus service by people with disability in the United Kingdom (DPTAC, 2002).

Though the number of disabled involved in road crashes was small compared to the total respondents. This is, however, significant considering the category of people involved. Payment for injury sustained also had implications on their livelihoods as many of them paid by themselves. This may further deepened their poverty level since money meant for their living would now have to be spent on taking care of their injuries. Some of them could even be abandoned by their relatives or friends, if the length of stay in the hospital is very long.

Recommendations and Conclusion

The preceding section showed the travel characteristics, mobility challenges and safety of people with disabilities. It is, therefore, imperative to make transportation, especially public transport more accessible to them. The following recommendations are expected to ease the mobility of people with disabilities in their day to day trip making.

The walking environment, especially the walkways, should be made friendly to the disabled. Currently, most of the walkways, where available, are not responsive to the need of the physically challenged. In some cases, the surface of the walkways has been removed or washed away, resulting in potholes which portend a grave danger for disabled people. Similarly, most crossing facilities do not take into consideration the peculiar nature of people with disabilities. It is therefore imperative that crossing facilities (especially at-grade) should be provided in locations that are accessible to the physically challenged. Furthermore, walkways should be lit, especially in the night, so as to provide them with a sense of security. This may stimulate the use of wheelchair.

Also, bus terminals should be made comfortable for the disabled through the provision of shelter and sitting facilities. Special facilities should be provided for the physically challenged to



encourage them to use sheltered bus stops. Government should also ban the use of undesignated bus stops so as to make sheltered (designated) bus stops more functional. This will enhance the utility of designated bus stops thereby attracting commuters to the stops.

Government should also consider fare concession for the physically challenged as practiced in other parts of the world. This could come in the form of pass, reduction in transport fare or riding public transport free of charge. There are wide variations of this practice in most developed and emerging economies. Government should emulate such countries.

It is very imperative that government embarks on disability awareness training for public transport drivers and conductors so as to improve the relations between them and the disabled as well as making their services to be attractive to people with disabilities. They should also be trained on safety education since most of the crashes were due to human error.

As part of long term plan, government should liaise with vehicle importers/manufacturers in order to provide low floor vehicles for the disabled. This will reduce the agony the disabled go through when boarding public transport. By providing public transport that better accommodate the disabled, the pool of potential passengers for the mode enlarges significantly, thus increasing potential revenues for public transport operators. This will benefit the whole population through the provision of pedestrian footways that are safer and easier to use. Low floor vehicle is gradually becoming a universal model for all public transport.

Conclusively, it should be noted that access for all can only be achieved through improved transport infrastructure. In order to achieve the goal of transport or access for all, government must move away from vehicle-centered transport to people-oriented mobility planning. Listening to transport disadvantaged people, particularly persons with disabilities and integrating their suggestions in the design, implementation and monitoring of transport infrastructure and services are crucial in meeting their mobility needs and providing sustainable solutions to their transport challenges.

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