

RISKS INVOLVED IN JOURNEY TO SCHOOL AND ACCESS PATTERN AMONG SCHOOL CHILDREN IN BENIN CITY, EDO STATE, NIGERIA

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ABSTRACT

This paper examines the risks involved in journey to school and access pattern among school children in Benin City, Edo State, Nigeria. The risk includes accident, molestation (sexually) and kidnapping. A sampling ratio of twelve percent (12%) was taken from 396 schools in Benin City. By implication, 49 schools were randomly selected in Benin City for this research. A total of 42,053 students in the 49 schools constitute the sample frame for the research. Two percent (2%), 841 students were taken as the sample size. The use of stratified sampling method was applied by stratifying the study area (Benin City) into local governments-Egor, Ikpoba-Okha and Oredo. Thereafter, the lists of schools in the various local governments were obtained from the Ministry of Education before the schools for research were randomly chosen from each local government area. The analysis revealed that 6.7% of the total students interviewed have been involved in road accidents. 1.04% of the total respondents said at one time or the other that they have been kidnapped. Finally, the research found that travel is comparatively safe and believes this may be partly attributable to safer route to schools and school children being more familiar with the school journey. The research indicates that children aged between eleven and fifteen are most at risk of hit or knocked down on Benin City's roads. These findings may help in planning and targeting road safety initiative (education, campaigns) in Benin City.

Keywords: Accident, Molestation (Sexually), Kidnapping, Pedophile, Pedestrian

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INTRODUCTION

The injury and tragedy which emanate from road accidents, molestation (sexually) and kidnapping especially as it relates to school children and other pedestrians in general have been largely neglected in most Third World countries. Recently, experts such as Child Accident Prevention Trust (CAPT) (2013), Nakitto, Mutto, Howard and Lett (2008), Rose (2000) presented a clear picture of the number of school children who suffer painful injury and death throughout the world. These school children suffer injury or death in the hospital or at home because of ignorance, poverty, low economic status of parents and limited access to health care facilities among others. According to Child Accident Prevention Trust (CAPT) (2013), road accidents account for a large number of deaths and injuries each year in Great Britain. Figures published by the Department for Transport show that in 2011, 2,412 children under the age of 16 were killed or seriously injured on the roads. Discussing why separate road casualties from other kinds of accidents, CAPT (2013) opined that road accidents account for a third of accidental deaths among 0-14 year olds and over half of accidental deaths for 5-14 year olds. Child Development Centre CDC (2012) stated that every hour, 150 children between ages 0 and 19 are treated in emergency departments for injuries sustained in motor vehicle crashes. More children ages 5 to 19 die from crash-related injuries than from any other type of injury. World Health Organisation (WHO) in collaboration with United Nation International Children Education Fund (UNICEF) (2008) examining the risks factors in Children and road traffic injury observed that boys are almost twice as likely as girls to be involved in road traffic crashes. This difference starts at a young age and grows with age until adulthood, with an overall death rate of 13.8 per 100 000 for boys and 7.5 per 100 000 for girls. It also posited that road traffic injury is strongly associated with poverty in all countries, irrespective of income level.

School children have long been recognized as one of the groups most at risks of involvement in traffic accidents, kidnapping and sexual molestation resulting in death or serious injury – especially accidents involving pedestrians and cyclists (Jenny, Wang, and Lotta 2002). Children's travel to school is already a focus of attention of many programs and strategies. Some of the programs

and strategies include the use zebra crossing, provision of traffic island and use of speed break and are developed and administered by public agencies and other arms of government, community groups, and by voluntary organisations. However, the perspective of these programs and strategies are quite different, with each tending to focus on different facets of school travel. Child molestation is a crime involving a range of indecent or sexual activities between an adult and a child, usually under the age of 14. In psychiatric terms, these acts are sometimes known as paedophilia. According to the Justice Department (2001), there are approximately four million paedophiles in the United States. It is difficult, however, to accurately assess the number of child molesters because many child molesters are not caught. The Justice Department reports the alarming statistics that one in four girls and one in seven boys will experience sexual abuse before the age of 18.

In March 2002, a Polish archbishop, a friend and former personal assistant to the Pope, resigned in the wake of sexual abuse charges. In Australia, 51 priests were convicted of child molestation between 1992 and 2003. In England, 21 priests were convicted of sexual molestation between 1995 and 2002 (Szasz, 2002). Understanding the factors that influence children's travel patterns is an essential first step in devising appropriate strategies to ensure their safety on the road and the road environs. (Jenny, Wang, and Lotta 2002). This study will focus on the access pattern – means of transport such as walking, cycling, motor vehicles, private cars and commercial buses and types of risks – accident, kidnapping, and sexual molestations of school children to and from school.

STATEMENT OF THE PROBLEM

The magnitude of the problem of access pattern and travel risks among school children in Benin City began to be unveiled as a result of reports from parents and researchers such as Dhoda and Allopi (2005). It is pertinent to recognize the crucial problem of travel risks among school children whether in the developed or developing countries of the world and especially in Benin City. It was estimated that over seventy- five percent of road side accidents occur in the so called developing countries, even though these countries account for only thirty-two percent of total motor

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vehicle fleet, which involves sixty-five percent of pedestrians and thirty-five percent of school children. For example, no fewer than twenty-eight pupils of Aricent Nursery and Primary School in the Olupitan area of Ore, and their proprietor, Alfa Tairu Ariyo, died in a road accident on the Ondo-Ore Road while returning from an excursion to Ore from Idanre Hills (Aborisade, 2010). Injuries arising from traffic collisions are a major cause of children's death, hospitalization, and disability throughout the world. According to a Human Rights Watch (2014), Islamic State of Iraq and Syria (ISIS) abducted 153 children between the ages of 13 and 14 from the mostly Kurdish town of Ain al-Arab on May 29. The children were returning home from taking their year-end exams in the city of Aleppo when they were abducted.

Researches have been carried out on travel risks among school children and road injuries by school age children. These include the works of Nakitto, Mutto, Howard and Lett (2008), Jenny, Wang, and Lotta (2002) Durkin, Danielle, Ilona and Barbara (1999) among others. However, there is no known study especially on spatial analysis of access pattern and travel risks among school children in Benin City that has been carried out. This is the research gap which this study intends to fill.

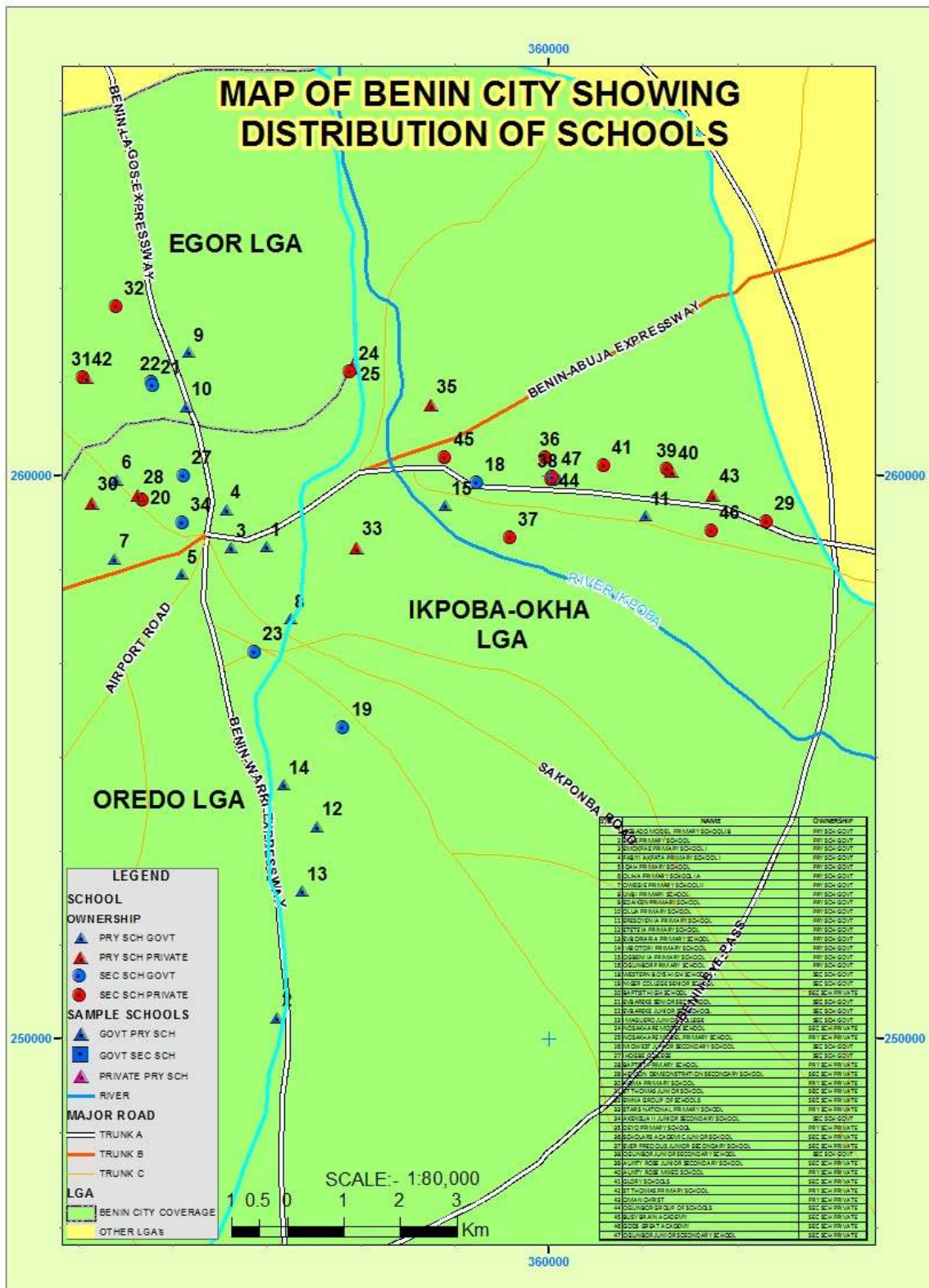
Aim

The overall aim of this paper is to examine the risks involved in journey to school and access pattern among school children in Benin City, Edo State, Nigeria

The Study Area

The study area, Benin City is the capital of Edo State and has three Local Government Areas, which are Oredo, Ikpoba-Okha and Egor Local Government Areas. Benin City lies within Latitudes of 6°14' and 6°21' north of the Equator and within Longitudes 5°34' and 5°44' east of Greenwich Meridian and measures approximately 112.5 km² in area (Ikhuoria, 1984; Aiworro, 2002). Benin City has been a state capital since the then Mid-Western Region, Bendel State and now Edo State.

Fig. 1 Study Area



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Climate

The study area falls within tropical climate. Due to its location, it has tropical climate with high insolation and rain falls for about nine months of the year. It has a temperature of about 27⁰C in the wet season and about 30⁰c during the dry season and rainfall of about 2000mm. The diurnal range and annual range of temperature are low. It has two seasons, wet and dry seasons. The wet season is from late February to October with a break in August giving rise to double maximum of rain fall. However, there is no month without rain fall. The dry season lasts from November to April with a cold harmattan spell between December and January. During the wet season, the school children are faced with high risk in going and coming from school. In most cases the children are drenched by rain, roads are flooded, the find it difficult crossing the roads and drivers charge high cost on transport. In other to mitigate the effect of rainy season on the school children, the Education policy has been designed that during the months of heavy rainfall (July, August and September) the school children are on long vacation.

METHODOLOGY

Accordingly, a sampling ratio of twelve percent (12%) each for public junior and senior secondary schools, private senior secondary, private junior secondary and private primary schools and public primary school from the school sample frame. Table 1 show the school sample frame, school sample size and percentage which were chosen from the total sample frame. A total of 841 respondents serve as the sample size.

Table 1 School Sample Frame and School Sample Sizes

School Type	Sample Frame	Sample Size	Percentage (%)
Pub. Snr. Sec. Sch.	40	5	12
Pub. Jnr. Sec. Sch.	44	5	12
Public Pry. Sch.	121	15	12
Priv. Snr. Sec. Sch.	63	8	12
Priv. Jnr. Sec. Sch.	64	8	12
Private Pry. Sch.	64	8	12
Total	396	49	12

Source: Authors' Field Work, June, 2017.

The use of stratified sampling method was applied by stratifying the study area (Benin City) into local governments- Egor, Ikpoba-Okha and Oredo. Thereafter, the lists of schools in the various local governments were obtained from the Ministry of Education before the schools for research were randomly chosen from each local government area. Nevertheless, the schools and sample were chosen proportionately. Since there are 396 schools in the study area, Benin City, only 12% was chosen for administration of the questionnaire. By implication, 49 schools were randomly selected in Benin City for this research as shown in Table 3.5. The students' population, 42,053 in the 49 schools constitute the sample frame for this research. Two percent (2%), 841 students were taken as the sample size.

Result and Discussion

Table 2 Sex Composition of Respondents

Sex	No. of Students	Percentage (%)
Male	396	47.1
Female	445	52.9
Total	841	100.0

Source: Authors' Field Work, June, 2017.

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Table 2 shows the sex composition of the students, 47.1% were male while the female constitutes 52.9% of the total respondents.

Table 3 Age Distribution of Respondents

Age	No. of Students	Percentage (%)
Less than 6yrs	0	0
6-10yrs	216	25.7
11-15yrs	432	51.4
16yrs above	193	23
Total	841	100.0

Source: Authors' Field Work, June, 2017.

Age distribution of students in Table 3 shows that 25.7% of the students are in the age of 6-10 years, age 11-15 years constitutes 51.4% and students of 16 years and above makes 23%. The age has a vital role to play in school children road accident as identified by Nakitto et al, 2008. Nevertheless, no respondent was interviewed in age less than 6 years due to the fact that respondents do not fall into that category.

Fig. 2 Bar graph showing Distances of School Children Home to School

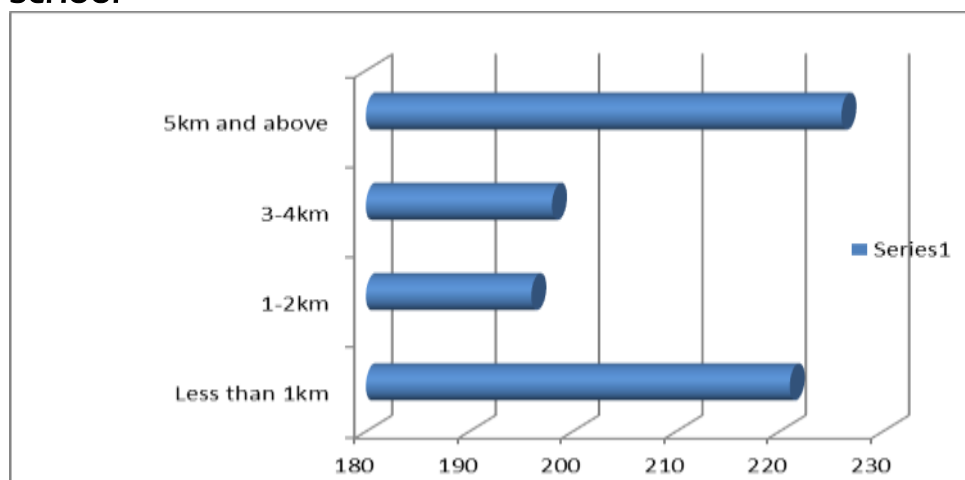


Table 5 represented in bar graph in fig.1 show the distance a school child travelled before getting to school every day. 26.3% of the students travelled less than one kilometre (1km), 23.3% travelled for a distance of 1-2km, 23.5% travelled for 3-4km and 26.9% constituted those that will have to go beyond 5km before getting to school.

Table 4 Respondents Mode of Transportation

Transport mode	No. of Students	Percentage (%)
Walking	608	72.3
Bicycle	56	6.7
Motor cycle	0	0
Commercial vehicle	123	14.6
Private vehicle	54	6.4
Total	841	100.0

Source: Authors' Field Work, June, 2017.

The various mode or means of transportation by the students as discussed under the modal split in literature are walking, bicycle, motor cycle, commercial vehicle and private vehicle. As shown in Table 4, 72.3% of the students walked to school, 6.7% used bicycle, and 0.0% used motor cycle, while the remaining 14.6% and 6.4% used commercial vehicle and private vehicle respectively. Nevertheless, no respondent indicate the use of motor cycle as means of transportation to school in Benin City. This is as a result of total ban on motor cycle within Benin City metropolis. Dhoda (2005) observed that existing road conditions, infrastructure and terrain in EThekwini Municipality made it unsafe to ride a bicycle. It is not surprising that the level of cycling in Benin City area is low. Yet, the bicycle is one of the most cost efficient modes of transport. It would appear that the economic, environmental and physical benefit of cycling has not been taken advantage of, because among other reasons the road infrastructure is not conducive to cycling.

Table 5. Respondents Time to Walk to School

Walking time	No. of Students	Percentage (%)
Less than 5 mins	108	17.8
5-10 mins	202	33.2
11-30 mins	187	30.8
More than 30 mins	111	18.2
Total	608	100.0

Source: Authors' Field Work, June, 2017.

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There are 608 respondents that walked to school. The percentage of school children that walk to school are shown on Table 5. From this table, 17.8% walked less than 5 minutes, 33.2 % walked 5-10 minutes, 30.2% walked 11-30 minutes and 18.2% walked 30 minutes and more. In other words only 72.3% of the total respondents walked to school while the remaining 28.7% used other means or mode to get to school.

Table 6 Type of Injury Sustained in Accident

Type of Injury	No. of Students	Percentage (%)
No injury	35	62.5
Bruises	17	30.4
Dislocation	3	5.4
Fracture	1	1.8
Total	56	100.0

Source: Authors' Field Work, June, 2017.

Table 6 shows type of injury sustain by the 56 respondents that is, 6.7% of the total students interviewed have been involved in road accidents. 62.5% did not sustain injury from the accident, 30.4% had bruises, and 5.4% had dislocation while 1.8% of the accident victim had fracture.

Table 7 Kidnapping amongst School Children (Respondents)

Kidnapped	No. of Students	Percentage (%)
Victim	8	1.04
Non-victim	762	98.96
Total	770	100.0

Source: Authors' Field Work, June, 2017.

Kidnapping amongst school children (respondents) is shown in Table 7. 1.04% of the total respondents said at one time or the other that they have been kidnapped, 98.96% said that they have never been kidnapped and 71 of the respondents did not indicate whether they have been kidnapped or not.

Table 8 Cases of molestation amongst respondents

Response	Frequency	Percentage
Yes	40	4.8
No	801	95.2
Total	841	100

Source: Authors' Field Work, June, 2017.

Table 8 shows the cases of molestation among the respondents. Out of the 841 interviewed, 40 respondents have been molested, that is 4.8% indicated that they have been molested while 95.2% have not been molested. The study has examined among other things the general characteristics of school children, their demographic and socio-economic characteristics. A holistic approach to travel risk among school children encompasses engineering, education, enforcement and encouragement. The research finds that travel is comparatively safe and believes this may be partly attributable to safer route to schools and school children being more familiar with the school journey. The research indicates that children aged between eleven and fifteen are most at risk of hit or knocked down on Benin City's roads. These findings may help in planning and targeting road safety initiative (education, campaigns) in Benin City.

RECOMMENDATION

Educational program targeted at injury prevention and control for school children should be part of the educational curriculum. The inclusion of these programs targeted at injury, molestation and kidnapping prevention and control should be taught in schools along side with their normal academic work. There is need to raise public awareness about the size and burden of injuries and molestations in Benin City, and with the different methods of prevention. Training of all medical staff and the public on injury care:

- Train all hospitals medical staff including physicians, nurses, and paramedics.
- Training of the public and first respondents (that is, Policemen, teachers, drivers etc).

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The Road Traffic Act (Act 93 of 1996) section 57.5 states that scholars can be organised into patrols so that the safety of pedestrian crossing on the public street or road can be ensured and should be enforced in Benin City. This should be like what the Road Safety Club, Anti-Drug Club etc. are in secondary schools so that the students will be aware of what pedestrian crossing is about. Organizing events (workshops, road shows, etc.) to raise public awareness on speeding and driving safety are also necessary. Traffic signal at entrance to schools is highly recommended considering the volume of traffic on the major roads in Benin City. The travelling plan of schools should be regulated by Ministry of Education so as to avert ugly incident that occur in Ondo State where 28 innocent school children lost their lives on Ondo- Ore road in March, 2010.

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