Poverty, Visual Loss and Destitution in Onitsha, Nigeria

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ABSTRACT.

Background: Visual loss is a major public health problem. About 90% of people who are blind live in low income countries, where increasing poverty perpetuates destitution. Poverty can be a cause and consequence of visual loss, and poor individuals have less access to eye care services. **Objectives:** To determine the relationship between poverty and visual loss among destitute. **Materials and Methods:** This was a cross-sectional study conducted among destitute in Onitsha, Nigeria between June and July 2011. Destitute clusters were randomly selected and interviewed. Information sought included socio-demographic variables, duration of destitution and estimation of monthly income in relation to needs. Ocular examination included estimation of presenting visual acuity, refraction, anterior and posterior segment evaluation. A focus-group discussion was also conducted. Data obtained was analyzed using SPSS, version 16. **Results:** One hundred and sixty-eight destitute comprising 93 males (55.4%) and 75 females (44.6%) were studied and the age range was 11-78 years with a mean age of 38.2±21.0 years. One hundred and twenty-nine (76.8%) did not have formal education, none was employed and 158 (94.0%) participants earned less than one United States dollar per day. All the blind destitute and those with severe visual impairment had very low daily income. Cataract (37.5%), glaucoma (17.2%) corneal disease (15.7%) and conjunctival disease (11.0%) were the common causes of visual loss. **Conclusion:** Poverty and visual loss are common among destitute in Nigeria. While each reinforces the other in a vicious cycle, there may be other reasons why people beg on the street.

Keywords: Poverty, Visual loss, Destitution, Nigeria

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INTRODUCTION

Worldwide, visual loss constitutes a public health problem. Many individuals across the world have become blind from a variety of causes. The World Health Organization (WHO) in 2017 estimated that 36 million people were blind while 217 million people were visually impaired.[1] A total of 4.25 million adult Nigerians aged 40 years or older were visually impaired or blind. The prevalence of blindness in all ages was 0.78%.[2] It was also estimated that 85% of all visual impairment across the world was preventable or curable.[1] Up to 90% of people who are blind live in low-income countries where increasing poverty perpetuates destitution.[1] Poverty can be a cause and consequence of blindness.[3] Some causes of blindness only affect the poorest communities and the poor individuals are less likely to access services.[3] Poverty has risen in Nigeria with almost 100 million people living on less than $US1 (one United States Dollar) per day according to National Bureau of Statistics in May 2020.[4]

In 2010, it was estimated that 60.9% of Nigerians were living in 'absolute poverty'.[4] According to the report,' the absolute poverty' is measured by the number of people who can afford only the bare essentials of shelter, food and clothing. This figure has risen from 54.7% in 2004. [4] This lack of the basic necessities of life has also been associated with absence of the zeal to cope with the socio-economic challenges of daily life.

Some scholars have examined the interrelationship between poverty and visual loss and found a significant association.[5,6] Poverty therefore could be a cause or consequence of visual loss. The relationship between poverty and visual loss leads to a vicious cycle that plunges the visually impaired and their families into deprivation which in turn gives rise to destitution. These destitute are found in Onitsha and most Nigerian cities begging for alms on the street. The actual number of destitute in Nigeria or Anambra state is not well documented but the increasing presence reflects extreme poverty.

There are however many factors that put people at the risk of destitution according to the United States National Centre of the Homeless Council.[8] These factors include extreme poverty, illiteracy, lack of health insurance, expensive housing, low wages, communal strife, domestic violence and substance abuse. In some developed countries, social programs and health insurance schemes have provided social and health coverage for the homeless and disabled people but medical policy changes often cause loss of health coverage for many people.[9] In many African countries including Nigeria, the problems of access to quality health care are unsolved and linked to the level of household out-of-pocket payment for health care. High out-of-pocket payment deters people from seeking eye care and eye problems that are treated early in other income levels are often delayed to a sight threatening stage among the destitute.[10] In Africa, Social Health Insurance (SHI) for now is not a widely adopted health financing mechanism. While there are many countries like Nigeria that operate health insurance scheme for civil servants and or private sector employees, the larger proportion of the population including the destitute are not captured in the scheme.

This study assessed the relationship between poverty and visual loss among destitute in Onitsha. The objectives included: To determine the levels of visual function among the destitute in Onitsha, to identify common causes of visual loss among the destitute in Onitsha, to estimate the average monthly income of the destitute in Onitsha and to make relevant recommendations on how to improve their social, economic and eye health services.

This study is necessary because there has not been any study to the best of authors' knowledge that addressed poverty and the vision related problems of the destitute in our environment. Even the Nigeria National Blindness and Visual Impairment Survey did not specifically capture the destitute population. Therefore, the present study was conducted to provide relevant information necessary for planning a holistic care for this neglected segment of the population.

MATERIALS AND METHODS

Ethical clearance for this study was obtained from the Ethics Committee of Nnamdi Azikiwe University Teaching Hospital, Nnewi. This was a cross-sectional descriptive study conducted among destitute in Onitsha metropolis, Anambra State,

southern Nigeria between June and July 2011.Combined quantitative and qualitative data were obtained. There was no pre-documented number of destitute or their clusters in Onitsha. However they are mostly found along busy streets, bus-stops, churches, major markets, motor parks, and charity homes. Majority of the destitute-clusters across Onitsha metropolis were identified, enumerated and ten clusters selected by a simple random sampling. Each of the names of the clusters in the sampling frame was written on a 5x5cm piece of paper, folded and put in a bag. The bag was churned 3 times. An assistant who was not part of writing the names picked out the folded papers from the bag. The folded papers were then opened and the 10 locations selected by the process. All the destitute above 10 years of age and of any gender and beg for alms on the street in the selected clusters were included in the study. Destitute who had mental disability and violent tendency were excluded from the study. A written informed consent was obtained from all the eligible participants. They were interviewed using pretested structured interviewer-administered questionnaire.

Information sought included socio demographic variables, economic status, employment status, sources of social and financial support, duration of destitution, possession of personal assets (like houses, land, cars, shares and business) and estimate of average monthly income in relation to needs. The estimated monthly income was then divided by 30 (30 days in 1 month) to get the estimated daily income of the subjects. In this study, poverty was defined as a living below 1United State Dollar (USD) per day. The August 2011 exchange rate of 1USD = N153 (One hundred and fifty-three naira) was used in the estimation.

General physical examination of all the participants was conducted. Ocular examination included estimation of presenting visual acuity, refraction, anterior segment using pen torch and a 3x magnifying loupe and a direct ophthalmoscope for the posterior segment. A Perkins tonometer was used to measure the intraocular pressure (IOP) of all the participants and confrontation testing of visual fields at 1meter was done. These procedures were performed separately on each eye of the participants in all the clusters which were mainly motor parks, markets and church premises. The eyes with optic atrophy and pathological cupping of up to 0.7, intraocular pressure (IOP) >21.0 mmHg and constricted visual fields were diagnosed glaucoma. Participants with minor ocular disorders were treated on the spot while those with serious conditions were referred to Guinness Eye Centre, Onitsha for further evaluation and management.

A qualitative data was obtained through a Focus Group Discussion (FGD) to get more information on the perception of the participants using a focus group discussion guide, audiotape recorder, transcription sheets and trained assistants. The participants were coded and their responses were transcribed into record sheets as data. This data was transferred to Microsoft excel spread sheet and analysed using SPSS version 16. This was conducted at the Missionary of Charity, Fegge, Onitsha. Ten participants, one from each cluster were randomly selected for the FGD and the process lasted for 2 hours.

In this study, Visual impairment was defined as the presenting visual acuity in the better eye of the participant that is <6/18-3/60 while blindness means presenting visual acuity in the better eye of the subject <3/60.[1] All visual impairment and blindness are referred to as visual loss. Destitution is associated with abject lack of the basic necessities of life (food, clothes, shelter, money), and lack of zeal to cope with the socio-economic challenges of daily life.[6]

Data from the study was coded and analysed by Statistical Package for Social Sciences (SPSS) version 16. Chi- square test and 95% confidence interval were employed with significance level at 0.05%.

RESULTS

A total of ten destitute clusters were selected. All the participants in these locations were studied, comprising 93 males (55.4%) and 75 females (44.6%). The age range was 11-78 years; mean = 38.2+ 21.0 years One hundred and twenty-nine (76.8%) did not have formal education; 36 (21.4%) had primary education; secondary 3 (1.8%). None had tertiary education and none was employed at the time of the study. However, 10 (6.0%) participants had worked as peasant farmers and daily paid

labourers prior to destitution. Ninety-eight (58.3%) have been in destitution for >5 years; 50 (29.8%) for 2-5years and 20 (11.9%) for <2 years. One hundred out of 168 (59.5%) destitute had physical deformity with 56 (33.3%) having ocular problems; 37 (22%) cripple; 4 (2.4%) leg ulcer and 3 (1.8%) hernias.

Table 2 shows the presenting visual acuity in the better eye of 21(12.5%) destitute was less than 3/60 (blindness) while 17 (10.2%) destitute had visual acuity in the better eyes of less than 6/18 to 3/60 (visual impairment). Therefore 38 (22.7%) destitute studied had visual loss.

Table 3 shows the estimated monthly income of the destitute studied while Table 4 shows the estimated monthly income versus the level of visual function in the better eye of the participants. Twenty one (21.5%) destitute were blind while 17 (10.2%) had visual impairment. One hundred and twenty two (72.6%) of the participants earned less than N3000 monthly (less than N100 per day) and all blind destitute and those with severe visual impairment belong to this lowest income level; The ten destitute (6.0 %) that earned up to N5000 or less monthly (≤ N166 per day) had mild or no visual impairment. Cataract 24 (37.5%), glaucoma 11 (17.2%), corneal diseases 10 (15.7%), high myopia 3 (4.6%), diabetic retinopathy 2 (3.1%) and age-related macular degeneration 1 (1.6%) were the causes of visual loss among the destitute.

The Focus Group Discussion (FGD) showed that all the destitute beg for alms on the streets due to lack of money. Up to 100 (59.5%) study participants believed eye problems are caused by evil spirit, 80 (47.6%) enemy's poison, 26 (15.5%) punishment from gods, 72 (42.9%) witchcraft and 16 (9.5%) swearing of false oath. All participants used self-medication and 109 (65%) of them had not visited any eye care facility. One hundred and fifty-eight (94%) participants used traditional eye medication; 138 (82%) had negative attitude towards eye surgeries and other orthodox treatment modalities based on cultural, social, economic, religious and psychologic experiences.

Table 1: Age And Gender Distribution Of Destitute

S/N	Age In Years	Male No (%)	Female No (%)	Total (%)
1	11-20	11 (6.5)	6 (3.6)	17 (10.1)
2	21-30	16 (9.4)	7 (4.3)	23 (13.7)
3	31-40	15 (8.9)	15 (8.9)	30 (17.8)
4	41-50	9 (5.4)	15 (8.9)	24 (14.3)
5	51-60	17 (10.1)	7 (4.2)	24 (14.3)
6	61-70	24 (14.3)	22 (13.1)	46 (27.4)
7	> 70	1 (0.6)	3 (1.8)	4 (2.4)
	Total	**93 (55.3)**	**75 (44.7)**	**168 (100)**

Table 2: Prensenting Visual Acuity In The Better Eye

S/N	Presenting Visual Acuity (Va) Better Eye	Level of Visual Fuction	No(%)
1	>6/18	Mild or No VI	130 (77.3)
2	<6/18-6/60	Moderate VI	14 (8.4)
3	<6/60-3/60	Severe VI	3 (1.8)
4	<3/60-LP	Blindness	8 (4.8)
5	NPL	Blindness	13 (7.7)
	Total		**168 (100)**

**VI = Visual impairment*

Table 3: Average Monthly Income Of Destitutes

S/N	Amount (Naira)	Frequency	%
1	< 3000	122	72.6
2	3000-4000	36	21.4
3	>4000-5000	10	6.0
	Total	**168**	**100.0**

Table 4: Estimated Monthly Income Versus Visual Function

			Monthly Income (₦) No: (%)		
			< ₦ 3,000	₦ 3,000 -₦4,000	> ₦ 4,000 - ₦5,000
Presenting Visual Acuity(better eye)	Level of Visual Function	No. (%)			
> 6/18	Mild or no VI*	130 (77.3)	91 (54.2)	30 (17.9)	9 (5.4)
< 6/18 – 6/60	Moderate VI	14 (8.4)	7 (4.1)	6 (3.5)	1 (0.6)
< 6/60 – 3/60	Severe VI	3 (1.8)	3 (1.8)	0 (0.0)	0 (0.0)
< 3/60	Blindness	21 (12.5)	21 (12.5)	0 (0.0)	0 (0.0)
Total		168 (100.0)	122 (72.6)	36 (21.4)	10 (6.0)

*p = <0.05, *VI = Visual Impairment*

DISCUSSION

The result of the present study shows that the proportion of destitute living in poverty is high (living below 1USD per day). This reflects the rising proportion of Nigerians living in 'absolute poverty'.[4] Up to 94.0% of the destitute earned less than 1USD per day. The present study also showed that severity of visual loss is directly related to the severity of poverty among destitute in Onitsha (Table 4).The pattern of visual loss among these destitute in this study, is similar to the findings by Ribadu et al in a similar study in Maiduguri, northern Nigeria where cataract and glaucoma were the major causes of visual loss.[5] The major causes of visual loss among the destitute are thus avoidable in the sense that technology exists to treat or prevent visual loss from them.

The avoidable nature of the visual loss in up to 90% of the destitute implicated poverty as a causative factor and the participants' subsequent existence in poverty and destitution appear directly related to their visual loss (Table4). Apart from visual loss (33%), other physical deformities included cripple (22%), leg ulcers (2.4%) and hernias (1.8%). None of the participants was employed and all of them roamed the street begging for alms. A large proportion of those who claim to have previous jobs were peasant farmers and unskilled daily paid labourers belonging to low socio-economic class. These jobs mainly serve to maintain subsistent living and their daily income could hardly meet the basic needs of their families. At this point, affliction by any form of deformity leads to abandonment of these jobs thus begging becomes an option. Sixty-eight (40.5%) participants had no obvious physical deformity. This shows that other factors other than physical disabilities may also be responsible for destitution. This also could explain why the length of destitution is not directly related to the level of visual loss because some of the destitute without any physical deformity have spent longer time in destitution than most of those with physical deformity.

Waldron noted that in United States of America, a fifth of all jobs do not keep families out of poverty.[10] The role of poverty as a causative factor and a consequence of destitution can be inferred from high level of unemployment, poor daily income among the destitute in the present study. All these indicators of economic and social deprivation limit access to opportunities as well as access to eye health care and services. Thus eye diseases which could have been treated earlier are delayed to a sight-threatening stage and eventual visual loss.

Visual loss is a major cause of limited education which is closely linked to other indicators of poverty. Majority (76.8%) of the destitute studied had no formal education; 36 (21.4%) had primary education; secondary 3 (1.8%) and none had tertiary education. This agrees with the observation of Bassuk who reported that families experiencing destitution have limited education.[11] This low educational attainment of the destitute is most probably a consequence of their visual loss and destitution. For instance, blindness can also limit access to education indirectly, as a burden of caring for family members who are blind often falls on the school-age children. As a result these school-age children are trapped in the situation with little chance to escape such that a vicious process of poverty is maintained among the destitute families across generations.

Literacy program for the destitute as recommended by Bolu et al is very necessary in order to empower them overcome poverty.[12] This will provide and

restore access to new information, opportunities for skill acquisition and eye care services.

In conclusion, although poverty is a significant cause and consequence of visual loss among the destitute, there are other reasons why people beg on the street and these need multidisciplinary evaluation. There is an urgent need to mobilise these individuals out of the street, educate and provide a functional socioeconomic rehabilitation for them in order to improve the general well-being of these Nigerians. The findings of this study will be useful in planning or implementation of eye health care and social services for the destitute in Nigeria.

Finally, we note that this study was conducted about a decade ago. Therefore, a follow up study is being planned in order to find out any changing trend.

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Author Contributions

C.U Akudinobi and S.N Nwosu conceptualized as well as designed the study and implemented the project. The authors revised and approved the final manuscript and agreed to be accountable for all aspects of the work.

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Conflict of Interest

The authors declare no conflict of interest

Ethical Approval

Ethical clearance for this study was obtained from the Ethics Committee of Nnamdi Azikiwe University Teaching Hospital ,Nnewi.

REFERENCES

1. Bourne BRA, Flaxman SR, Braithwaith T, Cicinelli MV, Das A, Jonas JB;Vision Loss Expert. Magnitute, Temporal Trends and Projections of Global prevalence of Blindness and Visual Impairment. Lancet Glob. Health.2017 Sept.5(9): e888-97.
2. Kyari F, Gudlavalleti MV, Sivsubramaniam S, Gilbert CE, Abdull MM, Entekume G et al. Prevalence of Blindness and Visual Impairment in Nigeria. The National Blindness and Visual Impairment Survey. Invest Ophthalmol. Vis. Sci. 2009; 50 (5): 2033-2039.
3. A. Tafida, F. Kyari, M.M Abdull, S. Sivasbrammam, G.V.S Murthy, J Kana. Poverty and Blindness in Nigeria; Results from the National Survey of Blindness and Visual Impairment.Ophthalmic Epidemiol 2015; 22 (5):333-341.
4. National Bureau of Statistics."Absolute Poverty' in Nigeria" .May 2020. https// en.m.wikipedia.org.wiki.Acessed on 25 May 2020
5. Kuper H, Polack S, Eusebro C, Mattenge W. Wadud Z, Foster A. Case Control Study to Assess the Relationship between Poverty and Visual Impairment in Kenya, The Philippines, and Bangladeshi PLOS Med 2008 16; 5(12): 244.
6. Ribadu D, Mahmoud A, Assessment of Interrelationship between Poverty and Blindness in Maiduguri, Nigeria. The Niger Postgrad. Med J. 2010; 17 (4): 308 – 312.
7. Joint Centre For Housing Studies of Harvard University, Growing wealth, inequality, and housing in United States, 2007, 19; (31): 241.
8. Marsha MC, Murray A, Gelberg L, Breakey L, Clinical practices that respond to the needs of homeless people. National Symposium on homelessness Research 1998;64.
9. Kirigia J, Korte R, Malouza K, Nyikal J, Keomm B. Health financing in Kenya. Assessing. The Social Health Insurance. 2007: 97 (2): 130.
10. Waldron T, Working Hard Falling Short. American's Working Families and The Pursuit of Economic Security (Annie E Casey Foundation) 2004: 14.
11. Bassuk FL, Homelessness in Female-headed families: Childhood and Adult Risk and Protective Factors, American Journal of Public Health. 1996; 87 (2): 241 – 248.
12. Bolu R, Fajemilehin, Emmanuel OA, Kabiru KS, Elderly Destitute in Ile-Ife Community, Osun state, Nigeria. International Journal of Nursing Practice 2002; 13 (32): 161-165.