

# The problem of educating blind children in Benin City.

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## SUMMARY:

All the institutions available for formal education of blind children in Benin City were studied. The total number of children in these schools were 14 (eleven in the primary school exclusively for blind children and three were attending normal secondary schools with facilities for blind education). The number reflects the gross under utilisation of the facilities available. The commonest cause of blindness amongst these children was opacities in the media which occurred in 8 out of 14 (57%) (6 in the cornea and 2 in the lens). This was closely followed by congenital anomalies, 7 out of 14 (50%) (micro-cornea 4, micro-ophthalmos 2, congenital glaucoma 1). Some of the factors militating against a better uptake of the available facilities are discussed.

**KEY WORDS:** *Blindness, educating blind children.*

## INTRODUCTION

Formal education for the blind was started as far back as 1785 in France<sup>1</sup>. Initially, ordinary raised letters were used. The printing and reading of raised letters by touch was difficult. This led to the development of several methods of reading and writing for the blind over the years most of which were unsatisfactory. In 1829<sup>1</sup> a blind boy named Louis Braille invented a form of writing which uses six dots to represent letters. This surpassed other systems because of the ease of writing and their legibility to the blind.

The exact proportion of the blind that are children of school age is not known. Projections from surveys by Roger in Ghana and Nigeria<sup>2</sup> indicate that approximately 12% of the blind are children below 15 years. Europe and America are estimated to have between 2%-3% of the blind of school age<sup>2</sup>. The larger number of blind children of school age places a practical limit to the number of special residential schools. Hence in 1960, the Royal Commonwealth Society for the Blind (now Sight Savers International) launched the open education scheme for the blind in Nigeria<sup>1</sup>. The blind were integrated into schools with sighted children. The advantages of this were as

follows:

- It changed the thinking of Nigerians about the blind.
- It provided a logical and practical way of dealing with large numbers of school children.
- It was relatively cheap.
- It preserves the bonds of local life of the blind child.

However, open education scheme was never aimed at replacing residential schools for the blind, rather it was supposed to supplement them.

With the down turn of the national economy in the 90's, leading to an increased number of children dropping out of school, it has become increasingly difficult to focus on blind children. As a result, the open education system although comparatively cheaper has failed to receive adequate support by the various governments, voluntary agencies and regional societies for the blind who co-ordinate blind education in Nigeria.

Blindness in children is not looked at in terms of numbers only, but in terms of blind years anticipated by each child. Though there are more blind elderly people than there are blind children, the number of blind years from the fewer blind

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children is certainly more than that of the elderly blind. Also, the cost of educating and rehabilitating a blind child is usually more than that of an elderly blind. Blind children run the risk of facing a lifetime of deprivation - social, intellectual and economic. Total dependence on relatives or the society at large through street begging could be their only means of survival. Blindness does not necessarily imply helplessness. With proper education and rehabilitation, a whole new world of meaningful existence can open up. Social interaction outside the family circle is enhanced. Ability to read and write creates access to modern technological gadgets designed to aid the blind such as Braille books, Braille type-writers, talking libraries, with books on records or tapes and recently talking computers. Education also enhances job opportunities, which has a direct effect on socio-economic standing of the individual in society as well as enhancing self-dignity through employment. The above consideration and the reduced life expectancy as a result of blindness, make it imperative that child hood blindness should receive the attention it deserves.

## MATERIALS AND METHODS

A total of 14 blind students (11 from the primary school for the blind, 2 from Ihongbe College and one from Idia College) were interviewed and examined. Medical history included general identification data, causes and age at onset of blindness, family history of visual loss where available and history of consanguineous marriage or parents.

Ophthalmic examination was recorded with the aid of the WHO/PBL form. This involved the visual acuity measurement. Pin hole examination of the anterior segment using pen torch and direct ophthalmoscopy when possible in eyes with sufficiently clear media.

## RESULTS

Table 1 shows the age and sex distribution of the blind children. Age range is 7-24 years. There

**Table 1: Age and sex distribution.**

Age in Yrs	Male	Female	Total	%
7-12	3	5	8	57.2
13-18	3	0	3	21.4
19-24	2	1	3	21.4
	8	6	14	100%

are 8 boys and six girls, which is an even distribution of both sexes.

Table 2 shows the age at onset of blindness. Over half of them (57.2%) lost vision in infancy and childhood.

**Table 2: Onset of blindness.**

Age of onset	Number	%
From birth	6	42.86
Neonatal period (0-4wks)	0	0
Infancy (1-12 months)	4	28.57
Childhood (> 1 year)	4	28.57
	14	100

Table 3 outlines the aetiology of blindness. In most cases this is attributed to more than one causative factor. The commonest cause seen was opacities in the media. This occurred in eight students (57.2%). Six students (42.9%) had corneal opacities while 2 (14.3%) had lens opacities. Two others were aphakic due to previous cataract extraction, however aphakic glasses were abandoned because it did not significantly improve vision.

**Table 3: Aetiology of Blindness.**

Cause of blindness	Number	%
Corneal opacity	6	42.8
Phthisis bulbae	4	28.6
Microcornea	4	28.6
Congenital Cataracts	2	14.3
Aphakia	2	14.3
Microphthalmia	2	14.3
Retinitis pigmentosa	2	14.3
Stevens Johnson syndrome	2	14.3
Anterior staphyloma	2	14.3
Congenital glaucoma	1	7.1
Trauma	1	7.1
Total	28	*

• More than one pathology existed in some students.

Table 4 shows the presence of additional disability: A seven-year old girl who is mentally retarded as well as being blind and a twenty-four year

old boy had contractures on the neck and left side of face following the trauma that led to the blindness, (burns).

**Table 4: Presence of additional disability.**

Additional disability	No. of children	%
Additional disability	2	14.5
No additional disability	12	85.7
Total	14	100

Table 5 shows the visual acuity of the students. They were all blind by WHO standard. (Best corrected visual acuity of less than count finger at 3 meters in the better eye). One eight year old with retinitis pigmentosa could count fingers at about 3 meters.

**Table 5: Visual acuity.**

Visual acuity	No. of eyes	%
NLP	7	25.0
LP	2	7.0
HM	8	28.6
CF < 3 meters	10	35.7
CF @ 3 meters	1	3.6
Total	28	100

## DISCUSSION

The school for the blind in Benin City is exclusive to blind children and offers only primary education. It is co-educational and non-residential. Idia College and Ihongbe College are normal secondary schools that have facilities for blind female and male students respectively.

No accurate data on blindness rates in developing countries are available. Based on WHO estimates<sup>6</sup>, developing countries average blindness rates of about 1%. Benin City has a current population of 780,976<sup>7</sup>. Assuming that children of 15 years and below form 45%–50% of the general population<sup>8</sup>, it is estimated that blind children in Benin City will be at least 3,514. Out of this number, only 14 (0.4%)

are presently receiving either primary or secondary education. This is surprisingly small in view of the staff and materials available for teaching.

The blind school in Benin City relies almost totally on Government for funding. In recent times, this funding has been grossly inadequate. Transportation services for pupils, which were provided for in the past such as school bus, could no longer be sustained. This particular set back apart from accounting for the drop of over 50% of previously registered students, has also made the remaining students irregular at school. From the interview of the staff and students in the blind school other reasons proposed for the poor uptake of the excellent facilities provided are:

1. The primary school for the blind caters for only day students. There is no provision for residential schooling.
2. High cost of transportation to and from school is further escalated by the fact that blind children of primary school age cannot move across the town without an escort, which in effect, double the fares.
3. The school, which is located in the centre of Benin City, is not easily accessible to blind children living in rural areas, mostly in the outskirts of the City.
4. Lack of motivation by some parents and non-challant attitude towards educational requirement of their blind children.
5. It is likely that those with severe visual impairment who may have benefited from the facilities in the blind school are possibly attending normal schools with the sighted children. This is likely to result in poor school performance and invariably a high drop out rate.
6. At present, the mode of enrolment in the school is through self-referral and referrals from government and private hospitals. There seem to be no legislation making it compulsory for the blind children to be enrolled as in the case of some developed countries (e.g. Scotland 1890), England and Wales 1893).
7. Obvious competition of the meagre family resources between the child and the sighted children. Many parents would prefer to send their sighted children to school to the detriment of the blind child when resources are limited.
8. The traditional attitude of keeping handicapped indoors to reduce embarrassment to the family is still very much practised by many families.

9. In some cases, there is genuine ignorance that such facilities as blind school exist for the up-liftment of their handicapped child.

The leading cause of blindness in their study is opacities in the media, [corneal and lens]. In most cases, the cause of the corneal opacification could not be clearly elucidated, though in a few cases stories of measles in childhood was given. In developing countries, a funnel of childhood blindness has been described in which several factors such as measles, ophthalmia neonatorum, protein energy malnutrition, vitamin A deficiency and toxic traditional eye medicines all lead to corneal scarring and phthisis bulbi and sometimes death<sup>9</sup>. Blindness from all these causes are avoidable through some well known measures such as:

- Improving immunisation coverage so as to prevent blindness from measles.
- Ensuring balanced diet for children and when necessary, give vitamin A supplements to prevent keratomalacia.
- Good health education so that common eye infections are treated appropriately and promptly and use of harmful traditional eye medications discouraged.

Blindness from congenital cataract and glaucoma could be minimised by improved facilities and technology. For example, use of intra ocular lenses for correction of aphakia in congenital cataracts may prevent development of amblyopia from inadequate aphakic correction.

In the advanced or industrialised countries, prevalence of childhood blindness has been reduced to the barest minimum. Most causes of corneal ulcerations have been eliminated while congenital cataract and glaucoma are detected early and treated. As a result, the main causes of childhood blindness has been reduced to hereditary diseases and perinatal causes which account for 50% and 30% respectively of visual impairment in children in the U.K.<sup>10</sup>.

Cataract and glaucoma still remain major problems because of late presentation, inadequate facilities for aphakic correction and development of amblyopia. Consanguineous marriages have been identified as contributory factor to the high prevalence of childhood blindness in some parts of the world<sup>11</sup>. Consanguinity is not a common feature in West Africa and none of the children in this study were from consanguineous marriages.

### Suggestions

1. More residential schools should be established especially at the primary school level so that the difficulties of daily movement to and from school for the blind child at this tender age can be minimised.
2. Parents need to be encouraged through public enlightenment programmes and use of social workers to enrol their blind children in schools as there is no embarrassment in parenting a blind child.
3. In view of the limited resources in developing countries, the open Education System is very relevant and complementary to the special schools for the blind especially at the post primary and the University level.
4. The place of vocational training in the rehabilitation of the blind cannot be over emphasised. None academic activities such as mat-making, basket weaving and other crafts which are usually taught in blind schools is a step in the right direction and could be encouraged especially at the post primary level.

### CONCLUSION

Childhood blindness should be prevented as a matter of priority because of the long term academic and social deprivation that befalls the unfortunate individuals as well as the economic and social burden on the family, the government and the society at large.

When blindness has occurred, a lot can still be done to reduce the individual's dependence on others. A good education will help to alleviate physical and mental isolation, improve employment opportunities as well as facilitate adequate integration of the blind as useful and productive members of the society.

### REFERENCES

1. Anumonye A. Adaptation to Blindness in Nigeria, Lagos University Press (1981). P.100, 123, 124, 9.
2. Taylor A, Butcher FH. Education of the blind in Africa. The Caxton Press, Ibadan (1964). P 1.
3. Taylor J. Focus on childhood blindness. *African Health* (1993), 15, 3; 33-34.
4. Kagame K, Schwab L. childhood blindness, dateline in *African International Ophthalmology* (1989) 20; 2: 128-131.

5. Taylor HR, Katala S, Munoz B, Turner V. Increase in mortality associated with blindness in Rural Africa Bull WHO (1991) 69, 3; 335-338.
6. Thylefors B. Much blindness is avoidable. World Health forum Vol. 12(1991) 78-85.
7. National Population Commission (1991) Census figures.
8. Lucas AO, Gilles HM. A Short Textbook of Preventive Medicine for the Tropics London, Hodder and Stoughten (1978): 5-6.
9. Faal HB. Childhood blindness, cause and prevention strategies. *Postgraduate Doctor Africa* Vol. 14, No. 3; 47-50.
10. Meriarty OBJ. Childhood blindness in Jamaica *Br. J. Ophthalmol.* (1988) 72: 65-67.
11. Elder MJ, Decock R. Childhood blindness in the West Bank and Gaza strip. Prevalence Aetiology and Hereditary factors. *Eye* (1993); 7: 580-583.