The Education Concept of Low Vision Intervention: The Kenyan Model

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Introduction
In Kenya there is no concrete data concerning people with visual impairments and specifically those who can be classified as having Low Vision. However, it is generally acknowledged that the problem of low vision is significant and that it is increasing rapidly particularly in children.

According to Ministry of Health, Eye Care 5-years Strategic Plan, the magnitude of blindness and low vision is estimated at 300,000 and 900,000 respectively. In Africa, It is estimated that the prevalence of childhood blindness is 10 times higher than in the industrialized countries (Yorston et al 2000).

As half of the population of sub-Saharan Africa is under 16 years, this represents a vast number of childhood blindness and low vision thus the essence of providing low vision intervention services that are developed locally in line with traditions, beliefs, social and economic realities.

For quite sometime, Low Vision intervention in Kenya has been the province of Special Needs Education teachers who have been providing services to children in the schools for the blind and integrated programmes for the visually impaired. To an extent, the field of ophthalmology participates in the education related low vision intervention process by diagnosing, treating and providing optical devices.
The goal of this education-led concept of low vision intervention, have been academic achievement and socio-economic attainment, thus it employs a holistic approach whose concerns and action focuses beyond vision. This paper will outline the structure to the process and content of education in low vision intervention service delivery.

**Background**

Before 1994 sparse and disjointed assortment of low vision services existed in the schools for the blind, with ophthalmologists giving medical intervention and classifying children with low vision who should use print as medium of performing school work and those to use tactual sense (Braille). This was being done without evaluation of the functional visual abilities and in most cases the teacher ignored the ophthalmologist advice partly because majority of children classified for print did not manage to use print and also because the teachers lacked training in their initial special needs teacher training course, on how to help the children with low vision utilize their vision efficiently.

Visual impairments come in many forms, affect many different groups of children in different social and academic situations and have a different impact on each child (Welsh, 2004). Further, children with low vision have been visually impaired for most, if not all their life. Whilst the ophthalmologic intervention contributes in the overall intervention, specific low vision intervention strategies focusing on habilitation are more ideal in children.

**The Kenyan model of low vision intervention**

In 2002 the Kenyan Ministry of Education developed low vision education intervention guidelines stipulating the practice patterns in the country’s education system. These guidelines placed the teachers at a very central point in Low Vision intervention service. This development was a result of realization that teachers can play a critical role in the low vision intervention process. This is because they have direct interaction at a very local level both with the children and their parents. In addition, a lot of the children’s time is spent at school where most of the visual demands are to be met.

**Description of the programme**

The programme consists of the following elements:

- Vision Support Teachers training course (VST)
- District Low Vision Resource Center (LVRC)
- Hospital-based Low Vision Clinics (LVC)
- Schools for the blind and integrated programmes for the visually impaired

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1 Development of abilities rather than recovery of abilities lost
Vision Support Teachers training course (VST)
Savak (1989) stated the importance of teachers training in low vision skills; to ensure that they are able to competently work with children with low vision. The teachers who would in turn provide low vision intervention undergo a one-year Vision Support Teachers training course (VST) at Kenya Institute of Special Education that equips them with basic knowledge and skills on:

- Probable implication that specific visual disorders in children is likely to have on schoolwork
- Special situations that confronts children with low vision
- Techniques and equipments that can be used by children with low vision to maximize the use of vision
- The available low vision devices
- How to help children with low vision use any low vision device effectively as possible in schoolwork and leisure activities

District Low Vision Resource Centers (LVRC)
This is a fairly standard service that offers the basic low vision intervention by Vision Support Teachers (VST) and Ophthalmic Clinical officers (OCO). The VST conducts school-based screening programmes to identify children with visual impairments and refers them to OCO for basic ophthalmic medical evaluation.

If the OCO identifies the need for clinical low vision assessment, refraction and/or specialized treatments, which cannot be provided at the district level, the children are referred a leading private Eye hospitals (Kikuyu Eye Unit) as this is the only hospital that offer comprehensive low vision services in the country.

Hospital-based Low Vision clinic
As had been indicated, there is only one Eye hospitals that offer comprehensive low vision services in Kenya. In this hospital children referred from LVRC receive a comprehensive low vision exam by qualified Optometrist and Ophthalmologist and functional assessment by Low Vision Therapist. The identified vision problems are treated by surgery, medication, or corrective lenses. Most children vision problems are corrected during this phase.

Those identified to have uncorrectable visual problems are subjected to a comprehensive low vision examination evaluation which leads to prescription of any appropriate optical low vision devices, as well as the selection of glare control and non optical devices that are likely to help the child do functional tasks. Once the medical low vision intervention is completed, those with severe low vision are referred to special schools for the blind and those with moderate low vision are referred to the integrated programmes for the visually impaired.
**Schools for the blind and integrated programmes for the visually impaired**

When children are referred to schools for the blind or integrated programmes, the VST first involve the assessment of functional vision as applied to the usual task of routine schoolwork, leisure activities and activities of daily living. The information obtained through assessment of all the professionals in addition to the VST assessment is used to determine the individual low vision intervention plan. The intervention plan is developed in consultation with all the professionals involved in the initial assessment together with regular class teachers, parents and other relevant caretakers.

**The role of the VST in implementation of the low vision intervention plan**

Barraga (1980) documented with research findings that visual efficiency could indeed be improved in children through planned learning activities that would encourage optimal use of vision.

Once the low vision intervention plan has been completed, the VST develops a profile of the range of individual child’s needs, sets priorities for addressing those needs and determines ways to meet them.

To address these needs the VST applies the following strategies:

- Implementing visual efficiency training programme to compensate for impaired vision in different areas of functioning.
- Referring children back to low vision clinic for further assistance in meeting challenging needs identified during the training phase.
- Providing information on special visual needs to regular class teachers, parents and care takers.
- Addressing psychosocial needs.

The overall goals of these strategies are to maximize specific skills, self-esteem, education achievements and the quality of life through provision of a wide array of low vision intervention, going beyond the prescription of optical low vision devices.

**The success rate**

In 2005 a close monitoring of this programme was conducted by the Kenya Institute of Special Education in 15 districts in Kenya. The assessment involved 276 primary schools with a total enrolment of 944,442 pupils. 2670 children suspected to have visual problems were screened by VST, out of which 1200 were found to have some form of visual problems and were referred to OCO for basic ophthalmic evaluation. 400 children were identified to have severe visual problems and referred to Hospital based Low Vision Clinic for comprehensive assessment. 240 children were confirmed to have low vision and are currently receiving low vision intervention services in either school for the blind or integrated programmes for visually impaired children.
Going by this data, if the program is extended to all the seventy-two districts in Kenya, majority of children with low vision would receive the necessary low vision intervention services.

**Conclusion**
In the recent past low vision intervention services in Kenya have developed and expanded within the education and heath systems. Substantial progress has been made but more efforts should be made in order to reach EFA and Vision 2020 goals.

**References**