



Original Research Article

## Role of Efficient Field Workers in Prevention of Cataract Blindness through Community Outreach Programmes

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### ABSTRACT

**Aim:** The aim of this study is to evaluate eye care services being provided by active participation of efficient field workers through community outreach programmes, to ensure prevention of cataract blindness and restoration of high level of quality vision.

**Materials and methods:** This was a retrospective study done at R.L. Jalappa Hospital and Research Centre attached to SDUMC, Kolar from April 2006 to March 2013 to compare the productivity from the eye camps with respect to cataract yield, conducted during these years.

**Results:** The number of patients screened increased from 1864 in 2006 to 3333 in 2013 and the cataract surgery rate has been increased from 631 in the year 2006 to 1335 in the year 2013.

**Conclusion:** The efficient field workers, through community outreach programme, play a major role in conducting cataract camps, identifying the patients with cataract and getting them operated in tertiary centre like ours, thereby reducing the burden of blindness to the society.

**Key words:** field workers, outreach programmes, cataract blindness

### INTRODUCTION

Senile cataract is a major cause of avoidable blindness in the developing countries and is responsible for 50-80% of bilaterally blind people in India. There has been an international drive with the goal and guidelines for VISION 2020: the Right to Sight to increase cataract surgical services in order to reduce cataract backlog existing in developing countries. [1] India has launched nationwide blindness control programmes to reduce the burden of blindness.

Frequently, there has been underuse of cataract surgical devices, inspite of being

provided free of cost due to various barriers like rural dwelling, illiteracy, lack of knowledge about the condition and its cure, fear of surgery and no escort. Cataract surgery, being one of the most cost effective health interventions, should be made available to every individual and these barriers should be well tackled.

Achieving major public health impact requires that interventions reach a large share of those who need them and are effective and affordable. As more than 3/4<sup>th</sup> of Indian populations live in rural areas away from medical facilities, community

based interventions to increase service for transportation, to make available the experienced quality surgical care and follow up eye care services need to be planned and executed. Screening through outreach programmes, transportation and escorting of patients becomes an essential strategy as well as a challenge for reaching out to such diverse, dependent and an ignorant population. [2]

Social mobilization is the fundamental issue under any community program. [2] It is expected that health personnel including community link worker like Anganwadi workers, ASHA and motivated members of civil society play a critical role in this aspect by incorporation of educational intervention into these outreach programmes to instill the knowledge of common eye disorders, necessity of timely treatment with medications and surgery. This educational intervention which may increase eye care services usage by targeting mainly the rural population is brought about by employing field workers.

The aim of this study is to evaluate eye care services being provided by active participation of efficient field workers through community outreach programmes, to ensure prevention of cataract blindness and restoration of high level of quality vision.

## **MATERIALS AND METHODS**

This record based retrospective study was done at R.L. Jalappa Hospital and Research Centre attached to Sri Devaraj Urs Medical College, Kolar from April 2006 – March 2013 to compare the productivity of the eye camps before and after employment of efficient field workers.

During the years 2006-07 and 2007-08, camps were randomly organized without much prior publicity and proper propaganda through local community link workers. After

employing efficient field workers from 2008, it was aimed at conducting 6 to 8 camps per month covering the whole district of Kolar. Camps were planned for the whole year in January and a calendar enlisting the date and place of camps was distributed well in advance.

The field workers coordinate with local PHCs, local NGOs and the tertiary care hospital in organising cataract camps. The details of camps were made known to the general public by means of banners, posters, paper pamphlets, mike announcements and door to door campaign through field workers who coordinated well in the ground in an organized manner.

The patients were thoroughly screened at the camp place for the presence of cataract with vision testing and dilated fundoscopic examination following which all the patients undergo a random blood glucose test and blood pressure recording before they are selected and shifted to the hospital. The patients were well counselled regarding the surgery with the help of field workers who also escort those selected patients to the hospital. They were admitted one day prior to the surgery.

All these patients underwent (i) Complete eye examination including a detailed history of any previous ocular disease or surgery, (ii) Visual acuity recording by Snellen's chart, (iii) Direct and Indirect ophthalmoscopy, (iv) Slit lamp examination, (v) Keratometry, (vi) A scan, (vii) Lacrimal syringing and (viii) Intraocular tension recording.

A day before the surgery all patients were put on oral Co-trimoxazole twice daily and Ciprofloxacin 0.3% eye drops hourly. Preoperatively pupils were dilated with Tropicamide with Phenylephrine 0.5% or 1% drops along with Flurbiprofen 0.03% drops. Sensitivity to local anaesthetics was tested with lignocaine and bupivacaine test

dose and a written informed consent was taken from all the patients.

Patients were dilated with tropicamide (1%) next morning and underwent cataract surgery. They were discharged 48 hours after the surgery with steroid antibiotic combination eye-drops and dark goggles given for use at home along with instructions to be followed for proper care of the operated eye and were asked to follow up at 1 week and 6 weeks post-operatively. At six weeks follow-up, patients undergo careful refraction, fundus examination and best vision noted with further instruction if indicated.

## RESULTS

The Department of Ophthalmology in support with the institute conducts camps in the Kolar district and its surroundings. The financial assistance for conducting camps is borne jointly by the institute and the government under District Blindness

Control Scheme (DBCS). Kolar district has a total population of 15,36,401 out of which 10,56,328(68.75%) comprises of rural population and 4,80,073(31.25%) comprises of urban population. <sup>[3]</sup>

Introducing a better organized outreach programme with involvement of efficient field workers, the number of patients screened for cataract increased from 1864 in 2006 to 3333 in 2013. On analyzing, there has been a significant increase of around 78.8% in the past 7 years.

The cataract surgery rate has been increased from 631 in the year 2006 to 1335 in the year 2013. The analysis revealed that there has been a significant growth (111.5%) of cataract surgery rate in the year 2013 in relation to the year 2006.

The year wise, number of camps conducted, patients screened, counselled for cataract surgery and number of surgeries performed is summarized in table 1.

**Table 1: The year wise, number of camps conducted, patients screened, counselled for cataract surgery and number of surgeries performed.**

	Sl. NO	Year(april -march)	No. Of camps conducted	No. Of patients screened	No. Of patients counselled for cataract surgery	No. Of cataract surgeries performed
Before	1	2006-07	41	1864	684	631
	2	2007-08	48	2182	916	757
After	1	2008-09	59	2875	1224	1069
	2	2009-10	79	3017	1058	1037
	3	2010-11	86	3102	1121	1092
	4	2011-12	87	3222	1467	1430
	5	2012-13	85	3333	1354	1335



Picture 1:

Picture 1: Patients at the place of screening.



Picture 2(a)



Picture 2(b)

Picture 2(a) and 2(b): Patients being screened for the presence of cataract.



Picture 3: Patients being transported from the place of screening to hospital for undergoing cataract surgery.

## DISCUSSION

Senile cataract is one of the most common and a major cause of preventable blindness in India and is highly concentrated in rural areas due to inadequate access to eye care services. It is very important that this major shortfall is adequately fulfilled through various outreach programmes.

The term 'outreach' refers to a wide range of strategies and approaches aimed at providing services to individuals with minimal or no access to the clinic. [4] Outreach program is primarily targeted at the rural population where majority are either poor, illiterate or ignorant and have limited access to eye care services.

Field workers play a critical role in connecting the community with the healthcare service and hence rightly referred as community link workers.

Based on analysis of the study, it is clear that success of an outreach programme is directly dependent on the groundwork laid down by field workers. The essential element for any outreach programme is planning and it involves:

- (a) Zone of intervention: Its geographic and administrative boundaries, target population, other service providers along with their specific or complementary roles in the programme.
- (b) The nature and scope of the outreach programme.

- (c) The capacity of the base eye unit to initiate and sustain the outreach programme and absorb the expected increased workload.
- (d) The capacity of the sponsoring institution, to secure monetary support beyond the traditional three-year life span of most projects. The real challenge is to sustain them beyond the initial project life span,
- (e) The capacity of the team to relate to, partner and work with the community. All members of the outreach team should therefore be assessed and offered additional training. [4]

## CONCLUSION

The efficient field workers, through very well planned community outreach programmes, play a major role in conducting cataract camps, identifying the patients with cataract, counselling them for undergoing cataract surgery and getting them operated in a tertiary centre like ours, thereby reducing the burden of cataract blindness to the society and will help serve the purpose of VISION 2020.

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