# Prevention of Blindness

## *Role of Nurses*

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EYES are the gift of God. To keep them clean, healthy and guard them against accidents is our primary duty. To lose vision, totally or partially, is a tragedy and it is a pity to say that out of 18 million blind in the world 9 million are in India. To ensure that no citizen of India remains blind needlessly, the Government of India has launched a national programme for the prevention of visual impairment and control of blindness. Considering it as an important national problem, the Prime Minister, Mrs. Indira Gandhi, has given it a top most priority and included it in her Twenty-Point Programme. The success of this programme depends upon the wholehearted support of all personnel responsible to provide medical care in the country.

Nursing staff who commands respect and confidence of the community and recognizes, understands fundamental (health) needs of a person, sick or healthy and who knows how these needs can best be met, can play a vital role in promotive, preventive, curative and rehabilitative aspect of community ophthalmology.

### Educating the Patients

Nursing staff working in hospitals particularly in eye wards, O.P.D. or Obstetrics and Paediatrics wards can very effectively educate the patients, their relatives and Class IV employees by planned and incidental health teachings. Public Health Nurses, Lady Health Visitors, Auxiliary Nurse Midwives and Multipurpose Workers, while working in rural and urban health centres, hospitals and dispensaries, can impart scientific knowledge to the community—formal and informal leaders, teachers and students, Dais and mothers, etc., about the eye diseases, their causes, prevention, management and care of the eyes thereby persuading them to shed off their superstitions and unscientific beliefs.

Blind is a person who cannot count fingers at a distance of 1½ metres. The rate of blindness in India is 0.5 per cent and one of every hundred persons has ocular morbidity. 90 per cent blindness is preventable if we have skilled personnel at our disposal. Cataract (55-58 per cent), Trachoma and associated infections (20-25 per cent), small pox (3 per cent), malnutrition (2 per cent), injuries (1.25 per cent), Squint (1.25 per cent), Glaucoma (0.5 per cent) and others 18 per cent are the recognised diseases responsible for blindness in India. It is fortunate that the number three cause of blindness, i.e., Smallpox has been eradicated from the globe.

Cataract is a common eye disease of old age, however, also affecting young and even children and new born. Cataract which is an opacity of lens whether congenital, developmental, acquired, traumatic, senile or pathological, if treated properly in time can be completely cured and patient can have full vision to see and read but operation is its only treatment. Nursing staff can play a very important role in early detection of cataract by noticing the symptoms of cataract which are gradual and progressive loss of vision, object appears more than one, usually there is no headache and eye is not red. In the course of years, vision deteriorates to such an extent it becomes difficult to do the daily routine work. This stage is known as mature cataract, and the patient at this stage can see only he light of torch. If it is left untreated, complications of cataract will occur. With precaution and eye care the onset of cataract can be delayed. Routine eye examination once a year should be advised especially in elderly and diabetic persons. In postoperative Eye Wards Nursing staff can advise the patients to avoid sneezing (by pressing at junction of soft and hard parts of nose close to the tip), coughing or constipation. This will help avoid various complications, viz., vitreous prolapse.

With the advancement in the operative technique there is no need for the patient to lie on his back, he can turn to unoperated side. Patient should be advised to pass urine while lying and should not strain for stools. Fluid diet should be advised for first two days. Patient should be instructed not to bend head or lift anything from the ground. While discharging the patient, he should be advised to use medicines properly and go for regular checkup as instructed by the surgeon. In case of any pain or persistent redness of eye, he should not lose any time in consulting the Eye Surgeon. In the last but not the least patient should be explained that as the lens of eye has been removed by Eye Surgeon he should use spectacles as per advice by the Eye Surgeon after four to six weeks of operation, to have useful vision for seeing distant object or for reading.

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**Infection for Trachoma**

Trachoma is an infectious disease and spreads mostly by direct contact of healthy eyes of one person with infected eyes of another person and partly by indirect contact, e.g., towel, pillow soiled with infected discharge from the eyes of a trachoma patient. In communities where there is practice of applying "kajal" and "surma" to eyes, the disease is transmitted through the use of a common applicator (kajal rod/finger) by more than one person without properly cleaning it. In warm climate flies play an important role in transmission of the disease. Dust, dirt smoke predispose a person to trachoma infection. Nursing staff can educate the community regarding personal hygiene and advise them to clean and wash the eye with water, to use smokeless chulhas and dark goggles, umbrella or a piece of cloth on head, etc., to protect the eyes from dust, smoke and sunlight respectively. When a person is infected with trachoma the inner surface of upper eyelids become red and granules formed over the surface which looks like boiled sago. Patient feels discomfort and eye becomes watery, later on whitish spot appears on black portion of eye (cornea). The patient becomes extremely sensitive to glare of light. If not attended to in time, the person may become blind. In case one has trachoma infection or is suspected to have the disease, he should be advised to consult the doctor at the nearest hospital or Primary Health Centre. In case such facilities are not immediately available the next best thing to do is to wash the eyes properly with fresh water and apply some antibiotic ointment locally. In cases of acute conjunctivitis and trachoma there always exists a danger of contamination. Nursing staff of the Eye Department may profitably instill 30 per cent sodium sulpha acetamide (Locula) in their eyes as a prophylactic.

**Due to Malnutrition**

It is believed that in India there may be over one million cases of blindness due to malnutrition. Blindness due to deficiency of Vitamin 'A' and Protein is more common among children of the age group of one to five years. Vitamin 'A' is needed for a proper functioning of the eye. It is necessary for normal vision and for seeing in the dark and twilight. It also keeps sclera and cornea (white and black part of eye respectively) of the eye intact. A patient having Vitamin 'A' deficiency finds it difficult to see in dark (night blindness). On examination it is seen that sclera is dry, lustreless and have wrinkled or foamy patches (BITOT's Spot); cornea may have ulcer, white spot or may be all white leading to blindness of one or both eyes. Regular intake of food rich in Vitamin 'A', viz. dark green leafy vegetables, milk, mango, papaya, egg, carrots, or administration of 200,000 I.U. of retinyl palmitate in oil by mouth every six month to preschool children will prevent Vitamin 'A' deficiency. It will be the biggest contribution by Public Health Nurses in prevention of blindness if they educate the community to consume green leafy vegetables and provide prophylactic oral Vitamin 'A' to all the pre-school children in their territory.

If you take care of your eyes, they will take care of you. To ensure preservation of perfect sight it is necessary to guard our eyes against accidents and diseases. The eyes should get the very best care that one can give. No one better than Nursing staff can teach the community how to take care of eyes, therefore depending upon the convenience every opportunity must be utilized by them to teach the community:

1. Keep the skin around the eyes clear by washing it with soap and water. Washing at bed time is the best way as it removes the dust and dirt collected during the day.

. A separate individual towel for eyes and face should be used. Never touch the eyes with anything unclean or rough-finger, handkerchief or pencil. Infectious diseases like trachoma and others spread by such indirect contacts.

3. In case of any discomfort or suspected eye disease always consult immediately the nearest doctor in the hospital, Primary Health Centre or eye specialist instead of trying quacks. It is better to have periodic eye checkup and always avoid self-medication.

4. Do not expose the eyes to dust or very bright light.

5. Do not use "kajal", "surma" or any other material in the eyes unless prescribed by a doctor. If necessary one must use separate applicator for each person.

Eye accidents take place almost anywhere. When mishap occurs, remember that external appearance or pain is no true guide to the real damage done to the eye. An eye doctor must immediately be consulted. Fireworks, arrows, gulli danda (a typical Indian game) are among the few ones which are responsible for a large number of eye accidents among children and it is important to know that all these injuries can be avoided by taking little care.

"Eyes are the window of the brain through which one enjoys the best in the world," so save them from unnecessary strain by avoiding direct exposure to sunlight, reading books or magazines with fine prints. Reading in moving trains and buses or in lying position or in flickering or dim light should be avoided. The correct way of reading is to sit with a source of light coming over your left shoulder. This way the light will be coming from behind and there will be no shadow on the matter you are reading. Frequent rest should be given while reading or doing strenuous work by either closing the eyes or looking at a distant object.

To cure blind patients there exists a wide scope for the corneal grafting. For the benefit of the mankind nurses can educate the people in this regard and motivate them to donate eyes after death as early as possible.