

CAN WE PREVENT THE INCREASING PREVALENCE OF CATARACT AMONG THE ELDERLY?

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Impaired vision due to opacification of the crystalline lens is a frequent change in the eyes brought about by the ageing process. Lens opacities are known to affect about 95% of the population over the age of 65 to at least some degree, and may affect everybody who may live up to a ripe old age. It is also known that the prevalence is greater in the older age groups of the population than in the younger ones ⁽¹⁾. In general, the cataract of the eyes occurs in about 5% of the elderly population but is much more common in those suffering from Diabetes Mellitus ⁽²⁾. However, in the Framingham Study, the prevalences of cataracts were associated with age and reached 46% at ages 75 to 85 ⁽³⁾.

The existence of various physical impairments tend to increase with age and visual impairment is one of the most significant. In the European study, approximately 8% women and 6% men aged 65 years and above could not read newspapers or books and about 20% had some difficulty in reading ⁽⁴⁾. The presence of cataract would have contributed largely to the impaired vision, although other causes may also have been responsible.

Moving to the Western Pacific region, a four country study showed that, among the population aged 60 years and above, 47% had cataract in Fiji, 57% in Malaysia, 20% in the Philippines and 10% in the Republic of Korea ^(5,6). The large variation in the prevalence rate among these countries may be tentatively attributed to factors like different degrees of familiarity with the letters used for vision testing, varying degrees of literacy and varying levels of understanding of the test techniques and interpretations among the staff and the study population. Variations in age groups and diagnostic criteria may have also been partly responsible for the wide range in prevalence of cataract.

Focusing now on the Singapore scene, a population-based study done in 1987 showed that among the population aged 60 years and above, 10.1% had difficulty in seeing and the rate showed a gradually increasing

trend from 4.5% in the age group 60-64 to 19.8% in the age group 75 years above ⁽⁷⁾. The total range of ocular pathologies like cataract, glaucoma, senile macular degeneration, retinopathies and occlusion of the retinal vessels were the likely causes of the poor vision. Among the aged and aged sick residents living in the institutions, 10% had difficulty in vision and 0.5% were blind ⁽⁷⁾.

However, among the 3,337 elderly aged 55 years and above who attended the Senior Citizens' Health Care Centres (SCHCC) located in the HDB estates in Singapore for health screening from June 1986 to November 1989, 32% had visual problems and 16% had cataract ⁽⁸⁾. A more detailed study on this group is still

Table I
No. of Elderly attending the outpatient geriatric clinics for management of Chronic diseases.

Age group	Total No.	Elderly with No.	Cataract %
55 - 59	111	5	2.7
60 - 64	237	11	4.6
65 - 69	289	21	7.3
70 -74	204	15	7.4
75 +	210	33	15.7
Total	1, 501	83	-

impending. Among the 1, 051 elderly attending the outpatient geriatric clinics for the management of chronic diseases, seen by the Department of Health Service for the Elderly (HSE), 83 of them or 7.9% had cataract, 275 or 26.2% had Diabetes Mellitus and 25 or 2.4% had both Diabetes Mellitus and cataract. The prevalence of cataract by age group rose progressively from 2.7% in age group 55-59 to 15.7% in age group 75 years and above (Table I)

Visual problems causing impairment of independent living in the elderly is known to impose a heavy strain on the physical and financial demands on the family. For example in 1983, a population - based study in Singapore showed that in the past year, among the 7,219 respondents aged 55 years and above, 0.8% were hospitalised due to cataract and it rated as the 5th among the cause of diseases that required hospitalisation ⁽¹⁰⁾. Besides the incumbrance of hospitalisation, various states of morbidity and reduced quality of life may cause

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a setback for those suffering from cataract.

The total health care implications of an increasing prevalence rate of cataract in an increasing ageing population is very significant. We are aware that in Singapore, the elderly account for 18% of the hospital admissions compared with the rest of the population which is 8%⁽¹¹⁾. One way to contain health care costs is by resorting to innovative community-based strategies. Avenues in the areas of preventive health care, health education, community-based care provisions and family support systems would need to be developed and well integrated. Early non-invasive interventions like provision of appropriate spectacles, or low visual aids can be of value in many cases. A close follow-up, thorough and periodic routine vision screening programme for the elderly within a community-based setting has been known to be a possible and practical strategy. To support this idea, a routine vision screening programme has been developed for the community elderly in the SCHCCs run by HSE and the Home Nursing Foundation (HNF). The rationale in this programme is that early detection and intervention may prevent undue visual problems causing increasing dependency status of the elderly in future⁽¹²⁾. This also means that the management of Diabetes Mellitus should be upgraded to a higher level to reduce visual complications.

Specific treatment for cataract by surgery is usually indicated when it interferes with activities of the individual⁽¹⁾. In the intracapsular cataract extraction, the entire cataract and the surrounding capsule are removed in a single piece which removes the entire opacity. In extracapsular cataract extractions, the cataractous lens material and a portion of the capsule are removed. After the cataract removal, as the eye has decreased refractive

power, the vision is restored by eye glasses, cataract lenses or intraocular lenses. Eye glasses, being thick and heavy and providing excellent vision through the central portion and increasing apparent size of the object by 25%, introduce optical distortion and interfere with peripheral vision⁽²⁾. Contact lenses on the other hand, correct focus of the eye, permit central and peripheral vision and increase apparent object size by 6%. The intraocular lens is surgically placed in the eye and is expected to remain in place. It focuses both centrally and peripherally, increasing the object size to only 1%. This is the most preferred type of lens after cataract operation, provided there are no contra-indications⁽¹⁾.

Impaired vision often causes diminished quality of life through social isolation and depression among the elderly. The well being of the visually impaired is further hampered by negative ideas of ageing and the aged whereby visual problems are dismissed as a normal ageing process not requiring intervention. To prevent rising social and health care costs, all steps should be taken to prevent visual impairments. Strategically planned education programmes targetted towards the elderly and their families need to be well developed. This should touch on strategies for reactivation, resocialisation and reintegration of those with visual impairments into active life in their own surroundings with family, friends and neighbours around⁽¹³⁾. Only then will these offers of available services be beneficial if the elderly and their families are motivated to support and utilise them appropriately. An optimum outcome may only be realised through an effective educational programme of the people keen to participate and fully utilise the available community-based services for the prevention of visual impairment⁽¹⁴⁾.

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