



Gender and Blindness

in the Eastern Mediterranean Region

Globally about 50 million people are blind, and of this figure 64% are women. This equals an age-adjusted rate of 39% greater than for men. This figure could increase to 75 million by 2020 unless increased efforts are made to prevent blindness. Based on studies in Egypt, it has been estimated that the number of blind persons in Egypt will increase from the estimated 420 000 in 1980 to 868 000 by 2020, and that the crude blindness rate will increase from the estimated 1.8% in 1980 to 3.2% in 2020 [1]. It is estimated that 80% of blindness is preventable [2].

Gender, blindness and age

As life expectancy increases in countries of the Eastern Mediterranean Region, rates of blindness for women, and overall totals, can be expected to increase. This will be especially relevant for countries which still have a minimal difference in male/female life expectancy, such as Pakistan, in which life expectancy for females is actually slightly less than for males.

A community-based study of trachoma and blindness in a rural village in the Nile delta in Egypt found that 17% of residents over 50 years old were blind and 30% of residents aged over 60 were blind. Women had 13% excess blindness prevalence [1]. In a cluster sample survey in the Menoufia governorate in Egypt, in which 2426 individuals aged 50 and over were examined, 12% were blind; of these 38.3% were male and 61.7% were female [2].

A nationwide survey in Oman found a statistically significant difference in the prevalence of blindness between males at 0.8% and females at 1.4% [3]. The WHO defines blindness as a public health problem at the country level when the nationwide rate is 0.5% or more, and at community level when the rate reaches 1% or more.

Preventable blindness

Trachoma

The bacterium *Chlamydia trachomatis* is responsible for the infectious eye disease of trachoma and is a leading cause of blindness in developing countries. Trachoma infection rates are higher in girls and women, as are repeat infections that can lead to blindness. As primary caregivers, young girls and mothers are more exposed to the infectious agent present in the eye secretions of infants. Peak rates of infection occur in pre-school children, which at this age leads to higher rates of scarring, trichiasis and blindness. Trachomatous trichiasis is the stage of trachoma characterized by intumed eyelashes which abrade the cornea and leads to blindness.

In a recent Egyptian study, recurrence rates of trichiasis after surgery were 44.4% for women, and 37.7% for men [4]. These gender differences may be the result of women delaying surgery. Studies suggest that infection loads and rates of reinfection are higher among girls than in boys. Trachoma-related blindness has been found to be 2 to 4 times higher in women than in men [4].

A study in Oman found more blindness in women due to trachoma; out of 85 sampled blind women, 25 had trachoma-related blindness and out of 49 sampled blind men, 8 had trachoma-related blindness [3]. A hospital-based study in



the Islamic Republic of Iran found a similar number of trachoma and chlamydial infections for both sexes. Community-based studies usually find higher rates of trachoma for women who are not using hospital services [5].

Cataracts

It is likely that much of the excess blindness found in developing countries is due to cataracts, which can be cured by surgery. Cataract surgical coverage rates tend to be lower for females than males [6]. Factors attributed to women's lower rates of cataract surgery include the high cost of surgery, transportation difficulties in reaching hospital services, the perceived value of cataract surgery, lack of access to information on the disease and the surgery, and the fear of a negative outcome. In a rapid assessment of cataract surgical services in Pakistan, cataract surgical coverage was found to be 92% for males and 73% for females. Reasons cited for not having surgery included the unavailability of the procedure (18%) and the high cost (18%) [7].

Cataract programmes should reflect a higher uptake by women because their increased risk and higher life expectancy lead to greater cataract prevalence than in men. A limitation to existing cataract programme evaluations are that cataract surgical coverage rates often do not take into account the outcomes of the surgery.

References

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Male vulnerabilities

Some activities, especially in zones of conflict, expose males to greater risk of blindness than females. A study of male patients with injuries sustained while clearing mines found that three quarters of these men became functionally blind. None of the victims were wearing protective eye gear or clothing during mine clearing [8,9].

What research is needed?

Sex-disaggregated data are necessary to accurately evaluate access and utilization of eye-care services, as well as prevalence of blindness. Where eye-care services are underused, methods must be found to improve eye care service use of both males and females. More community-based studies are necessary in order to assess the prevalence of eye diseases and access to and use of eye-care services.

What interventions are needed to influence policy-making and the development of blindness prevention programmes?

Data must be disaggregated by sex and be based on evidence from population-based, in addition to hospital-based, studies. National and local prevention of blindness programmes should monitor cataract and trichiasis surgical coverage rates and outcomes of surgery by sex, and specific strategies are needed to reach women for the treatment of trichiasis and trachoma, including access to eye-care services and increased awareness. Strategies must be developed to address the barriers to accessing care. Peer motivators may be more effective than health workers in promoting the use of eye-care services.

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