Awareness of eye diseases in an urban population in southern India

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Objective To assess the level of awareness of eye diseases in the urban population of Hyderabad in southern India.

Methods A total of 2522 subjects of all ages, who were representative of the Hyderabad population, participated in the population-based Andhra Pradesh Eye Disease Study. Of these subjects, 1859 aged >15 years responded to a structured questionnaire on cataract, glaucoma, night blindness and diabetic retinopathy to trained field investigators. Having heard of the eye disease in question was defined as ''awareness'' and having some understanding of the eye disease was defined as ''knowledge''.

Findings Awareness of cataract (69.8%) and night blindness (60.0%) was moderate but that of diabetic retinopathy (27.0%) was low, while that of glaucoma (2.3%) was very poor. Knowledge of all the eye diseases assessed was poor. Subjects aged $\geqslant 30$ years were significantly more aware of all eye diseases assessed except night blindness. Multivariate analysis revealed that women were significantly less aware of night blindness (odds ratio (OR) = 0.78; 95% confidence interval (CI) = 0.63–0.97). Education played a significant role in awareness of these eye diseases. Study subjects of upper socioeconomic status were significantly more aware of night blindness (OR = 2.20; 95% CI = 1.29–3.74) and those belonging to upper and middle socioeconomic strata were significantly more aware of diabetic retinopathy (OR = 2.79; 95% CI = 2.19–3.56). Muslims were significantly more aware of cataract (OR = 2.36; 95% CI = 1.84–3.02) and less aware of night blindness (OR = 0.52; 95% CI = 0.42–0.64). The major source of awareness of the eye diseases was a family member/friend/relative suffering from that eye disease.

Conclusion These data suggest that there is a need for health education in this Indian population to increase their level of awareness and knowledge of common eye diseases. Such awareness and knowledge could lead to better understanding and acceptance of the importance of routine eye examinations for the early detection and treatment of eye diseases, thereby reducing visual impairment in this population.

Keywords: eye diseases; cataract; glaucoma; night blindness; diabetic retinopathy; awareness; knowledge, attitudes, practice; socioeconomic factors; epidemiologic studies; India.

Mots clés: œil, maladies; cataracte; glaucome; nyctalopie; rétinopathie diabétique; prise de conscience; connaissance, attitude, pratique; facteurs socio-économiques; études épidémiologiques; Inde.

Palabras clave: oftalmopatías; catarata; glaucoma; ceguera nocturna; retinopatía diabética; toma de conciencia; conocimientos, actitudes y práctica; factores socioeconómicos; estudios epidemiológicos; India.

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Introduction

Awareness of common eye diseases and their treatment can play an important role in encoura-ging people to seek timely eye care and can therefore help in reducing the burden of visual impairment.

Some studies on awareness of eye diseases in the developed world have been carried out (*1–4*) but no such information is available for the Indian population. However, awareness of cataract surgery in south India has been reported (*5*). We assessed the level of awareness of common eye diseases in the urban population of Hyderabad in southern India in the population-based Andhra Pradesh Eye Disease Study (APEDS) (*6*). This population has recently been reported also to have a high prevalence of blindness (*7*) and moderate visual impairment (*8*).

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Materials and methods

APEDS is a population-based epidemiological study of 10 000 people in four areas representative of the Indian state of Andhra Pradesh. The detailed methodology used in the study has been reported elsewhere (6–8), but briefly the sample size was determined based on the eye diseases of interest with the least assumed prevalence, and the power to detect odds ratios for risk factors (6). In the first stage, stratification was performed for the urban–rural distribution of the population by selecting one-quarter of the sample as urban and three-quarters as rural. Based on an expected recruitment rate of 85%, we selected 2954 subjects representative of the population of Hyderabad for the urban segment of APEDS in Hyderabad city using a multistage sampling procedure (6, 7). The blocks (clusters) in Hyderabad were stratified by socioeconomic status and religion (6, 7). A total of 24 clusters were chosen randomly to meet these stratification criteria. Systematic sampling was employed to select subjects in each cluster. The selected subjects were interviewed in detail before the clinical examination (6). Written informed consent was obtained before the examinations. Data from the urban segment of APEDS were collected in Hyderabad from October 1996 to June 1997. The study was approved by the Ethics Committee of the L.V. Prasad Eye Institute, Hyderabad.

Before the clinical examination, trained field investigators were used to record the responses of subjects aged >15 years to a structured questionnaire on awareness of eye diseases (6). The field investigators were trained in all the interview procedures of APEDS by the principal investigator (L.D.) and one of the co-investigators (R.D.). Interview procedures were further refined in the course of the pilot study. The eye diseases for which awareness was assessed were as follows: cataract, glaucoma, night blindness and diabetic retinopathy. The questionnaire was initially developed in English and all the questions were then translated into the two most common local languages, Telugu and Hindi, using a pragmatic approach to adapt the questionnaire for use in the target population. Terms used in the local languages for the eye diseases assessed were identified from eye-care personnel, patient counsellors and patients at the L.V. Prasad Eye Institute, Hyderabad. Subjects were asked if they had heard of the eye disease in question. Further questions on that particular disease were asked only if the subject responded positively. All the questions were open-ended. Those who had heard of the eye diseases were asked to "tell" what that eye disease was. The questionnaire contained a list of possible responses. The response given by the subject was marked by the field investigator against the response it most closely approached on the questionnaire. The response given by the subject was documented fully if it did not correlate with any of the responses listed on the questionnaire.

Having heard of the eye disease in question was defined as "awareness" and having some understanding of the eye disease was defined as "knowledge". The demographic associations of awareness and knowledge of all the eye diseases with age, gender, education, socioeconomic status and religion were assessed by univariate analyses followed by multiple logistic regression. The effect of each category of a multicategorical variable was assessed by keeping the first or the last category as the reference. Analyses were performed using SPSS software. The estimates were adjusted for the age and gender distribution of the Hyderabad population (9). Based on the rates in each cluster, the design effect of the sampling strategy was calculated for the estimates (10), and the 95% confidence intervals (CI) adjusted accordingly.

Results

A total of 2522 subjects were interviewed and examined in the urban segment of APEDS, representing a participation rate of 85.4%. Of these subjects, 1859 (73.7%) were aged >15 years. Data were missing for 16 of the subjects and the present article therefore presents the results of the analysis of the replies for 1843 of them. Of these 1015 (55.1%) were women, and 1159 (62.9%) were Hindus.

Awareness of cataract

A total of 1345 (73.1%) of the subjects were aware of cataract, an age–gender-adjusted prevalence of 69.8% (95% CI = 63.5–76.1%; design effect (DE) = 9.08). Multiple logistic regression analysis (Table 1) indicated that awareness of cataract was significantly higher among subjects aged $\geqslant 30$ years (odds ratio (OR) = 2.59; 95% CI = 2.02–3.32), among those whose educational level was $\geqslant$ class 6 (OR = 1.96; 95% CI = 1.47–2.60), and among Muslims (OR = 2.36; 95% CI = 1.84–3.02).

Responses to questions on cataract are presented in Table 2. Of the 1348 subjects who had an awareness of cataract, 202 (15.0%) also had knowledge of it, an age–gender-adjusted prevalence of 10.7% (95% CI = 8.1–13.4%; DE = 3.52). A total of 825 (61.3%) subjects reported a family member/friend/relative suffering from cataract as the source of their awareness; 1114 (82.8%) were aware that treatment for cataract was surgery; and 1112 (82.6%) were aware that it was possible to recover vision after cataract surgery. Only 421 (31.4%) subjects knew about intraocular lens implantation.

Awareness of glaucoma

A total of 45 (2.4%) subjects were aware of glaucoma, an age–gender-adjusted prevalence of 2.3% (95% CI = 0.9–3.7%; DE = 3.96). Application of multiple logistic regression (Table 1) indicated

Table 1. Association of awareness of cataract, glaucoma, night blindness, and diabetic retinopathy with age, sex, education, socioeconomic status and religion (n = 1843)

	Total	No. aware of cataract / No. aware of glaucoma	Odds ratio for being aware of cataract / glaucoma with multiple logistic regression	No. aware of night blindness / No. aware of diabetic retinopathy	Odds ratio for being aware of diabetic retinopathy / with multiple logistic regression
Age group (years)[a]					
16–29	452	278(61.5)[b]/6 (1.3)	1.00/1.00	289(63.9) / 98 (21.7)	1.00/1.00
30–39	465	342 (73.5)/ 17 (3.7)	2.17; *1.61–2.94*[c]/4.04; *1.51–10.75*	274(58.9)/ 127 (27.3)	1.03; *0.76–1.39*/ 2.38; *1.67–3.38*
40–49	395	307 (77.7)/ 7 (1.8)	2.77; *1.99–3.84*/2.24; *0.72–6.98*	216(54.7)/ 123 (31.1)	0.89; *0.65–1.22*/3.15; *2.19–4.54*
50–59	256	206 (80.5)/ 5 (2.0)	3.50; *2.36–5.20*/2.80; *0.80–9.78*	127(49.6)/ 101 (39.5)	0.77; *0.54–1.10*/6.12; *4.05–9.25*
60–69	183	144 (78.7)/ 6 (3.3)	3.25; *2.10–5.03*/7.66; *2.19–26.78*	81(44.3)/ 61 (33.3)	0.69; *0.46–1.03*/5.43; *3.43–8.65*
⩾70	92	71 (77.2)/ 4 (4.3)	3.18; *1.79–5.66*/11.88; *2.80–50.25*	41(44.6)/ 21 (22.8)	0.70; *0.42–1.18*/2.98; *1.59–5.57*
Sex[d]					
Men	828	619 (74.8)/ 29 (3.5)	1.00/1.00	523(63.2)/ 279 (33.7)	1.00/1.00
Women	1015	729 (71.8)/ 16 (1.6)	1.04; *0.82–1.32*/1.06; *0.53–2.13*	505(49.8)/ 252 (24.8)	0.78; *0.63–0.97*/1.16; *0.91–1.49*
Education (category)[e]					
I	561	375(66.8)/ 1 (0.2)	1.00/1.00	194(34.6)/ 48 (8.6)	1.00/1.00
II	278	199 (71.6)/ 2 (0.7)	1.31; *0.94–1.84*/3.95; *0.35–44.43*	131(47.1)/ 58 (20.9)	1.52; *1.11–2.07*/2.74; *1.77–4.23*
III	497	375 (75.5)/ 8 (1.6)	1.89; *1.39–2.58*/11.84; *1.41–99.42*	297(59.8)/ 157 (31.6)	2.24; *1.70–2.96*/5.78; *3.92–8.50*
IV	195	133 (77.8)/ 3 (1.8)	2.37; *1.48–3.80*/14.25; *1.36–149.19*	127(74.3)/ 76 (44.4)	4.20; *2.73–6.45*/10.86; *6.68–17.67*
V	24	19 (79.2)/ 0	2.34; *0.81–6.72*/0.07; *0 to >10^15*	17(70.8)/13 (54.2)	2.75; *1.08–7.02*/12.71; *5.02–32.18*
VI	191	150 (78.5)/ 13(6.8)	2.56; *1.61–4.07*/63.16; *7.21–553.17*	150(78.5)/ 108 (56.5)	4.37; *2.82–6.77*/18.70; *11.42–30.61*
VII	112	91 (81.3)/ 18 (16.1)	3.58; *1.97–6.50*/153.69; *17.13–1378.42*	107(95.5)/ 70 (62.5)	21.42; *8.34–55.0*/23.21; *13.0–41.43*
Socioeconomic status[f]					
Extreme lower	168	116 (69.0)/ 1 (0.6)	1.00/1.00	74 (44.0) / 20 (11.9)	1.00/1.00
Lower	652	469(71.9)/ 7 (1.1)	1.03; *0.70–1.53*/1.14; *0.13–9.65*	285 (43.7) /110(16.9)	0.86; *0.60–1.24*/1.16; *0.67–2.01*
Middle	772	568(73.6)/ 24 (3.1)	0.92; *0.61–1.38*/1.04; *0.12–8.50*	472 (61.1) /296 (38.3)	1.18; *0.82–1.71*/2.18; *1.27–3.73*
Upper	202	162(80.2)/ 13 (6.4)	1.21; *0.70–2.09*/1.21; *0.13–10.76*	167 (82.7)/ 98 (48.5)	2.20; *1.29–3.74*/2.10; *1.13–3.88*
Religion[g]					
Hindu	1159	785(67.7)/ 33 (2.8)	1.00/1.00	707 (61.0) / 322 (27.8)	1.00/1.00
Muslim	641	528(82.4)/ 10 (1.6)	2.36; *1.84–3.02*/0.73; *0.33–1.61*	285 (44.5)/ 191 (29.8)	0.52; *0.42–0.64*/1.26; *0.98–1.62*
Others	43	35 (81.4)/ 2 (4.7)	1.67; *0.74–3.76*/0.79; *0.16–3.79*	36 (83.7)/ 18 (41.9)	1.72; *0.73–4.07*/0.76; *0.38–1.53*

[a] $P <0.0001$ for cataract, night blindness and diabetic retinopathy, and $P = 0.19$ for glaucoma, χ^2 test in univariate analysis.

[b] Figures in parentheses are percentages.

[c] Figures in italics are the 95% confidence intervals.

[d] $P = 0.087$ for cataract, $P = 0.008$ for glaucoma, $P <0.0001$ for night-blindness and diabetic retinopathy, χ^2 test in univariate analysis.

[e] $P <0.0001$ for cataract, glaucoma, night blindness and diabetic retinopathy, χ^2 test in univariate analysis. Education categories defined as follows: I: no education; II: class 1–5; III: class 6–10; IV: class 11–12; V: technical course; VI: college; and VII: advanced studies. Data on education not available for 6 subjects for cataract, 5 subjects for night blindness and 1 subject for diabetic retinopathy.

[f] $P = 0.015$ for cataract, $P <0.0001$ for glaucoma, night blindness and diabetic retinopathy, χ^2 test in univariate analysis. Socioeconomic status defined according to monthly per capita income in Rupees: extreme lower ⩽200 (US$ 5.1), lower 201–500, middle 501–2000 and upper >2000. Data on socioeconomic status not available for 33 subjects for cataract, 30 subjects for night blindness and 7 subjects for diabetic retinopathy.

[g] $P <0.0001$ for cataract and night blindness, $P= 0.29$ for glaucoma, and $P = 0.09$ for diabetic retinopathy, χ^2 test in univariate analysis.

that awareness of glaucoma was significantly higher among subjects aged ⩾30 years (OR = 2.84; 95% CI = 1.18–6.83) and among those whose educational level was ⩾ class 6 (OR = 16.35; 95% CI = 2.17–122.96).

Responses to questions on glaucoma are presented in Table 3. Of the 45 subjects who were aware of glaucoma, 39 (86.7%) had knowledge of it, an age–gender-adjusted prevalence of 2.0% (95% CI = 0.76–3.17%; DE = 3.60). A total of 18 (40.9%) subjects reported a family member/friend/relative suffering from glaucoma as the source of awareness, and 21 (47.7%) were aware that vision loss due to glaucoma was permanent.

Awareness of night blindness

A total of 1028 (55.8%) subjects were aware of night blindness, an age–gender-adjusted prevalence of 60.0% (95% CI = 51.8–68.1%; DE = 13.19). Multiple logistic regression analysis indicated that awareness of night blindness was significantly higher among those belonging to the upper socioeconomic stratum (OR = 2.20; 95% CI = 1.29–3.74) and those with any level of education (OR = 2.29; 95% CI =

1.80–2.91). Awareness of night blindness was significantly lower among women (OR = 0.78; 95% CI = 0.63–0.97) and among Muslims compared with Hindus (OR = 0.52; 95% CI = 0.42–0.64).

Responses to questions on night blindness during childhood are presented in Table 4. Of the 1028 subjects aware of night blindness, 343 (33.4%) had knowledge of it, an age–gender-adjusted prevalence of 21.7% (95% CI = 13.84–29.58%; DE = 17.48). A total of 540 (52.5%) subjects were not aware that night blindness during childhood could be prevented.

Awareness of diabetic retinopathy

A total of 531 (28.8%) subjects were aware that diabetes can cause impaired vision (considered as awareness of diabetic retinopathy), an age–gender-adjusted prevalence of 27.0% (95% CI = 20.0–34.0%; DE = 11.97). Multiple logistic regression analysis indicated that awareness of the possibility of diabetes causing impaired vision was significantly higher among subjects aged $\geqslant 30$ years (OR = 2.36; 95% CI = 1.79–3.11), among those with any level of education (OR = 5.12; 95% CI = 3.65–7.17), and among those belonging to upper and middle socioeconomic strata (OR = 2.79; 95% CI = 2.19–3.56).

Responses to questions about whether diabetes could decrease vision are presented in Table 5. A total of 282 (53.0%) subjects reported a family member/friend/relative suffering from diabetes as the source of their awareness; 362 (68.2%) reported that decrease in vision due to diabetes was treatable; and 174 (34.3%) reported that a person with diabetes should undergo an eye check-up once every 6 months.

Discussion

To the best of our knowledge, these are the first population-based data on awareness of eye diseases in an Indian population. The data are of particular importance because we recently found that 1% of the population studied was blind (7), while a further 7.2% had moderate visual impairment (8).

Subjects aged $\geqslant 30$ years were significantly more aware of all the eye diseases assessed except night blindness. This is important because in the same population all cases of blindness were in people $\geqslant 30$ years of age (7). As expected, education played a significant role in the awareness of these eye diseases. The major source of awareness for cataract, glaucoma and diabetic retinopathy (the source of awareness for night blindness was not assessed) was a family member/friend/relative suffering from that particular eye disease.

Awareness of cataract was higher among subjects with an education level $\geqslant$ class 6. Muslims were more likely to be aware of cataract than Hindus. The reason for this is not clear, but it is of significance since the majority (57.7%) of the study population is Hindu (11). Even though the level of awareness of

Table 2. **Responses among those who were aware of cataract (n = 1348)**

Response	No. of responses
What is cataract?[a]	
A white spot in the eye	659 (48.9)[b]
A lens change where lens becomes opaque[c]	185 (13.7)
A white membrane growing over the eye	458 (34.0)
An age-related process leading to decrease in vision[c]	17 (1.3)
How did you come to know about cataract?[d]	
Doctor/ophthalmologist/optometrist/optician	106 (7.9)
Eye camp	5 (0.4)
Family member/friend/relative suffering from it	825 (61.3)
Family member/friend/relative not suffering from it	181 (13.4)
Television, magazines or other media	190 (14.1)
Others	39 (2.9)
How is it treated?[e]	
By medicines	65 (4.8)
By surgery	1114 (82.8)
Do not know	145 (10.8)
Others	21 (1.6)
Is it possible to get back vision from cataract blindness?[f]	
No	46 (3.4)
Yes	1112 (82.6)
Don't know	189 (14.0)
Do you know about intraocular lens implantation?[g]	
No	918 (68.5)
Yes	421 (31.4)

[a] Data not available for 29 subjects.
[b] Figures in parentheses are percentages.
[c] Considered as knowledge.
[d] Data not available for 2 subjects.
[e] Data not available for 3 subjects.
[f] Data not available for 1 subject.
[g] Data not available for 9 subjects.

cataract was reasonable, knowledge of cataract was poor. Of those who were aware of cataract, 49% defined it as a white spot "in" the eye. This is still reasonable since they knew that cataract is a disease that is "inside" the eye, as compared with the 34% who defined cataract as a white membrane growing "over" the eye. Most subjects were aware that the treatment for cataract is surgery and that it restores sight. Of those who were aware of cataract, 68% had not heard of intraocular lens implantation. This is of significance because the trend in India in cataract surgery is "believed" to be towards intraocular lens implantation. A study of cataract surgery in south India has reported that individuals who were likely to be more aware of cataract surgery tended to be male, literate and more affluent than those who were unaware of the option (5), a finding similar to that in Nepal (12).

Awareness of glaucoma among the study population was very poor. Two studies in Australia found a reasonable level of awareness of glaucoma but poor knowledge of the condition (2, 3). For

Table 3. **Responses among those who were aware of glaucoma (*n* = 45)**

Response	No. of responses
What is glaucoma?[a]	
High pressure in the eye	19 (48.7)
A disease where the nerve of the eye becomes weak	4 (10.2)
A damage to the nerve of the eye due to high pressure	7 (17.9)
An age-related process leading to decrease in peripheral vision	2 (5.1)
An age-related process leading to decrease in vision	7 (17.9)
How did you come to know about glaucoma?[c]	
Doctor/ophthalmologist/optometrist/optician	11 (25.0)
Family member/friend/relative suffering from it	18 (40.9)
Family member/friend/relative not suffering from it	2 (4.5)
Television, magazines or other media	9 (20.5)
Others	4 (9.1)
Is visual loss due to glaucoma permanent or reversible?[d]	
Permanent	21 (47.7)
Reversible	14 (31.8)
Don't know	9 (20.5)

[a] All responses considered as knowledge; data not available for 6 subjects.

[b] Figures in parentheses are percentages.

[c] Data not available for 1 subject.

[d] Data not available for 1 subject.

Table 4. **Responses among those who were aware of night blindness (*n* = 1028)**

Response	No. of responses
What is the common cause of night blindness during childhood?[a]	
Vitamin A deficiency[b]	171 (16.6)[c]
Vitamin deficiency[b]	132 (12.8)
Malnutrition[b]	40 (3.9)
Diarrhoea	1 (0.1)
Others	670 (65.2)
Can night blindness during childhood be prevented?[d]	
No	84 (8.2)
Yes	401 (39.0)
Don't know	540 (52.5)

[a] Data not available for 14 subjects.

[b] Considered as knowledge.

[c] Figures in parentheses are percentages.

[d] Data not available for 3 subjects.

glaucoma, early detection and prevention may prevent progression of the disease, but because of its "silent" nature early detection of glaucoma is difficult unless the patient undergoes an eye examination. Hence, an increase in the level of awareness of glaucoma in our population is essential if more people are to be screened for the condition. Even though the awareness of glaucoma was very poor, the finding of reasonable knowledge about it among the minority who were aware of the condition is encouraging.

Awareness of night blindness was reasonable in the study population but knowledge was poor. A majority (65%) of the subjects reported other causes (consanguineous marriage, congenital defects and heredity) as common causes of night blindness even though the question asked was specifically about night blindness in childhood, which is most commonly due to vitamin A deficiency in the developing world. Poor knowledge of the causes of night blindness in children is of concern because about 40% of the Indian population are aged ≤ 15 years (*9*). Awareness and knowledge of night blindness during childhood is important since vitamin A deficiency is common and is also associated with higher mortality in children (*13*). Vitamin A deficiency is reported to be largely confined to impoverished countries, neighbourhoods and families (*14*). Rahi et al. reported vitamin A deficiency to be the most common cause of childhood blindness in students in schools for the blind in nine states of India (*15*), but a population-based assessment of childhood blindness in southern India reported a low proportion of blindness due to vitamin A deficiency and attributed this to the fact that the area surveyed had a good agricultural economy (*16*). A bare majority (52.5%) of the subjects did not know whether night blindness during childhood was preventable or not. Those belonging to the extreme lower and lower socioeconomic strata were significantly less aware of night blindness, and they are more likely to have children with vitamin A deficiency. Muslims were significantly less aware of night blindness than Hindus. This is of significance since Muslims usually have more children than Hindus. Awareness of night blindness and vitamin A deficiency per se clearly has to be increased among those groups that are likely to be more susceptible to vitamin A deficiency. Women were less aware of night blindness and, since in the study population they are more often responsible for the family diet, particularly that of children, they must be targeted to increase their awareness of night blindness and vitamin A deficiency.

Awareness of the possibility of diabetes causing impaired vision was low in this population. Subjects belonging to the upper and middle socioeconomic strata were more likely to be aware of this. This may have been because these strata had better access to medical and diagnostic care. Among those who were aware that diabetes could impair vision, 34.3% responded that an eye check-up should be performed every 6 months, while a further 26.4% responded that the frequency of eye check-ups should depend on the degree to which vision has been affected by diabetes.

In conclusion, our data suggest that there is an urgent need for health education in the study population in order to increase their level of awareness and knowledge about common eye diseases. This is particularly important in a developing country such as India, with considerable investment in tertiary eye care. These data are for an urban population and based on these findings we would

expect that awareness and knowledge of eye diseases would be worse in rural India. Increasing the awareness and knowledge of common eye diseases could lead to an increase in understanding and acceptance of the importance of routine eye examination for early detection and treatment of such conditions, thereby reducing visual impairment and cost of eye care. These data could help to develop effective health education and information programmes to reduce visual impairment among the study population. ■

Acknowledgments

Table 5. **Responses among those who were aware that diabetes could cause decrease in vision (_n_ = 531)**

Response	No. of responses
How did you come to know about it?	
Doctor/ophthalmologist/optometrist/optician	79 (14.9)[a]
Family member/friend/relative suffering from it	282 (53.0)
Family member/friend/relative not suffering from it	49 (9.2)
Television, magazines or other media	104 (19.5)
Others	18 (3.4)
Is the decrease in vision due to diabetes treatable?	
No	49 (9.2)
Yes	362 (68.2)
Don't know	120 (22.6)
How frequently should a person with diabetes go for an eye check-up?[b]	
Once every 6 months	174 (34.3)
Once a year	30 (5.9)
Once every 2 years	2 (0.4)
Depending on how much vision has been affected by diabetes	134 (26.4)
Don't know	168 (33.1)

[a] Figures in parentheses are percentages.
[b] Data not available for 23 subjects.

Résumé

Sensibilisation aux maladies oculaires dans une population urbaine du sud de l'Inde

Objectif Evaluer le niveau de sensibilisation aux maladies oculaires d'une population urbaine d'Hyderabad, dans le sud de l'Inde.

Méthodes Au total, 2522 sujets de tous âges, représentatifs de la population d'Hyderabad, ont participé à l'étude en population de l'Andra Pradesh sur les maladies oculaires. Sur ce nombre, 1859 sujets >15 ans ont répondu à un questionnaire structuré sur la cataracte, le glaucome, la cécité nocturne et la rétinopathie diabétique en présence d'enquêteurs de terrain qualifiés. Le terme « sensibilisation » a été utilisé pour désigner le fait d'avoir entendu parler de la maladie oculaire en question et « connaissance » pour indiquer que le sujet avait une notion de la maladie.

Résultats La sensibilisation à la cataracte (69,8 %) et à la cécité nocturne (60,0 %) était moyenne et la sensibilisation à la rétinopathie diabétique (27,0 %) était faible tandis que la sensibilisation au glaucome (2,3 %) était très faible. Pour toutes les maladies évaluées, la connaissance était faible. Les sujets ⩾30 ans étaient significativement plus sensibilisés à toutes les maladies oculaires, à l'exception de la cécité nocturne. Des analyses multivariées ont révélé que les femmes étaient significativement moins sensibilisées à la cécité nocturne (odds ratio (OR) = 0,78 ; intervalle de confiance (IC) à 95 % : 0,63-0,97). L'éducation jouait un rôle important dans la sensibilisation à ces maladies oculaires. Les sujets d'un statut socio-économique supérieur qui étaient inclus dans l'étude étaient significativement plus sensibilisés à la cécité nocturne (OR = 2,20 ; IC 95 % : 1,29-3,74) et les sujets appartenant aux couches socio-économiques moyenne et supérieure étaient significativement plus sensibilisés à la rétinopathie diabétique (OR = 2,79 ; IC 95 % : 2,19-3,56). Les musulmans étaient significativement plus sensibilisés à la cataracte (OR = 2,36 ; IC 95 % : 1,84-3,02) et moins sensibilisés à la cécité nocturne (OR = 0,52 ; IC 95 % : 0,42-0,64). La principale source de sensibilisation à la maladie oculaire était un membre de la famille/ami/parent atteint de cette maladie.

Conclusion Ces données montrent la nécessité d'un travail d'éducation sanitaire pour accroître le niveau de sensibilisation de la population étudiée et sa connaissance des maladies oculaires courantes. Cette sensibilisation et cette connaissance pourraient contribuer à faire mieux comprendre et accepter l'importance des examens oculaires systématiques pour le dépistage précoce et le traitement des maladies oculaires, et réduire ainsi le nombre des malvoyants dans cette population.

Resumen

Conocimiento de las enfermedades oculares en una población urbana del sur de la India

Objetivo Evaluar el grado de conocimiento de las enfermedades oculares en la población urbana de Hyderabad, en el sur de la India.

Métodos Un total de 2522 individuos de todas las edades, representativos de la población de Hyderabad, participaron en un estudio poblacional sobre las

enfermedades oculares en Andhra Pradesh. De esos individuos, 1859 que superaban los 15 años de edad respondieron a un cuestionario estructurado sobre la catarata, el glaucoma, la ceguera nocturna y la retinopatía diabética. Rellenado por investigadores de campo formados al efecto, el cuestionario distinguía el «conocimiento» de la enfermedad ocular, definido como el hecho de haber oído hablar de ella, y la «comprensión» de la dolencia, esto es, el hecho de entender, aunque fuera someramente, la naturaleza de la enfermedad.

Resultados El conocimiento que se tenía de la catarata (69,8%) y de la ceguera nocturna (60,0%) era moderado, pero el de la retinopatía diabética (27,0%) era bajo, y el del glaucoma (2,3%), muy bajo. La comprensión de las enfermedades oculares evaluadas era escasa en todos los casos. Las personas ⩾ 30 años mostraban de forma significativa un mayor conocimiento de todas las enfermedades oculares evaluadas, con excepción de la ceguera nocturna. El análisis multifactorial reveló que las mujeres estaban menos al corriente de la ceguera nocturna (OR= 0,78; IC95%: 0,63-0,97). La educación influía de forma importante en el grado de conocimiento de esas enfermedades oculares. Así, el conocimiento de la ceguera nocturna era significativamente más frecuente entre las personas de nivel socioeconómico alto (OR = 2,20; IC95%: 1,29-3,74), y el de la retinopatía diabética, más frecuente entre las personas de nivel socioeconómico medio y alto (OR = 2,79; IC95%: 2,19-3,56). Entre los musulmanes se detectó un mayor conocimiento de la catarata (OR = 2,36; IC95%: 1,84-3,02) y un menor conocimiento de la ceguera nocturna (OR = 0,52; IC95%: 0,42-0,64). La principal razón de que las personas tuvieran conocimiento de una enfermedad ocular era la existencia de un familiar o amigo afectado por ella.

Conclusión Estos datos llevan a pensar que es necesario impartir educación sanitaria a la población estudiada, a fin de aumentar su grado de conocimiento y comprensión de las enfermedades oculares comunes. Esa sensibilización podría conducir a un mayor reconocimiento y aceptación de la importancia de los exámenes oculares sistemáticos para la detección y el tratamiento precoces de las enfermedades oculares, con la consiguiente reducción de los casos de pérdida de visión en esa población.

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