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Questionnaire-based survey on the importance of quality of life measures in ophthalmic practice

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Abstract

Purpose **To assess the awareness of the existence of quality of life (QOL) instruments and their perceived relative merit in the management of various eye conditions among ophthalmologists in the United Kingdom.**
Methods **A self-administered questionnaire was circulated among various grades of ophthalmologists attending a major UK ophthalmology conference. The respondents were asked to rank from a list in order of importance various tests of visual function in different ophthalmic conditions.**
Results **Distance and near visual acuity were consistently rated high with mean ranks lower than 4.0. Contrast sensitivity and reading speed were consistently rated as low in importance with mean ranks ranging from 4 to 5.8. QOL instruments were deemed to be of some importance in the management of cataract and to a lesser extent in the management of age-related macular degeneration. Only 2 respondents of 36 could name either a generic or a vision-specific QOL instrument.**
Conclusion **UK ophthalmologists appear to be unfamiliar with QOL measures, despite the fact that in health economics they have become the standard means of assessing the results of health care interventions and of prioritising funding. Notwithstanding the evolution of a variety of tests for the assessment of visual function, ophthalmologists still rely primarily on distance and, to a lesser extent, near visual acuity to plan their patient management. It is important to identify those tests of visual function that correlate best with the patient's ability to function in the seeing world, and to develop appropriate QOL instruments for use in ophthalmic disorders.**

Key words Quality of life instruments, Ophthalmic practice, Visual function

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Health professionals have increasingly come to realise that measures of health-related quality of life (QOL) are important tools that can complement and enhance the value of traditionally accepted tests of outcome in the evaluation of clinical interventions.[1] Such QOL instruments fall into two categories: *generic*, which are broadly applicable across disease states and severities, and *disease-specific*, which are designed to evaluate specific diagnostic states or patient populations.[2]

In ophthalmic practice the maintenance and restoration of visual function is the ultimate goal, and the outcome of all clinical interventions has traditionally been assessed by visual acuity measurements. It is recognised, however, that visual acuity alone is a poor indicator of the ability to perform vision-dependent tasks and often does not correlate with the patient's own perception of their visual handicap.[3,4] In recent years vision-specific (QOL) questionnaires have been used to assess the need for, and timing of, cataract surgery, and the results of such studies have major implications for current practice, as well as identifying the need for additional resources.[5,6] Despite this it would seem that they have not gained widespread acceptance in other spheres of ophthalmic practice. A questionnaire-based study was carried out among ophthalmologists in the United Kingdom to assess (a) awareness of the existence of QOL instruments and (b) their perceived relative merit.

Subjects and materials

A questionnaire was devised that asked practising ophthalmologists to rank, in order of importance, a number of tests of visual function including generic and vision-specific QOL instruments, against a panel of common ophthalmic ailments (Fig. 1). Respondents were also asked to name any generic and vision-specific QOL instrument of which they were aware. They were not asked to identify

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Please rank the following seven investigations in order of importance when assessing the effect of any management regime on the given conditions either in your own patients or in the literature (1 = most important; 7 = least important):

	Cataract	Glaucoma	ARMD	Diabetic retinopathy	Retinal detachment
Contrast sensitivity					
Near visual acuity					
Reading speed					
Distance visual acuity					
Visual field					
Quality of life (QOL) as assessed by a QOL questionnaire					
Ability to do daily tasks as assessed by a vision-specific questionnaire					

Please name a vision-specific QOL questionnaire:
Please name a generic QOL questionnaire:

Grade of ophthalmologist:

Thank you for your co-operation

Fig. 1. *Questionnaire employed to assess the perceived merit of tests of visual function in ophthalmic practice.*

themselves by name but information was requested on their current position within the health service, i.e. senior house officer (SHO), registrar or consultant. Fifty-five questionnaires were distributed in a random fashion at a major UK conference and respondents asked to complete them, taking approximately 2 minutes to do so.

Statistical methods

Questionnaires were analysed both with the response of all ophthalmologists grouped together and as two separate groups, viz. seniors (senior registrars, associate specialists and consultants) and juniors (registrars and senior house officers). The degree of internal consistency within the whole group and sub-groups of experts was measured by Kendall's coefficient of concordance (W).

Results

Of the 55 questionnaires distributed, a total of 45 were completed and returned (i.e. 82% response rate), but in 9 of these the respondents had made the mistake of ranking the conditions in order of importance, rather than the tests. Thirty-six correctly completed questionnaires were therefore available for analysis. These questionnaires had been completed by 4 SHOs, 11 registrars, 6 senior registrars, 4 associate specialists and 11 consultants. The mean ranks obtained for each investigation in each condition are shown in Table 1.

Both distance and near visual acuity were consistently rated highly (obtaining mean ranks lower than 4.0) by all grades of ophthalmologist. Only in the management of glaucoma was another investigation (viz. field of vision) considered the most important. QOL instruments were ranked high in cataract and age-related macular degeneration and were placed in middle-ranking positions for the other conditions. Two of the 36 respondents were able to name a vision-specific instrument and none a generic instrument.

Contrast sensitivity and reading speed were regularly rated as low in importance, with mean ranks ranging in value from 4 to 5.8. Visual field assessment was considered either of prime importance (with mean ranks <3.0 in glaucoma and retinal detachment) or of very minimal value in all remaining conditions. When the responses of seniors and juniors were analysed independently, although there were minor variations there was no statistical difference in the mean ranks of any investigation. Within each ophthalmic condition both sets of judges were agreed on the relative merits of the tests of visual function, as all calculated values of W

Table 1. *Mean ranks assigned for each investigation, where a score of 1 represents the most important and 7 the least important*

	Cataract	ARMD	Glaucoma	Diabetic retinopathy	Retinal detachment
Distance acuity	2.3	3.1	3.5	1.8	1.9
Near acuity	3.1	1.8	4.1	2.5	3.6
Generic QOL	3.6	3.9	4.7	4.6	4.4
Vision-specific QOL	3.0	3.4	4.7	4.6	4.3
Field of vision	6.3	5.9	1.2	4.6	2.9
Contract sensitivity	4.3	5.8	4.6	5.1	5.5
Reading speed	5.3	4.0	5.4	4.9	5.4

by group or sub-group for all ophthalmic conditions were highly significant ($p<0.001$).

Comment

The questionnaire was designed to assess the awareness of the existence of QOL instruments and their perceived relative merit in the management of various ophthalmic ailments. All respondents were participants at a major UK conference at which the majority of units in this country would be represented. Nevertheless, we acknowledge that attendees at the conference may not be truly representative of the ophthalmic community of the UK as a whole. In addition, although there was no pre-selection of respondents, they were not a truly random sample.

QOL instruments, when compared with traditional outcome measures, did not obtain high rankings in this questionnaire-based study. It was of note that they were considered more important than visual fields (except in glaucoma and retinal detachment), contrast sensitivity and reading speed by the entire group of ophthalmologists. This middle ranking may merely reflect the fact that some tests were considered definitely important and some definitely not, with QOL measures falling between the two extremes. The higher rank assigned by the respondents to QOL measures in evaluating the outcome in cataract sufferers may reflect the fact that almost all published information on the use of such measures in ophthalmic practice relates to patients undergoing cataract surgery.[5,6] Despite emerging evidence over the past decade that peak contrast sensitivity and reading speed are more sensitive indicators of central visual function than near or distance acuity,[7–9] the former tests were generally ranked as low in importance by the vast majority of respondents. This finding is probably a reflection of standard ophthalmic practice, with few units measuring contrast sensitivity or reading speed on a regular basis.

Although distance visual acuity is the most commonly measured parameter of visual function in ophthalmic practice, both psycho-physicists and ophthalmologists have come to recognise that this test alone does not necessarily reflect the ability of the individual to perform vision-related tasks.[3,4] In this respect QOL instruments have been increasingly gaining acceptance as outcome measures in ophthalmic interventions.[5,6] In health economics, QOL measures have become the standard means of assessing the results of health care interventions and, more controversially, the means of prioritising funding.[10] Both nationally and internationally most funding organisations now require a QOL and health economics dimension to any clinical trial. Despite this, it would appear from the inability of the respondents to name either a generic or a vision-specific QOL instrument that, in practice, the ophthalmic community remains unfamiliar with them.

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