Original Article

Use of subjective and objective criteria to categorise visual disability

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Context: Visual disability is categorised using objective criteria. Subjective measures are not considered. **Aim:** To use subjective criteria along with objective ones to categorise visual disability. **Settings and Design**: Ophthalmology out-patient department; teaching hospital; observational study. **Material and Methods**: Consecutive persons aged >25 years, with vision <20/20 (in one or both eyes) due to chronic conditions, like cataract and refractive errors, were categorized into 11 groups of increasing disability; group-zero: normal range of vision, to group-X: no perception of light, bilaterally. Snellen's vision; binocular contrast sensitivity (Pelli-Robson chart); automated binocular visual field (Humphrey; Esterman test); and vision-related quality of life (Indian Visual Function Questionnaire-33; IND-VFQ33) were recorded. **Statistical Analysis**: SPSS version-17; Kruskal-wallis test was used to compare contrast sensitivity and visual fields across groups, and Mann-Whitney U test for pair-wise comparison (Bonferroni adjustment; $P < 0.01$). One-way ANOVA compared quality of life data across groups; for pairwise significance, Dunnett T3 test was applied. **Results**: In 226 patients, contrast sensitivity and visual fields were comparable for differing disability grades except when disability was severe ($P < 0.001$), or moderately severe ($P < 0.01$). Individual scales of IND-VFQ33 were also mostly comparable; however, global scores showed a distinct pattern, being different for some disability grades but comparable for groups III (78.51 ± 6.86) and IV (82.64 ± 5.80), and groups IV and V (77.23 ± 3.22); these were merged to generate group 345; similarly, global scores were comparable for adjacent groups V and VI (72.53 ± 6.77), VI and VII (74.46 ± 4.32), and VII and VIII (69.12 ± 5.97); these were merged to generate group 5678; thereafter, contrast sensitivity and global and individual IND-VFQ33 scores could differentiate between different grades of disability in the five new groups. **Conclusions**: Subjective criteria made it possible to objectively reclassify visual disability. Visual disability grades could be redefined to accommodate all from zero-100%.

Key words: Blindness, disability evaluation, quality of life, visual acuity

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Visual function is commonly assessed in terms of visual acuity.[1,2] however, visual field and contrast sensitivity are also important.[3,4] Field loss is associated with falls and fractures;[3] contrast sensitivity is associated with performance in mobility tasks.[4,5] Another important measure is a subjective, quality of life assessment, since impaired vision significantly reduces participation in social and religious activities, activities of daily living, and mobility.[1,6-9]

In India, currently, only visual acuity and monocular visual fields are used to classify visual disability.[10] Thus, subjective measures that assess the effect of impaired vision on activities of daily living are not given any importance. This study aims to use subjective along with objective criteria to categorise visual disability. Our hypothesis is that subjective measures used alongside objective ones will better identify persons in greatest need of concessions and benefits. The findings of this study assume importance in the current scenario of straitened resources for people with visual disability.

Materials and Methods

This was a prospective, observational study conducted in the Ophthalmology out-patient department of this tertiary level teaching hospital over the period from November 2010 to December 2011. After ethical clearance from the Institutional Ethics Committee-Human Research, and written informed consent, consecutive patients aged >25 years with vision <20/20 (in one or both eyes) due to chronic conditions of eye were included. They were categorized based on the National Program for Control of Blindness (NPCB) definition of normal vision, low vision, economic blindness and social blindness into 11 groups [Table 1]; group-zero had normal range of vision in both eyes, while groups I-X had increasing visual disability in both eyes.[11] We planned to include at least 20 patients in each group. Patients not willing to participate in the study, those with acute conditions of eye precluding examination and cooperation or with decreased hearing or cognitive function such that they would be unable to understand the questionnaire or co-operate with the examination procedure, were excluded. Relevant history was recorded on a prepared proforma; objective measures of visual function included distance visual acuity, both presenting (with current refractive correction, if any) and best corrected visual acuity (BCVA; after a fresh refraction), monocularly and binocularly, recorded using Snellen's chart; contrast sensitivity, measured binocularly using Pelli-Robson chart;[12] and automated binocular visual field, measured with the Humphrey Visual Field Analyzer using Esterman Visual Field test (EVFT).[13] The subjective measure was vision-related quality of life (VRQOL), assessed using the Indian Visual Function Questionnaire-33 (IND-VFQ33).[14,15] To ensure uniformity and reliability of data collection, the interview was

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Table 1: Proposed visual disability classification based on the NPCB definitions of normal vision, low vision, economic blindness and social blindness

BCVA in the better eye	BCVA in the worse eye	Percentage of disability
Normal vision 20/20 to 20/60	Normal vision 20/20 to 20/60	None
Normal vision 20/20 to 20/60	Low vision <20/60 to 20/200	10
Normal vision 20/20 to 20/60	Economic blindness* <20/200 to 20/400	20
Normal vision 20/20 to 20/60	Social blindness† <20/400	30
Low vision <20/60 to 20/200	Low vision <20/60 to 20/200	40
Low vision <20/60 to 20/200	Economic blindness* <20/200 to 20/400	50
Low vision <20/60 to 20/200	Social blindness† <20/400	60
Economic blindness* <20/200 to 20/400	Economic blindness* <20/200 to 20/400	70
Economic blindness* <20/200 to 20/400	Social blindness† <20/400	80
Social blindness† <20/400	Social blindness† <20/400	90
No perception of light	No perception of light	100

BCVA: Best-corrected visual acuity, *or field of vision greater than 10 but no more than 20°, †or field of vision ≤ 10°, NPCB: National Program for Control of Blindness

conducted by the same person (GK) in a separate room away from other patients and relatives.

Scoring the quality of life data

The IND-VFQ33 has three scales. A 21-item section measures general function; a 5-item section measures psychosocial impact; 7-item section measures visual symptoms. The general functioning scale uses a five-point Likert score from least difficulty (not at all) to greatest difficulty (cannot do this because of poor vision). The visual and psychosocial impact items are assessed on a four point Likert score with least difficulty (not at all) to worst (a lot). For each of the three scales, a total score was calculated as the cumulative total of individual responses. This was then expressed as a percentage of the maximum score possible. Thus, after conversion, 100 represented the best possible score (no difficulty with any of the items in that scale) and 'zero' the worse score (maximum difficulty in that scale).

Statistical analysis

The data was entered in to an excel worksheet and SPSS version 17 used for statistical analysis. Descriptive statistics was used for socio-demographic data (age, gender, literacy status, occupation) and to describe prevalence of ocular and systemic diseases. For contrast sensitivity and visual fields, normality was checked and the data was found to be non-normal. Thus, Kruskal-wallis test was applied to compare distribution across the groups. For pair-wise comparison, Mann-Whitney U test was applied and P value was corrected using Bonferroni adjustment; $P < 0.01$ was considered as significant instead of 0.05. For analysis of quality of life, the influence of age on global quality of life scores was assessed using Pearson correlation; there was no significant linear ($r = 0.025$; $P = 0.712$; $N = 226$) or non-linear correlation ($P > 0.05$). Therefore, we did not adjust for age in the final analysis. Normality was fulfilled for the quality of life data, so one-way ANOVA test was used to compare distribution across the 11 groups for each of the three scales of IND-VFQ33, as well as the global score. First homogeneity of variance was tested by Levene statistic; ($P < 0.001$).This means assumption of equality of homogeneity of variance was not fulfilled. So, Welch test was applied; P value was 0.000 ($P < 0.001$). For pairwise significance Dunnett T3 test was applied (for unequal variances). Significance was taken as $P < 0.05$.

Based on global IND-VFQ33 scores across the 11 original groups, the groups were merged to generate 6 new groups. The tests described above for contrast sensitivity, visual fields and for global IND-VFQ33 scores, and scores of its three scales were repeated for these new groups.

Results

Two-hundred and twenty-six patients were included. Their average age was 54.01 ± 12.92 years (range 26–82; median 58); there were more females (134, 59.29%); many patients were illiterate (112, 49.6%) and another 38 (16.8%) had studied less than 5yrs; most were unemployed (169, 74.77%). Co-existent systemic diseases were present in 38 (16.81%) patients. The causes of decreased vision included cataract (279 eyes, 61.72%), uncorrected refractive error (63 eyes, 13.93%), pseudophakia with refractive error (23 eyes, 5.08%); posterior capsular opacification (22 eyes, 4.86%); glaucoma (16 eyes, 3.53%); optic atrophy (18 eyes, 3.98%); phthisis bulbi (8 eyes, 1.76%); retinitis pigmentosa (8 eyes, 1.76%); colobomatous microphthalmos (4 eyes, 0.88%); total leucomatous corneal opacity (2 eyes, 0.44%); tractional retinal detachment (2 eyes, 0.44%); and pseudophakic bullous keratopathy (1 eye, 0.22%).

The 11 groups were compared to see if any of the objective or subjective measures could differentiate between patients belonging to neighboring groups. Binocular contrast sensitivity could not do so except when disability was severe, in case of groups VIII, IX and X ($P < 0.001$ each, Table 2); automated binocular visual field scores were more sensitive and could differentiate between adjacent groups when the degree of binocular visual disability was moderate to severe [Table 2]. The individual scales (general functioning, psychosocial impact and visual symptoms) of IND-VFQ33 were mostly comparable between adjacent groups [Table 3]; however, when global scores were considered, significant differences were found between some neighbouring groups, while others had comparable scores [Table 4]. The data of adjacent groups that had comparable global scores were merged; thus groups II, III, and IV were merged (renamed group 234); and groups V, VI, VII, and VIII were merged (renamed group 5678; Table 4).

The new vision categories thus formed were re-evaluated using the same objective and subjective measures as before [Tables 5 and 6]. There was a significant difference in values between all neighbouring groups for binocular contrast sensitivity, global IND-VFQ33 scores and for the individual scales; however, binocular visual field scores were not

Table 2: Binocular contrast sensitivity and binocular visual field scores in different groups

Vision (better eye)	Vision (worse eye)	Binocular contrast sensitivity		Binocular visual field	
		Range Average±SD (median)	Difference between adjacent groups (*P* value)	Range average±SD (median)	Difference between adjacent groups (*P* value)
Group zero 20/20-20/60	20/30-20/60	0-2 1.40±0.324 (1.50)	zero:I (0.314)	88-100 98.85±2.700 (100)	zero:I (0.779)
Group I 20/20-20/60	<20/60-20/200	1-2 1.41±0.141 (1.43)	I:II (0.043)	90-100 98.40±2.780 (100)	I:II (0.023)
Group II 20/20-20/60	<20/200-20/400	1-2 1.33±0.101 (1.35)	II:III (0.717)	82-100 96.60±4.223 (98)	II:III (0.018)
Group III 20/20-20/60	<20/400	0-2 1.29±0.239 (1.35)	III:IV (0.204)	80-100 92.23±6.031 (92)	III:IV (0.013)
Group IV <20/60-20/200	<20/60-20/200	1-2 1.24±0.237 (1.20)	IV:V (0.215)	59-100 94.82±10.40 (99.50)	IV:V (0.444)
Group V <20/60-20/200	<20/200-20/400	0-2 1.12±0.288 (1.20)	V:VI (0.456)	69-100 94.82±8.307 (98)	V:VI (0.003)
Group VI <20/60-20/200	<20/400	0-2 1.01±0.368 (0.98)	VI:VII (0.904)	52-100 87.00±10.46 (89.00)	VI:VII (<0.001)
Group VII <20/200-20/400	<20/200-20/400	0-1 1.04±0.217 (1.05)	VII:VIII (0.174)	95-100 97.95±1.820 (98.50)	VII:VIII (0.009)
Group VIII <20/200-20/400	<20/400	0-1 0.85±0.381 (0.98)	VIII:IX (<0.001)	44-100 88.40±14.09 (91.50)	VIII:IX (0.005)
Group IX <20/400-Perception of light	<20/400	0-1 0.26±0.235 (0.15)	IX:X (<0.001)	40-94 74.20±17.88 (80)	IX:X (0.005)
Group X No perception of light		Not applicable		Not applicable	

*Mann-Whitney test, Significance taken at $p<0.01$, SD: Standard deviation

sensitively able to differentiate between groups in the middle of the new classification.

Discussion

This study stratified subjects into 11 groups; group-zero had normal range of vision in both eyes, while the other 10 (groups I-X) had increasing visual disability. The 10 categories of visual disability are based on the NPCB classification formulated in response to the current classification notified by the Ministry of Social Justice and Empowerment that does not cover all possible grades of poor vision in the 2 eyes.[10,11] While this shortcoming is overcome in the 10-group classification, there is no scientific rationale to endorse it.

In the current study, we tried to justify, using subjective and objective criteria, the 10-group classification of visual disability. However, the criteria we used could not distinguish between most groups in the middle of the classification. Perhaps when the entire visual spectrum, from normal vision in both eyes to complete blindness in both, is stratified into 11 groups, the visual difference between groups is relatively small and the criteria we used were unable to pick up small differences. The global scores of the IND-VFQ33 provided a means to modify the classification. The resulting 5-group model of visual disability is scientifically sound in that both subjective and some objective criteria can sensitively differentiate increasing grades of disability. Currently, the policy of the Ministry of Social Justice and Empowerment is that one-eyed persons are not entitled to concessions or benefits.[10,16] One-eyed persons, for this purpose are defined as those who have 20/20 vision in the better eye while the other eye has vision from counting fingers (at one-foot) to no vision; they are designated as having 30% disability. Only patients with visual disability ≥40% are entitled to concessions and benefits; these are patients who have vision of 20/60 to 20/120 in the better eye and 20/200 to nil in the worse eye, as per the current definition. In the proposed 10-group classification these persons would lie scattered in groups II to VII, while one eyed persons would lie in group III. In the 5-group compact classification, we notice that the group designated 234 includes one-eyed persons as well as many of the persons with 40% disability; the remaining with 40% disability as per current definition lie in group 5678. All persons in group 234 have comparable contrast sensitivity, binocular visual

Table 3: Scores of individual scales of the IND-VFQ33 in different visual groups

Vision (better eye)	Vision (worse eye)	General functioning scale score		Psychosocial impact scale score		Visual symptoms scale score	
		Range Average (SD)	Difference between adjacent groups* (*P* value)	Range average (SD)	Difference between adjacent groups* (*P* value)	Range Average (SD)	Difference between adjacent groups* (*P* value)
Group zero 20/20-20/60	20/30-20/60	91.7-100 96.13 (3.038)	Zero:I (0.001)	90-100 98.500 (2.856)	Zero:I (0.033)	75-100 88.214 (7.428)	Zero:I (0.315)
Group I 20/20-20/60	<20/60-20/200	82.1-96.4 90.83 (3.520)	I:II (0.114)	80-100 93.750 (4. 832)	I:II (0.001)	57.1-92.9 80.892 (9.070)	I:II (0.123)
Group II 20/20-20/60	<20/200-20/400	75.0-91.7 86.67 (4.514)	II:III (0.053)	70-95 85.250 (6.171)	II:III (0.986)	57.1-82.1 72.678 (6.881)	II:III (0.846)
Group III 20/20-20/60	<20/400	64.3-94.0 79.65 (7.904)	III:IV (0.476)	70-100 88.863 (7.857)	III:IV (1.00)	50-85.7 67.694 (8.641)	III:IV (1.00)
Group IV <20/60-20/200	<20/60-20/200	64.3-97.6 85.39 (6.933)	IV:V (0.064)	75-100 90.681 (8.351)	IV:V (0.133)	53.6-85.7 68.668 (9.150)	IV:V (1.00)
Group V <20/60-20/200	<20/200-20/400	73.8-86.9 79.60 (3.312)	V:VI (0.135)	70-95 83.181 (7.326)	V:VI (1.00)	53.6-75.0 65.909 (6.208)	V:VI (0.007)
Group VI <20/60-20/200	<20/400	57.1-82.1 74.70 (6.007)	VI:VII (0.991)	65-100 81.00 (9.403)	VI:VII (0.939)	42.9-71.4 57.142 (7.048)	VI:VII (0.027)
Group VII <20/200-20/400	<20/200-20/400	70.2-83.3 77.26 (3.937)	VII:VIII (0.127)	55-95 74.50 (12.343)	VII:VIII (1.00)	53.6-75.0 66.071 (7.816)	VII:VIII (0.148)
Group VIII <20/200-20/400	<20/400	57.1-81.0 71.61 (6.737)	VIII:IX (<0.001)	50-95 72.25 (10.447)	VIII:IX (0.009)	50-71.4 59.107 (6.073)	VIII:IX (0.158)
Group IX <20/400- perception of light	<20/400	11.9-77.4 41.79 (21.879)	IX:X (0.001)	25-85 54.00 (16.108)	IX:X (<0.001)	35.7-67.9 51.964 (8.232)	IX:X (<0.001)
Group X No perception of light		10.7-21.4 15.12 (2.944)	X:XI (0.001)	20-45 23.75 (6.858)	X:XI (<0.001)	75.0-78.6 77.500 (1.679)	X:XI (<0.001)

*Post Hoc test, significance taken at *P*<0.05, SD: Standard deviaton, IND-VFQ33: Indian Visual Function Questionnaire-33

field values, and IND VFQ33 scores. Thus, there is no scientific basis for allowing concessions to some (40% disabled) and not to others (30% disabled) in the same group 234. Since resources are limited, rather than include both 30% and 40% impairment in concessions and benefits, it might be more logical to allow these only to persons with disability greater than group 234; thus, the new cut off may be ≥50%, with 50% visual disability being that depicted in group V of the 10-group classification. A careful perusal of Table 7 reveals that there is minimal difference between 40% disability as it stands today and 50% as suggested by us.

The two proposed disability classifications (the 10-group and the compact 5-group) provide a scientific basis for the re-categorisation of visual disability; a sample is shown in Table 7. This table is loosely modelled on the existing visual disability categories.[10] The major advantage is that the proposed categories are dictated by subjective and objective measures; these categories may be useful for epidemiological studies from India that report on visual disability and blindness. The 10-group classification that stratifies visual disability into ten groups of increasing disability, with increments of 10% between groups, could be particularly useful when determining the degree of disability in a person with multiple disabilities; even small degrees of visual disability may contribute to the overall disability, making the person eligible for benefits and concessions.[10,11] This study brings out an important point with regard to persons who have no perception of light in both eyes; they had significantly poorer scores in all three scales of the IND-VFQ33 than patients with social blindness who still retained perception of light in one or both eyes. In the current classification, both would be awarded 100% disability. The findings of this study substantiate our earlier suggestion to award separate grades of disability to the two groups.[11] Thus, persons with no perception of light (incurably blind) could be awarded 100% disability, while bilateral social blindness with perception of light in any eye could be awarded 90% disability.

Table 4: Global IND VFQ-33 scores in different visual groups

Vision (better eye)	Vision (worse eye)	Global IND VFQ-33 score		New visual groups formed
		Range average±SD	Difference between adjacent groups* (*P* value)	
Group zero 20/20-20/60	20/30-20/60	87.87-100 94.81±3.54	zero:I (0.004)	Zero
Group I 20/20-20/60	<20/60-20/200	76.51-96.21 89.16±4.36	I:II (0.011)	1
Group II 20/20-20/60	<20/200-20/400	71.97-90.15 83.48±4.38	II:III (0.297)	234
Group III 20/20-20/60	<20/400	65.90-93.18 78.51±6.86	III:IV (0.794)	
Group IV <20/60-20/200	<20/60-20/200	71.21-94.69 82.64±5.80	IV:V (0.028)	
Group V <20/60-20/200	<20/200-20/400	71.97-83.33 77.23±3.22	V:VI (0.314)	5678
Group VI <20/60-20/200	<20/400	58.33-89.39 72.53±6.77	VI:VII (1.00)	
Group VII <20/200-20/400	<20/200-20/400	66.66-83.33 74.46±4.32	VII:VIII (0.121)	
Group VIII <20/200-20/400	<20/400	59.09-78.03 69.12±5.97	VIII:IX (0.001)	
Group IX <20/400-perception of light	<20/400	18.18-71.21 45.37±16.41	IX:X (0.02)	9
Group X No perception of light		25.75-35.60 29.65±2.71	IX:X (0.02)	10

*Post Hoc test; significance taken at $p<0.05$, SD: Standard deviaton, IND-VFQ33: Indian Visual Function Questionnaire-33

Table 5: Comparison of regrouped patients for binocular contrast sensitivity and visual field scores

Group	Binocular contrast sensitivity		Binocular visual field score	
	Range average±SD (median)	Difference between adjacent groups* (P value)	Range average±SD (median)	Difference between adjacent groups* (P value)
Zero	0.15-1.65 1.40±0.323 (1.50)	1:2 (0.314)	88-100 98.85±2.70 (100)	1:2 (0.779)
1	1.20-1.65 1.41±0.140 (1.43)	2:345 (0.008)	90-100 98.40±2.77 (100)	2:345 (0.006)
234	0.45-1.65 1.28±0.204 (1.35)	345:6789 (<0.001)	59-100 94.57±7.56 (98)	345:6789 (0.210)
5678	0.30-1.50 1.00±0.328 (1.05)	6789:10 (<0.001)	44-100 92.10±10.54 (96.00)	6789:10 (<0.001)
9	0.00-0.75 0.255±0.235 (0.150)	6789:10 (<0.001)	40-94 74.20±17.83 (80)	6789:10 (<0.001)
10	Not applicable	Not applicable	Not applicable	Not applicable

*Mann-Whitney test; significance taken at $P<0.01$

Our study had some limitations. Many of the causes of visual disability were treatable; however patients seeking visual disability certification will have irreversible causes of visual disability. Therefore, the quality of life scores described for our patients may not reflect the quality of life of patients with irreversible visual disability. Additionally, the findings pertaining to quality of life may not be applicable to patients living in other geographic areas of the country or in other parts of the world. The number of patients included in each group was limited to twenty; a larger sample size may elicit

more categorical results. In conclusion, using subjective criteria (global vision-related quality of life scores), we were able to reclassify visual disability such that objective criteria could differentiate between different grades of disability. Based on the findings of this study, the Ministry of Social Justice and Empowerment, Government of India, could consider changing the definitions of different degrees of visual disability to accommodate all degrees of disability from 10-100% as in the 10-group classification. The strengths of the 10-group classification have been enumerated earlier,[11] prime being that it follows the NPCB definitions of low vision and blindness, and is logical and easy to remember. In addition, the Ministry could award concessions and benefits to patients with ≥50% of visual impairment (as defined in the 10-group classification) rather than to those with ≥40% impairment.

Future work could focus on developing an algorithm in which each area of the visual field is allocated a different percentage score according to its importance in tasks of daily living; thus, residual visual fields could be defined not only as a percentage of the total field, but also as a percentage of the total 'practically useful' field. Likewise, near vision could be used as a measure to assess disability since many tasks of daily living are dependent on near vision.

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Table 6: Comparison of regrouped patients for IND-VFQ33 scores: Global and individual scales

Group	Global score		General functioning scale score		Psycho-social impact scale score		Visual symptoms scale score	
	Range average±SD	Groups (*P* value)	Range average±SD	Groups (*P* value)	Range average±SD	Groups (*P* value)	Range average±SD	Groups (*P* value)
Zero	87.9-100 94.81±3.54	1:2 (0.001)	91.7-100 96.13±3.03	1:2 (<0.001)	90-100 98.50±2.85	1:2 (0.007)	75-100 88.21±7.42	1:2 (0.077)
1	76.5-96.2 89.16±4.36	2:345 (<0.001)	82.1-96.4 90.83±3.52	2:345 (<0.001)	80-100 93.75±4.83	2:345 (0.005)	57.1-92.9 80.89±9.07	2:345 (<0.001)
234	65.9-94.7 81.48±6.12	345:6789 (<0.001)	64.3-97.6 83.81±7.24	345:6789 (<0.001)	70-100 88.36±7.76	345:6789 (<0.001)	50-85.7 69.58±8.46	345:6789 (<0.001)
5678	58.3-89.4 73.43±5.93	6789:10 (<0.001)	57.1-86.9 75.88±5.88	6789:10 (<0.001)	50-100 77.87±10.80	6789:1011 (<0.001)	42.9-75.0 62.15±7.79	6789:10 (<0.001)
9	18.2-71.2 45.37±16.41	10:11 (0.006)	5.9-77.8 41.19±22.71	10:11 (0.001)	25-85 54.00±16.10	10:11 (<0.001)	35.7-67.9 51.96±8.23	10:11 (<0.001)
10	25.8-35.6 29.65±2.71	10:11 (0.006)	10.7-21.4 15.11±2.94	10:11 (0.001)	20-45 23.8±6.85	10:11 (<0.001)	75-78 77.50±1.67	10:11 (<0.001)

*Post hoc test; significance taken at *P*<0.05, SD: Standard deviation, IND-VFQ33: Indian Visual Function Questionnaire-33

Table 7: Categories of visual disability, current and proposed

Categories currently in use				Categories based on this study#		
Category	Better eye*	Worse eye*	Percentage impairment	Better eye*	Worse eye*	Percentage impairment
0	20/30-20/60	20/80 to 20/120	20	20/20-20/60	<20/60-20/200	10
I	20/60-20/120	20/200 to Nil	40	20/20-20/60	<20/200-20/400	20
				20/20-20/60	<20/400-no PL	30
				<20/60-20/200	<20/60-20/200	40
II	6/40-4/60 or field of vision 10°-20°	20/400 to Nil	75	<20/60-20/200	<20/200-20/400	50
				<20/60-20/200	<20/400-no PL	60
				<20/200-20/400	<20/200-20/400	70
				<20/200-20/400	<20/400-no PL	80
III	20/400 to 1/60 or field of vision 10°	FC at 1 ft. to Nil	100	<20/400-PL+	<20/400-no PL	90
IV	F.C. at 1 ft. to Nil or field of vision 10°	FC at 1 ft. to Nil	100	No PL	No PL	100
One eyed persons	20/20	FC at 1 ft. to Nil or field of vision 10°	30	20/20-20/60	<20/60-20/200	10
				20/20-20/60	<20/200-20/400	20
				20/20-20/60	<20/400	30

*With correcting lenses, FC: Finger counting, #Field of vision <10° or 10-20° as in the current categories

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