**Supplementary Table 1. Chinese classification standards for visual impairment**

| Category     | Grade | Good eyes have the best corrected vision |
|--------------|-------|------------------------------------------|
| Blind        | Grade 1 | No light perception ~<0.02, Sight radius<5° |
|              | Grade 2 | 0.02~<0.05, Sight radius<10°             |
| Low vision   | Grade 3 | 0.05~<0.1                               |
|              | Grade 4 | 0.1~<0.3                                |

Note: Best corrected visual acuity refers to the best visual acuity achieved after correction with lenses.
Supplementary Table 2. Distribution of the demographic characteristics of the research participants.

| General Characteristics | N   | Percentage (%) |
|-------------------------|-----|----------------|
| Age (years)             |     |                |
| 8-9                     | 24  | 10.62          |
| 10-11                   | 20  | 8.85           |
| 12-13                   | 76  | 33.63          |
| 14-15                   | 41  | 18.14          |
| 16-17                   | 48  | 21.24          |
| 18                      | 17  | 7.52           |
| Gender                  |     |                |
| Male                    | 167 | 73.89          |
| Female                  | 59  | 26.11          |
| place of residence      |     |                |
| Urban                   | 80  | 35.4           |
| Rural                   | 146 | 64.6           |
| Type of medical insurance |   |                |
| Urban residents' basic medical insurance | 103 | 45.58 |
| New rural cooperative medical insurance | 77  | 34.07 |
| Level 1                 | 105 | 46.46          |
| Level 2                 | 66  | 29.2           |
| Grade of disability     |     |                |
| Level 3                 | 40  | 17.7           |
| Level 4                 | 15  | 6.64           |
| Whether to wear a visual aid or not |       |                |
| Yes                     | 83  | 36.73          |
| No                      | 143 | 63.27          |
| Per capita household income |     |                |
| <1000RMB                | 66  | 29.2           |
| 1000-3000RMB            | 97  | 42.92          |
| 3000-5000RMB            | 39  | 17.26          |
| >5000RMB                | 24  | 10.62          |
| Total                   | 226 | 100            |