Comparison between telephone interview and self-completion of the MacDQoL

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Introduction

Macular degeneration (MD):

- is a chronic, progressive, usually untreatable eye condition.

- is the leading cause of blindness in the Western world.

- mainly affects people over 55 years. Incidence increases with age.

- causes loss of central vision needed for reading, driving, face recognition and other tasks requiring fine definition. Peripheral vision is retained but vision loss can be sufficient for registration as blind.
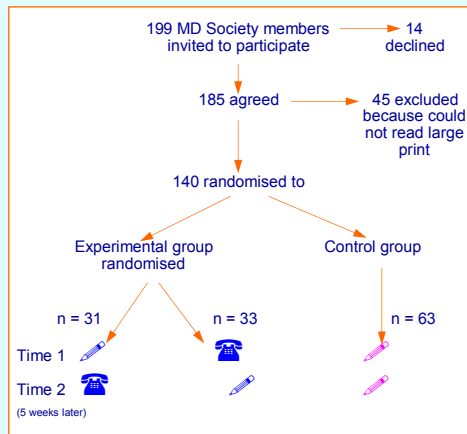
The MacDQoL questionnaire:

- is an individualised measure of the impact of MD on quality of life (QoL).[1]

- has 2 overview items:

    ⇒ present QoL (*In general, my present quality of life is*):
    range +3 (excellent) to -3 (extremely bad)

    ⇒ MD-specific QoL (*If I did not have MD, my QoL would be*):
    range –3 (very much better) to +1 (worse)

- has 26 items addressing aspects of life likely to be impacted by MD. Each item elicits both impact and importance ratings which are multiplied to give a weighted impact score for each item: range -9 (high negative impact of MD on that aspect of life) to +3 (positive impact of MD on that aspect of life).

- Some items have a 'not applicable' option (e.g. family life). A single, average weighted impact score (AWI) can be computed from the weighted impact scores of all applicable items.

- is designed for self-completion by people with visual impairment. Some people cannot read because of their MD and must complete the MacDQoL by other methods.

The Study:

- It would be helpful to be able to offer more than one completion method in the same study, with self-completion using pen and paper (✏) where possible and interview (☎) methods with participants who cannot read. Other research found that participants reported poorer vision-related QoL when self-completion was used than they did with telephone or face-to-face interviews.[2]

- This study investigated the equivalence of self-completion and telephone interview.

Methods

199 MD Society members invited to participate → 14 declined

185 agreed → 45 excluded because could not read large print

140 randomised to

Experimental group randomised → Control group

n = 31   n = 33   n = 63

Time 1 ✏   ☎   ✏

Time 2 ☎   ✏   ✏
(5 weeks later)

Results & Discussion

- 127 people completed the MacDQoL on two occasions, 5 weeks apart (mean age = 78 years, 79% women).

- Self-completion and interview scores of the experimental group (within-subject) were not equivalent for AWI or the present QoL scores (Table 1).

- Control group scores at times 1 and 2 did not differ (Figure 1).

	✏ Mean (sd)	☎ Mean (sd)	T-value (df)
Present QoL overview	0.89 (0.78)	1.14 (0.85)	3.24 (63)*
MD-specific overview	-2.22 (0.81)	-2.11 (0.96)	1.15 (63)
AWI	-4.07 (2.18)	-3.25 (1.94)	5.82 (63)**

Table1: Experimental group mean scores of present QoL, MD-specific QoL and AWI for two completion methods and t-tests. * p = 0.002, ** p < 0.001

- Mixed design ANOVA (experimental group only):

- ⇒ Main effect of completion method ($F_{[1, 62]}$ = 6.73, p = 0.012).

- ⇒ Main effect of time of completion (Time 1 or Time 2) ($F_{[1, 62]}$ = 19.39, p < 0.001).

- ⇒ Interaction between time and completion method ($F_{[1,62]}$ = 21.37, p < 0.001), with a larger difference between self-completion and telephone interview scores when telephone interview was at Time 1 (Figure1).
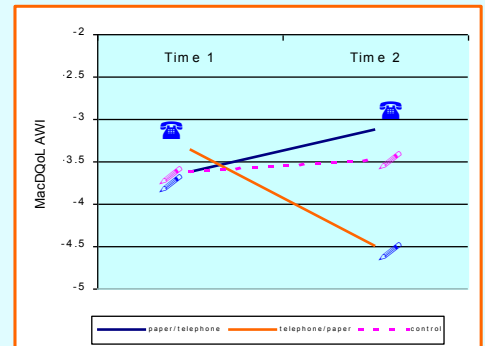

Figure 1: Mixed model ANOVA: comparison of self-completion and telephone interview AWI scores.

- Participants in the experimental group reported better QoL by telephone than by self-completion. Possible explanations are:

- ⇒ Telephone interview is pleasant, causing people to view their situation more favourably.

- ⇒ Telephone respondents may wish to be seen as coping well with their condition[2] or there may some social desirability bias in responding.[3]

- ⇒ Self-completion may be difficult for visually impaired people. Responses may be biased because of the effort of responding by this method.

- ⇒ Cognitive biases[4] may cause a primacy effect in paper questionnaires and a recency effect when response options are presented orally. Our findings were consistent with this explanation.

- ⇒ The greater difference in scores of the telephone/self subgroup may be due to self-completion seeming more difficult after the easier telephone interview. Those participants may have felt impatient with self-completion and, wishing to complete the questionnaire quickly, may have marked items earlier in the list of response options. The earlier items indicate a higher negative impact of MD on QoL.

Conclusions

- The MacDQoL does not provide equivalent scores when different implementation methods are used with the same individual.

- It may not be appropriate to mix implementation methods in a single study.

- If telephone interviews were used only for more severely visually impaired people, they may under-report the impact of MD on QoL and mask a real difference in QoL associated with severity of MD.

References

1 Mitchell J, Bradley C.(2004). Design of an individualised measure of the impact of macular disease on quality of life (the MacDQoL). *Quality of Life Research*; **13** (6): 1163-75.

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3 Oppenheim AN (1968). *Questionnaire design and attitude measurement.* London: Heinemann Educational.

4 Krosnik J (2000). The threat of satisficing in surveys: the shortcuts respondents take in answering questions. *Survey Methods Centre Newsletter*; 20: 4-8.

Acknowledgements

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