

# Design of an individualised measure of the impact of diabetes on the quality of life of elderly people: the ADDQoL Senior

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## Introduction

Diabetes affects 6-9% of people over the age of 65 in the UK<sup>1</sup> (25% in care homes<sup>2</sup>). The ADDQoL measure of the impact of diabetes on the quality of life (QoL) of adults has been shown to have good evidence for validity, reliability and sensitivity to change<sup>3-5</sup>. A review of the ADDQoL early in 2003 and development of similar questionnaires to measure the impact of eye conditions, such as macular disease (MacDQoL)<sup>6</sup> and diabetic retinopathy (RetDQoL)<sup>7</sup> indicated that the ADDQoL could be further improved to facilitate completion by elderly people, particularly those living in care homes.

## Methods

- The ADDQoL was modified to create the ADDQoL Senior [Figure 1] on the basis of MacDQoL/RetDQoL work and considering care home residents' circumstances.
- The ADDQoL Senior was pilot-tested in tape-recorded interviews with 3 care home residents (1 man & 2 women with Type 2 diabetes) in England. Interviews explored ways in which the ADDQoL Senior could be improved

Figure 1: Pre-interview modifications

- Enlarged font (from 11pt to 14pt)
- Horizontal response format replaced with vertical format and dot leaders (easier for those with visual impairment)
- Only 2 domains per page
- Rarely used positive impact options (i.e. QoL improved by diabetes) reduced to only one level of 'positive' impact
- 'Not applicable' options replaced with starter questions (e.g. 'do you have family/relatives?' 'yes/no')
- 'Holiday or leisure activities' split into two items to reflect greater amount of leisure time for retired people
- 'Spiritual/religious life' added
- 'Working life' removed

Table 1: Participant characteristics

Age:	mean 81 years (69-91 years)
Ethnicity:	all white; first language English
Duration of diabetes:	mean 9 years (1.5-16 years)
Treatment:	1 insulin & tablets, 1 tablets, 1 said "no treatment"
Insulin injected:	1 by district nurse, 2 not applicable
Tablets counted out by:	2 care home staff, 1 not applicable
Blood glucose testing:	1 by district nurse, 1 by senior nurse, 1 by care home staff (not done recently - urine testing more often)
Meal choice:	same as everyone else (all)

## Results & Discussion

Figure 2: Post-interview wording changes

Original item	Modification (changes in italics)
1. leisure activities	<i>interests and pastimes</i>
2. local or long distance journeys	<i>I could get out and about (e.g. on foot, or by car, bus or train)</i>
3. holidays	no change
4. do physically	no change
5. family life	no change
6. friendships and social life	no change
7. close personal relationship	<i>relationships with people I see most days</i>
8. sex life	no change
9. physical appearance	no change
10. self-confidence	no change
11. motivation	item removed
12. spiritual or religious life	no change
13. the way people in general react to me	item removed
14. my feelings about the future	no change
15. my financial situation	no change
16. I would have to depend on others (when I do not want to)	<i>I would be able to do things for myself</i>
17. living conditions	no change
18. freedom to eat as I wish	no change
19. freedom to drink as I wish	no change

The three interviewees could not read the ADDQoL Senior due to impaired vision but completed it easily when read aloud. A fourth resident was recruited but denied that she had diabetes at all and was excluded from the pilot. Self-reported demographic and treatment characteristics are provided in Table 1.

Following the pilot interviews, four items were modified to be more relevant to elderly people and two items were removed completely [Figure 2].

## Conclusions

The ADDQoL Senior now includes:

- 2 overview items: 'present QoL' & 'diabetes-specific QoL'
- 17 domains relevant to elderly people with diabetes formatted to be more suitable for elderly people (especially those with visual impairment).

Psychometric properties will be evaluated in a study of care home residents currently being conducted by Sinclair and colleagues.

## References

- Croxson SCM et al (1991) The prevalence of diabetes in elderly people. *Diab Med.* 8, 28-31.
- Sinclair AJ et al. (2001) Prevalence of diabetes in care home residents. *Diab Care.* 24, 1066-68
- Bradley C et al (1999) The development of an individualised questionnaire measure of perceived impact of diabetes on quality of life: the ADDQoL. *Qual Life Res.* 8, 79-91.
- Bradley C & Speight J (2002) Patient perceptions of diabetes and diabetes therapy: assessing quality of life. *Diabetes/Metab Res & Reviews.* 18, S64-S69.
- DAFNE Study Group (2002) Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: Dose Adjustment For Normal Eating (DAFNE) randomised controlled trial. *Br Med J.* 325, 746-749 (abridged version; full paper available at [www.bmj.com](http://www.bmj.com)).
- Mitchell J & Bradley C (in press 2003) Design of an individualised measure of the impact of macular disease on quality of life (the MacDQoL). *Qual Life Res.* 12.
- Woodcock A et al (in press) The influence of diabetic retinopathy on quality of life. Interviews to guide the design of a condition-specific, individualised questionnaire: the RetDQoL. *Pat Educ Couns.*

## Acknowledgements

We thank Professor Alan Sinclair of the University of Warwick for contributing to the funding of this work. We also thank Professor Sinclair's colleague, Dr Sofia Llahana, and the manager of the care home for arranging access to residents. Finally, we thank the residents themselves for their participation.

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