Social Science & Medicine 67 (2008) 874–882

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Valuing the ICECAP capability index for older people☆

Joanna Coast [a,*], Terry N. Flynn [b], Lucy Natarajan [c], Kerry Sproston [c], Jane Lewis [c], Jordan J. Louviere [d], Tim J. Peters [b]

[a] University of Birmingham, Department of Health Economics, Public Health Building, Birmingham B15 2TT, UK
[b] University of Bristol, Bristol, UK
[c] National Centre for Social Research, London, UK
[d] University of Technology, Sydney, Australia

ARTICLE INFO

Article history:
Available online 21 June 2008

Keywords:
UK
Capability
Older people
Best-worst scaling
Outcome measurement
ICECAP instrument
Quality of life (QoL)

ABSTRACT

This paper reports the first application of the capabilities approach to the development and valuation of an instrument for use in the economic evaluation of health and social care interventions. The ICECAP index of capability for older people focuses on quality of life rather than health or other influences on quality of life, and is intended to be used in decision making across health and social care in the UK. The measure draws on previous qualitative work in which five conceptual attributes were developed: attachment, security, role, enjoyment and control. This paper details the innovative use within health economics of further iterative qualitative work in the UK among 19 informants to refine lay terminology for each of the attributes and levels of attributes used in the eventual index. For the first time within quality of life measurement for economic evaluation, a best-worst scaling exercise has been used to estimate general population values (albeit for the population of those aged 65+ years) for the levels of attributes, with values anchored at one for full capability and zero for no capability. Death was assumed to be a state in which there is no capability. The values obtained indicate that attachment is the attribute with greatest impact but all attributes contribute to the total estimation of capability. Values that were estimated are feasible for use in practical applications of the index to measure the impact of health and social care interventions.

Introduction

Current UK policy regarding the provision of both health care and social care for older people suggests that greater integration is required between these two areas (Department of Health, 2001; Glendinning, 2003). Economists' attempts to assist such resource allocation decisions, however, strongly focus on measuring health (in its broadest sense), with proxies for health, life expectancy, and health-related quality of life measures (in particular the Quality-Adjusted Life Year (QALY) (Williams, 1985)) dominating the empirical economic evaluation literature. Many social services interventions, however, may impact more broadly on quality of life (assumed here to encompass the broad range of factors that are important to people in living their lives) rather than health (assumed here to include aspects of physical and mental health). Measures that look only at health in assessing the impact of these interventions would be very likely to underestimate impact.

Given the concern for closer integration, previous work by this research team has concentrated on developing

☆ This work would not have been possible without the time given up by informants during the qualitative work and the respondents to the surveys. Thanks are also due to Ini Grewal and the survey interviewers. This work was supported by the MRC Health Services Research Collaboration.

* Corresponding author. Tel.: +44 121 414 3056; fax: +44 121 414 8969.
E-mail addresses: j.coast@bham.ac.uk (J. Coast), terry.flynn@bris.ac.uk (T.N. Flynn), lucy@natarajan.co.uk (L. Natarajan), k.sproston@natcen.ac.uk (K. Sproston), jlewis@ncb.org.uk (J. Lewis), jordan.louviere@uts.edu.au (J.J. Louviere), tim.peters@bris.ac.uk (T.J. Peters).

0277-9536/$ – see front matter © 2008 Elsevier Ltd. All rights reserved.
doi:10.1016/j.socscimed.2008.05.015

attributes for a new measure of (general) quality of life for older people, rather than health-related quality of life or influences on quality of life (Grewal et al., 2006). The purpose of such a measure would be to provide information for decisions about the allocation of resources across health and social care, rather than just across health. By including dimensions that are concerned with quality of life rather than health alone the measure would enable comparisons across a broader range of interventions. For example, the measure would more easily enable decision makers to compare the value of social service interventions that may improve quality of life without improving health (such as aids and adaptations including, for example, housing interventions; day care; and meals on wheels) with, for example, health interventions that improve both health and quality of life (such as provision of drugs for Alzheimer's or the surgical replacement of hips and knees). This type of measure might also be extremely useful for interventions concerned with the public health of older people, such as mental health services for dementia and depression, measures to reduce falls, continence services, etc. (Department of Health & OPD(PIP), 2004).

Prior work by the research team used in-depth interviews with older people to find out what mattered to them in terms of their quality of life (Grewal et al., 2006). Although discussion initially concentrated upon factors influencing quality of life (activities, relationships, health, wealth, surroundings and religion/faith/spirituality) further probing and analysis suggested that five conceptual attributes were important: attachment (feelings of love, friendship, affection and companionship); role (the idea of having a purpose or "doing something" that is valued, either by the individual and/or by others); enjoyment (notions of pleasure and joy, and a sense of satisfaction); security (feeling safe and secure, not having to worry and not feeling vulnerable); and control (being independent and able to make one's own decisions) (Grewal et al., 2006).

Importantly, the previous study also suggested that informants' quality of life was limited by loss in ability to pursue these attributes (Grewal et al., 2006). So, for example, poor health itself did not reduce quality of life; rather, the important issue was the influence such poor health had upon informants' abilities to achieve these attributes. The work was then linked with the extensive literature on capabilities (Nussbaum, 2003; Robeyns, 2003, 2005) associated particularly with the work of Amartya Sen (1982, 1992, 1993, 2002). Sen distinguishes between functioning and capability as possible foci for evaluation, using the example of the person who is starving due to lack of food compared with the person for whom food is freely available, but who chooses to fast, to indicate why capability instead of functioning might be an important focus of evaluation (Sen, 1993). Here, the five conceptual attributes developed in the previous work are interpreted as a set of functionings, the capability to achieve which appeared to be of importance. The previous work concluded that further development of the measure would focus on developing an index of capability (Grewal et al., 2006). Such an approach has not previously been pursued either within the capabilities or the health economics literature.

It should be stressed that developing a capability index was not the starting point for the original research, but rather one that emerged from careful analysis of the qualitative data. Consequently, whilst an index of capability seems to most closely reflect the values of the older people interviewed and thus draws to a greater extent on the capabilities literature than previous "extra-welfarist" assessments within health economics (Culyer, 1989, 1990), the research is consistent with the economic evaluation paradigm in health care research, with the measure intended to provide a useful outcome for economic evaluation. To be useful for this purpose, the measure must be able to be completed by older people participating in studies to determine the impact of interventions and must be linked to a set of values that can provide a weighted measure of outcome. The standard approach within health economics, however, is to use preference elicitation methods that weight (anchor) health against death but here a different approach has been used to anchor the index.

This paper details a number of innovative methods that have been used to develop the measure of capability (the ICECAP[1] measure) from the point at which the five conceptual attributes were obtained. In particular, the application of qualitative methods within health economics to develop terminology for the measure, the use of best-worst scaling to develop capability values and anchoring in terms of capability rather than death, represent clear departures from usual practice within the development of measures for use in economic evaluation. The paper thus not only presents results for the final terminology used in the index and the values obtained from a general population sample of older people but also illustrates the successful application of these methods in the context of health economics.

Methods

Qualitative work: design

The attributes that emerged from the initial qualitative work were attachment, role, enjoyment, control and security (Grewal et al., 2006). These conceptual terms were clearly not described in ways that would be meaningful to older people who are asked to complete a measure nor to policy makers who have to interpret results. In terms of using an index based on these attributes for policy evaluation in health and social care, those completing the index need to be able to understand the meaning behind the conceptual labels so that they can indicate the extent to which an attribute is attainable in their lives. In contrast, the work by Anand and van Hees which essentially takes the same approach of asking people about their capabilities uses academic terminology in its classification system such as "intellectual stimulation" and "social relations" (Anand & van Hees, 2006) – this is not necessarily meaningful to people and might therefore evoke different meanings from those intended.

[1] ICECAP stands for ICEpop CAPability index. ICEPOP is the name of the UK MRC-funded programme through which the index was developed.