

Assessing needs from patient, carer and professional perspectives: the Camberwell Assessment of Need for Elderly people in primary care

KATHERINE WALTERS, STEVE ILIFFE, SHARON SEE TAI, MARTIN ORRELL¹

Department of Primary Care and Population Sciences, Royal Free and University College Medical School, University College London, Holborn Union Building, Archway Campus, Highgate Hill, London N19 5NF, UK

¹Department of Psychiatry and Behavioural Sciences, Royal Free and University College Medical School, University College London, London, UK

Address correspondence to: K. Walters. Fax: (+44) 20 7 281 8004. Email: k.walters@ucl.ac.uk

Abstract

Background: despite evidence that needs assessment of older people can improve survival and function when linked to effective long-term management, there is no structured needs assessment tool in widespread use. The Camberwell Assessment of Need for the Elderly is a new tool not previously evaluated in primary care. It includes the views of patients, carers and health professionals, enabling a direct comparison of their perspectives.

Aim: to conduct a feasibility study of Camberwell Assessment of Need for the Elderly in primary care and to compare the needs identified by patients, carers and health professionals.

Methods: we selected a random sample of 1:20 of all people aged 75 and over from four general practices in inner-city and suburban north-west London. We interviewed the patients, their informal carers and lead health professionals using the Camberwell Assessment of Need for the Elderly schedule.

Results: 55 (65.5%) of 84 patients, 15 (88.2%) of 17 carers and all of 55 health professionals completed interviews. The patients' three most frequently identified unmet needs were with 'eyesight/hearing', 'psychological distress' and 'incontinence'. The carers' three most frequently identified unmet needs were with 'mobility', 'eyesight/hearing' and 'accommodation' and the health professionals' were with 'daytime activities', 'accommodation' and 'mobility'. κ tests comparing patient and health professional assessments showed poor or fair agreement with 18 of the 24 variables and moderate or good agreement with six. None showed very good agreement.

Conclusion: the Camberwell Assessment of Need for the Elderly schedule is feasible to use in primary care and can identify perceived needs not previously known about by health professionals. A shorter version of Camberwell Assessment of Need for the Elderly focusing on areas of poor agreement and high levels of need might be useful in the assessment of needs in older people in primary care.

Keywords: aged 80 and over, geriatric assessment, health services for the aged, needs assessment

Introduction

There has been a history of well-documented, long-standing under-detection of disability in older people in the community [1–4]. Recent evidence has shown that in-home Comprehensive Geriatric Assessment, with follow-up of problems identified, can prevent admission to hospital or placement in nursing or residential care and improve the functional status of older people [5]. A meta-analysis of Comprehensive Geriatric Assessment

programmes showed that they were effective when combined with strong long-term management in improving survival and function in older people [6]. A large study in Nottinghamshire concluded that annual over-75 health screening assessments in general practice were valuable, as 44% of those assessed were found to have at least one problem and action was taken in 82% of these cases [4].

There is, however, a lack of consistent information on how best to identify and address older people's often complex needs. There is no systematic structured

assessment in widespread use in the United Kingdom and there is a wide variation between practices [7, 8].

The Camberwell Assessment of Need for the Elderly (CANE) is a new instrument which provides a structured, systematic multi-dimensional needs assessment covering 24 patient-related and two carer-related domains (see Table 1). CANE has been adapted from the Camberwell Assessment of Need used with adults with chronic mental illness [9] for use with older people in a mental health setting. It is performed with the patient, their carer and lead health professional and thus enables a direct comparison of their different perspectives. CANE is a questionnaire with detailed, hierarchical questions following the Camberwell Assessment of Need structure. It asks about the nature and severity of the problem for each domain and, where problems are identified, about the current levels and sources of help that are received, the perceived level of need for help, whether help received is of the right type and whether they are satisfied with the amount of help received. Further details of the structure have been reported elsewhere [9, 10].

CANE was developed using a modified Delphi consensus method with a wide spectrum of health professionals, including psychiatrists, geriatricians, general practitioners, nurses and occupational therapists, as well as patient and carer representatives [10]. This rigorous development process has resulted in good face

and content validity. Validity and reliability studies have been completed in outpatient, inpatient and day-hospital old-age psychiatry settings. CANE scores correlated highly with level of dependency on the Clifton Assessment Procedures for the Elderly, quality of life on the Short Form-36 and functional ability on the Barthel index. It performed reasonably well on tests of internal consistency and construct validity and very well in test/re-test and inter-rater reliability studies [10]. It has not previously been evaluated in primary care.

Method

Subjects

We purposively selected and recruited four general practices to represent both larger (three or more principals) and smaller (one or two principals) practices in inner-city and suburban areas in north-west London. Two of the practices performed systematic annual over-75 health checks, the other two opportunistic checks only. We selected a systematic random sample of 1:20 of all registered patients aged 75 years and over from each practice. The lists of subjects were reviewed by the general practitioners, practice nurses and by the researcher with reference to their medical records to identify exclusions. We excluded those who were found to have died or moved away from the practice and patients with advanced dementia who had no informal carer to represent their views. We wrote to subjects with a reply slip, giving an opportunity to decline to participate with their reasons for this.

Design

The researcher was trained in a single 1 h session in the use of CANE by a clinician experienced in its use (M.O.). The use of CANE was then piloted with two patients, carers and health professionals and a brief follow-up session clarified coding. Ethical approval was obtained from local research ethics committees.

For each subject agreeing to participate, a structured needs assessment using CANE was performed in a face-to-face interview. Their informal carers (a relative/friend/neighbour who assisted them in their daily living on one or more occasion per week) and lead health professional (the health professional who was identified by both the patient or carer and their general practitioner as knowing them best) were identified and interviewed. Patients were interviewed first, followed by their carer and finally the health professional. A 'met' need was recorded where the subject identified a problem but felt that there was sufficient support from either informal sources or services to meet the need. An 'unmet' need was recorded when the subject identified a problem but

Table 1. The 24 patient- and two carer-related domains included in the Camberwell Assessment of Need for Elderly people

Patient	Accommodation
	Looking after the home
	Food
	Self-care
	Company
	Intimate relationships
	Daytime activities
	Safety—abuse/neglect
	—inadvertent self-harm
	Benefits
	Managing money
	Information on condition/treatment
	Physical illness
	Mobility/falls
	Incontinence
	Eyesight/hearing
	Drugs (side effects, compliance)
	Memory
	Psychological distress
	Psychotic symptoms
	Deliberate self-harm
	Alcohol
	Behaviour
	Caring for someone else
Carer	Need for information
	Psychological distress

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felt there was either no support or insufficient support from informal sources or services.

Feasibility data were collected for the use of CANE in primary care. This included data on arranging and travelling to the interviews, place and length of interviews and the presence of others at the interview.

Analysis

We performed analysis using SPSS 7.0 for Windows. We compared the needs (met and unmet) identified using CANE by the patients and carers with those identified by the health professionals. We performed κ tests to analyse the level of agreement between the patient and health professionals' assessments. This was not repeated for carers because of small numbers in the sample and the risks of spurious results from multiple testing.

Results

Study sample

On reviewing practice lists and patient records, we excluded 18 patients who had died or moved away. A further five were excluded as they had advanced dementia, were resident in nursing homes and had no informal carer to interview. After exclusions, we identified 84 patients as potentially available for interview. Twenty-nine patients and two carers declined to participate in the study. Reasons were given for 11 of these patients and were varied, ranging from 'too well' to 'too ill'. In total 55 (65.5%) of 84 patients, 15 (88.2%) of 17 carers and all of 55 health professionals completed interviews. There were no significant differences using χ^2 tests between participants and non-participants in age, sex or where they lived.

Of the interviews with health professionals, 40 were with general practitioners, 14 with practice nurses and one with a district nurse. For 53 of the 55 subjects the patients and general practitioners or nurses agreed on

the identification of the 'lead health professional'. On two occasions, the patient identified a general practitioner who disagreed. In both cases when the medical records were referred to, the general practitioner was found to be the health professional who had seen them most frequently over the preceding year and was therefore interviewed for the study. No hospital-based staff were identified as 'lead health professional'.

The mean age of patients in the sample was 81.5 years (median 81 years, range 75–95 years); 34 (62%) were women and 20 (36%) were from inner-city areas, with the remainder from suburban areas. Overall, 27 (49%) owned their own homes, 26 (47%) had no other income in addition to the state pension, 23 (42%) lived alone, seven (13%) lived in sheltered accommodation and one (2%) was in residential care.

Five (9%) of the sample spoke English as a second language (three of South Asian and two of Polish origin); three of these required an interpreter to communicate. Three patients were unable to communicate sufficiently to record accurately their needs (due to advanced dementia or aphasia) and were excluded from the comparison of patient and professional perspectives. The three staff interviews which concerned these patients were also excluded from this analysis. We recorded the carers' views and included these in the comparison of carers and professionals perspectives.

Feasibility

Feasibility data on arranging interviews and the length of the interviews/CANE assessment are detailed in Table 2. The mean time taken for the CANE assessments ranged from 22 min for patients to 10.7 min for health professionals. As a pre-coded interview schedule with built-in prompts, CANE was found to be simple to use with minimal training. Some variables ('psychotic symptoms', 'behaviour', 'abuse' and 'alcohol') in the CANE schedule did not identify any unmet needs.

Table 2. Feasibility data for using the Camberwell Assessment of Need for Elderly (CANE) in primary care

	Patient	Carer	Staff
Mean no. of contacts made to arrange (range)	2.1 (1–6)	1.5 (1–4)	1.2 (1–2)
Mean distance travelled to interview from base, miles (range)	7.0 (0.5–20)	4.4 (0–10)	4.2 (0–18)
Mean time for CANE assessment, min (range)	22.0 (9–55)	17.3 (10–30)	10.7 (4–20)
Place of interview			
Patient's home	51	13	–
Carers' home (if different from patient's home)	–	2	–
General practitioner's surgery	1	–	55
Other people present at interview			
None	43	14	55
Carer	2	–	–
Non-carer relative	6	1	–
Non-carer friend	1	–	–

Description of needs

Patients and health professionals

A comparison of the frequencies of needs identified by the 52 patients (excluding the three patients unable to complete an accurate assessment) and their corresponding health professionals are illustrated in Table 3.

Many patients identified met needs in the areas of 'physical illness', 'looking after the home', 'food' and 'mobility'. The patients' three most frequently identified unmet needs were with 'eyesight/hearing', 'psychological distress' and 'incontinence', closely followed by 'company', 'information on condition and treatment' and 'memory'. Conversely, health professionals' three most frequently identified unmet needs were 'daytime activities', 'accommodation' and 'mobility/falls'. The health professionals identified relatively few of the most common unmet needs identified by the patients.

For each variable the rest of the sample responded as either 'no problem' or 'not known'. We recorded a response of 'not known' for patients in only two of the variables: one patient responded this way for 'information on condition and treatment' and 18 (35%) for 'benefits'. Some health professionals responded 'not known' for each of the 24 variables. This was most

frequent in 'benefits' (35 responses; 67%), 'managing money' (26 responses; 50%), 'looking after the home' (13 responses; 25%), 'accommodation' (12 responses; 23%) and 'psychological distress' (11 responses; 21%).

We performed κ tests to analyse the level of agreement between the assessments by the patients and health professionals [11]. Most (18) of the 24 variables showed only poor or fair agreement (κ co-efficient < 0.4). The variables 'self-care', 'company' and 'caring for some else' showed moderate agreement (κ =0.4–0.6). The variables 'physical illness', 'food' and 'mobility' showed good agreement (κ =0.6–0.8). There were no variables with very good agreement (κ > 0.8).

Carers and health professionals

Almost all of the 15 carers identified met needs in the areas of 'food' (15), 'looking after the home' (14) and 'physical illness' (12) and to a lesser extent in 'self-care' and 'daytime activities' (seven each). High levels of unmet need were identified for 'mobility' (eight) and 'eyesight/hearing' (seven) and to a lesser extent 'accommodation' (four). About half of the carers identified needs in 'incontinence' and 'memory' but, in contrast to the patient group detailed above, many of these were identified as met needs (by five out of eight

Table 3. Frequencies of needs identified using the Camberwell Assessment of Need for Elderly (CANE) by patients and health professionals

Variable	Frequency (and %) of needs			
	Met		Unmet	
	Patients (<i>n</i> =52)	Staff (<i>n</i> =52)	Patients (<i>n</i> =52)	Staff (<i>n</i> =52)
Accommodation	3 (5.8%)	—	6 (11.5%)	8 (15.4%)
Looking after the home	22 (42.3%)	12 (23.1%)	3 (5.8%)	4 (7.7%)
Food	24 (46.2%)	20 (38.5%)	1 (1.9%)	2 (3.8%)
Self-care	7 (13.5%)	3 (5.8%)	3 (5.8%)	5 (9.6%)
Daytime activities	10 (19.2%)	6 (11.5%)	3 (5.8%)	9 (17.3%)
Company	4 (7.7%)	5 (9.6%)	8 (15.4%)	6 (11.5%)
Intimate relationships	4 (7.7%)	3 (5.8%)	3 (5.8%)	5 (9.6%)
Safety—Abuse/neglect	1 (1.9%)	—	—	—
—Inadvertent self-harm	—	2 (3.8%)	2 (3.8%)	1 (1.9%)
Benefits	—	—	—	—
Managing money	11 (21.2%)	3 (5.8%)	—	2 (3.8%)
Information on condition	4 (7.7%)	3 (5.8%)	8 (15.4%)	—
Physical illness	35 (67.3%)	34 (65.4%)	3 (5.8%)	3 (5.8%)
Mobility/falls	20 (38.5%)	16 (30.8%)	5 (9.6%)	7 (13.5%)
Incontinence	4 (7.7%)	2 (3.8%)	9 (17.3%)	1 (1.9%)
Eyesight/hearing impairment	13 (25.0%)	17 (32.7%)	11 (21.2%)	3 (5.8%)
Drugs (side effects/compliance)	12 (23.1%)	12 (23.1%)	3 (5.8%)	1 (1.9%)
Memory problems	3 (5.8%)	7 (13.5%)	7 (13.5%)	1 (1.9%)
Psychological distress	8 (15.4%)	12 (23.1%)	10 (19.2%)	6 (11.5%)
Psychotic symptoms	—	—	—	—
Deliberate self-harm	—	—	3 (5.8%)	—
Alcohol	1 (1.9%)	—	—	—
Behaviour	—	3 (5.8%)	—	—
Caring for someone else	3 (5.8%)	4 (7.7%)	3 (5.8%)	5 (9.6%)

and five out of seven respectively). Six of the carers felt 'psychologically distressed'; in four of these this need was unmet and yet staff also identified the same carers as distressed.

Discussion

The advantage of using the CANE schedule in research is that it has the capacity to both identify met and unmet needs, and to compare directly the assessments of patient, carer and health professional. It was more time-consuming to make three assessments for each older person, and the relative advantages of doing this in clinical practice have yet to be determined. This study does show, however, that the CANE schedule is feasible for use in a research setting as a relatively quick multi-disciplinary needs assessment tool that can yield important new information.

CANE was originally developed for use in old-age psychiatry and some variables (e.g. 'psychotic symptoms', 'behaviour' problems) elicited very low responses when used in primary care, probably due to a low prevalence of these problems in people living at home. There is the potential to develop a shorter primary-care version of CANE, which may have broader applications. Modification of CANE and further evaluation would be recommended before any extension of its use in its present form in people living at home.

We should be cautious about over-interpretation of the results of this study with its small sample size. However, it does raise some interesting points. The κ tests would imply that health professionals do not, with a few notable exceptions (e.g. 'physical illness', 'mobility' and 'food'), have the same views as patients about their needs. These differences may result from different interpretations of the concept of 'need', or from varying knowledge about the patient's circumstances and this requires further exploration. Need is a subjective construct, not definable in a precise sense and depends on professional and lay perceptions and a dialogue between them.

High levels of needs were found by both patients and health professionals in many areas. Some of these (e.g. 'physical illness', 'food' and 'looking after the home') were clearly perceived by patients and health professionals as being mostly met needs. Other areas had high proportions of unmet needs. These unmet needs can be categorized into three types. First, those that health professionals appear to identify with similar frequency to patients (e.g. 'mobility' and 'accommodation' and 'company') and thus already appear to know about without needing to perform a needs assessment on the patient directly. Secondly, some needs (e.g. 'daytime activities') are reported as a problem by health professionals more often than by the patients themselves. Lastly, and perhaps the most striking, are those needs the health professionals identify less frequently than

the patients or carers. These were 'information on condition and treatment', 'incontinence', 'eyesight/hearing', 'memory' and, to a lesser extent, 'psychological distress'.

Within the small carer sample, there were proportionately higher levels of some social needs (e.g. 'looking after the home' and 'food') and of 'physical illness', as might be expected in what is likely to be a more dependent population. In particular, carers identified higher levels of unmet needs than the patients did in 'mobility' and 'eyesight/hearing'. Many identified themselves as psychologically distressed; in many, this need was unmet—despite a similar identification of distress by the health professionals.

A more focused needs assessment, concentrating on areas likely to produce the highest yield of relevant new information, could be beneficial to busy primary-care practitioners, who may be able to integrate a brief instrument into opportunistic screening during their routine work.

Conclusion

The CANE schedule is feasible for use in primary care and can yield new information about the unmet needs of older people. In using CANE, it is possible to identify those areas where there are relatively high levels of perceived unmet need that the health professionals do not already appear to know about, such as incontinence, impaired eyesight/hearing, memory problems and information on their condition/treatment. A shorter, more focused primary-care version of CANE could be developed which may prove useful in the assessment of needs in older people.

Key points

- There is no structured needs assessment schedule in widespread use, despite evidence that needs assessment can improve survival and function when linked to effective long-term management.
 - The Camberwell Assessment of Need for the Elderly (CANE) is a new multi-disciplinary needs assessment tool which includes the perspectives of patients, carers and health professionals.
 - CANE is feasible to use as a research tool in primary care and can identify unmet needs not previously known about by health professionals.
 - A shorter version of CANE, focusing on areas of poor agreement between patients and health professionals and with high levels of need, could have potential in the structured assessment of needs of older people in primary care.
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Further information about CANE is available from Martin Orrell at the Department of Psychiatry and Behavioural Sciences, Royal Free and University College Medical School, University College London, Wolfson Building, Riding House, London W1N 8AA, UK. Tel: (+44) 20 7 504 9418. Fax: (+44) 20 7 323 1459. Email: m.orrell@ucl.ac.uk

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