Evidence summary: why is access to dental care for frail elderly people worse than for other groups?

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KEY TERMS

- **Frail elderly:** older adults or aged individuals who are lacking in strength and are unusually susceptible to disease or to other infirmity.
- **Access:** a measure of how much dental care a person has received either in absolute terms or relative to health need.
- **Dental care:** care provided by a dental professional involving at least formal examination of oral health and possible treatment.

RESEARCH

In August 2009, members of the newly redeveloped Primary Care Dentistry Research Forum (www.dentistryresearch.org) took part in an online vote to identify questions in day-to-day practice that they felt most needed to be answered with conclusive research. The question which received the most votes formed the subject of a critical appraisal of the relevant literature. Each month a new round of voting will take place to decide which further questions will be reviewed. Dental practitioners and dental care professionals are encouraged to take part in the voting and submit their own questions to be included in the vote by joining the website.

This paper details a summary of the findings of the first critical appraisal. In conclusion, the critical appraisal has identified that primary research is needed to look at the subject of access to dental care for frail elderly people. Similar barriers to accessing care for this group of people are still being reported today as they were 20 years ago.

BACKGROUND

Oral health is a lifetime concept.[1] High quality oral healthcare should be available to all people regardless of their age or circumstances.[2] By 2043 it is likely that 25% of the population in England will be aged 65 years and over.[3] Increasingly dentate, the nature of oral healthcare need is rapidly changing, leading to more complex restorative treatments and more preventive dental services being required.[4,5]

People aged over 90 years, and those made frail by stroke or dementia, are more likely to require domiciliary care. Help the Aged[6] recently stated 'elderly people are suffering because of poor access to dentistry services', with those in care homes or the housebound struggling to see a dentist.

AIM

This review aimed to use research evidence to construct a comprehensive list of the factors believed to cause poor access to dental care by the frail elderly in the UK, and also try to identify research which shows which of these factors are the most important determinants of access for this group.

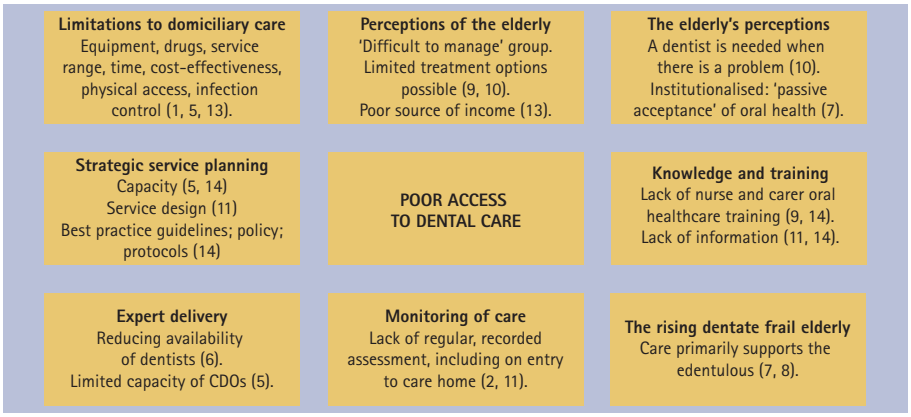

Fig. 1 Factors associated with poor access to dental care (reference numbers in brackets)

REVIEW METHOD

Ovid MEDLINE was searched (1950 to week 4, August 2009) using the key terms as search terms, limited to the UK. Thirty papers were identified and 18 were excluded. Two further papers were sourced from reference lists. One quantitative study was identified in 14 papers reviewed. Locally developed quality criteria applied.

Further searches included CEBD, Cochrane Oral Health Group, CRD, IADR, BSDR, ADA and individual journal websites, eg *Gerodontology*.

Literature searches were supplemented by contacting Help the Aged and the British Society of Gerodontology.

FINDINGS

The 14 studies included in the analysis reported factors affecting access to dental care by the frail elderly (see Table 1). Half of the studies were conducted before 2000, and nine of the 20 different types of respondent across all studies were care home managers

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Table 1 Studies reporting suggested factors that lead to poor access

Ref. no.	Method and participants	Year* and location	'Type' of elderly people	Factors identified
7	Self-administered postal questionnaire by 60 GDPs	2007, N & W Belfast	Community-dwelling elderly people	Limitations of domiciliary care: Lack of appropriate equipment Lack of emergency drugs Limited range of services 'Difficult to manage' group (behaviourally/cognitively) Lack of consent Lack of time Lack of cost-effectiveness. Inconvenience associated with service provision. Female dentists less likely to provide domiciliary dental care.
8	Telephone interviews with 58 care home managers (independent, voluntary or state-run care homes, residential and nursing) 22 senior and junior staff interviews 288 residents' oral assessments	2007, Greater Glasgow	Residents of residential and nursing homes (average 72% female, and 37% 85 years old)	Low levels of oral health assessment in residential homes (*vs* nursing homes) on admission, and especially low levels undertaken by a dentist. Low levels of formal mouth care policy in residential homes. Negligible recent auditing of mouth care procedures in nursing and residential homes. Low levels of or inadequate mouth care training (content and source of expertise). Mouth care not routinely documented. Some carers find mouth care distasteful. Reported reduction in CDS annual dental inspections for institutionalised elderly. Variation between client group's normative and perceived care need. Lack of appropriate written material on mouth care for non-dentists.
9	Self-administered questionnaire by 100 nurses and healthcare professionals in acute admission areas for elderly, sub-acute unit and designated rehabilitation hospital wards; also 75 nursing staff in four hospital discharge nursing homes.	2000; NW England.	Admissions to hospital wards for the elderly; also residents in hospital discharge nursing homes	Deficiencies in healthcare professionals' knowledge of appropriate oral care for elderly people. Healthcare professionals' own anxieties about dental attendance.
10	41 structured interviews with superintendents, managers or owners of residential care (social services, private and voluntary agency run) 61 interviews with healthcare staff 379 structured interviews in 35 homes with residents judged by carers capable of responding meaningfully Oral examinations of 151 non-confused residents, and later with 102 confused residents	1988-1990, Newcastle-upon-Tyne	Confused and non-confused residents of residential homes. Two-thirds aged 80 years+	Lack of dental examination on entry to home. Lack of systematic approach to arranging dental treatment. Large variations across individual homes of residents seeing a dentist. Residents' belief they were coping satisfactorily. Lack of transport. Poor health. Low levels of staff oral care training. Lack of staff awareness of cost of dental care.
11	Retrospective audit of 283 new referrals to the community dental service (CDS) for domiciliary dental care	2000-2001, one area of West Hertfordshire	All new patients referred in study period (mean age 74.2 years, all house/bedbound – physically disabled/mental health problems/ medical illness; 43% with urgent oral problems)	Meeting new referrals may be at expense of existing house/bed-bound clients – total service capacity. High cost of portable equipment. Limited treatment options. Fewer clients seen in a day than in a clinic. Physical strain of lifting and transporting equipment. Service responds to demand, not early detection, prevention and treatment for all elderly.
12	A self-completed postal questionnaire by 96 dentists A self-completed postal questionnaire by 43 nurse managers of nursing/ residential homes	2002, BDA Exeter and district section	Residents of residential and nursing homes	Rapidly reducing numbers of dentists accepting new NHS domiciliary patients. Increasing levels of dentate elderly. Few dentists willing to carry out conservative treatment. Fee structure problematic. Nurse managers struggle to locate an NHS dentist for a resident.
13	Structured interviews with 412 residents in 22 nursing homes Clinical examinations with 331 denture-wearing and 118 dentate residents	1996-1997, Avon Health Authority area	Residents of registered nursing homes designated for sick and infirm elderly people (where complete personal care assumed). Required to have general health that permitted oral examination.	Low level of residents ambulant. Very low levels of recall of last dental attendance in last five years. Low ability of residents to brush their teeth, especially dentures. Mixed levels of staff help with oral health care, eg no daily help for dentate residents. Lack of awareness of advocates to arrange dental care. Failure of residents to report symptoms: 'passive acceptance'. Failure of carers to alert nursing staff to problems. Failure of nurses to act upon residents' expressed needs. Ineffective staff performance in delivering residents' oral health care needs.

Continued on page 121

Table 1 Studies reporting suggested factors that lead to poor access

Continued from page 120

14	Open-ended, qualitative questions within a longer quantitative questionnaire with 227 employed carers in 22 nursing homes	1997, Avon Health Authority area	Residents of registered nursing homes designated for sick and infirm elderly people.	Perceived low prioritisation of oral health by nursing management. Lack of cooperation from cognitively-impaired clients. Lack of training for carers. Lack of arrangements for routine professional dental checks. Lack of provision of oral hygiene aids and cleansing materials, eg shared tooth and denture brushes. Lack of clarity about client/carer responsibility for oral healthcare, whether dentate or with dentures.
15	Retrospective analysis of 100 patient record cards in CDS	1998, rural SW Surrey	Very elderly patients (75 years+) referred to CDS due to medical disabilities.	Limited ability of patients with eg dementia to cope with treatment. Referral (by patient/carer) due to perceived medical difficulties poorly correlated with actual dental treatment need. Lack of training of primary care dental providers. Insurmountable problems for housebound to attend surgery. Substantial investment in equipment for GDPs to provide domiciliary care. Time away from surgery for GDP – and fixed overhead costs of premises. Management of domiciliary dental treatment is more complex than its technicality. Need to research how the financial aspects of care provision influence the referral process.
16	Structured interviews with 263 frail and functionally dependent older adults in 5 residential homes, 3 sheltered housing complexes and in private accommodation. Questionnaires completed by 115 carers (87 paid, 28 relatives/friends). Multivariate analysis of factors	1994, Ware, Hertfordshire	Housebound adults aged 60 years+ who were judged able to co-operate.	Patient perception of need: most patients only attend the dentist when they have problems. Perceived cost, compared to actual cost – poorly understood by people citing cost as a barrier. Other perceived barriers to dental care: poor health, transport, fear, lack of escort, no dentist available. Most 90 years+ prefer dental treatment in own homes. Younger, paid carers who regularly attend the dentist are more likely to see benefit in dental care for clients. Variations in perceived barriers to dental care between those who do and do not receive care.
17	152 postal questionnaires to supervisors of residential homes for the elderly. Statistical analysis of data	1991, Manchester area	Elderly people resident in institutions.	Lack of systematic approach to arranging dental treatment. Smaller homes and privately-run homes had poorer arrangements for and understanding of residents' oral healthcare. Lack of regular dental visits and poor record maintenance of oral health problems. Lack of guidance about when dentate and edentulous residents should see a dentist. Lack of awareness of treatment cost.
18	152 postal questionnaires to supervisors of residential homes for the elderly. Statistical analysis of data	1991, Manchester area	Elderly people resident in institutions.	Difficulty in carers putting 'felt need' for residents' dental care in to action.
19	1,359 self-administered postal questionnaires with general dental practitioners (85%) and community dental officers (15%) in all Health Board areas across Scotland	2007, Scotland.	Recipients of domiciliary care.	Concern for infection control: packaging, carriage of contaminated instruments and clinical waste. GDPs mainly provided prosthetic treatment. Lack of suitable equipment, eg light source. Lack of emergency essential drugs. Other barriers to provision of domiciliary care: time, poor remuneration, difficulties of carrying equipment. Higher domiciliary workloads in rural/mixed areas than urban practices. Personal safety of dentists.
20	109 telephone interviews with registered nurses and managers in 28 care homes. A cross-sectional analytic survey. 23 telephone interviews with staff in 8 care homes following oral health education intervention	2008, Greater Glasgow and Clyde region	Residents in 28 care homes.	Inadequate training of staff within care homes about oral healthcare provision. Lack of knowledge of Scottish NHS best practice statement on oral health of older people. Lack of resident co-operation with oral care provision.

* Year of study where known, or publication date

and staff. Three studies[7,12,19] reported the views of GDPs/CDOs, including two since the 2006 introduction of the 'new contract' for dentists. Only three studies[10,13,16] reported the views of the frail elderly, however these were confined to institutionalised persons. Three studies[8,10,13] reported oral health assessments, including of the confused elderly, however direct research specific to this special care group appears to be lacking.

Most studies were descriptive, offering a low quality of evidence and focusing upon the practical, psychological, and information and training challenges of access to dental care. One recent study[20] found very low levels of awareness of

2005 'best practice' guidelines, indicating a gap in research upon the strategic, including commissioning, service design and implementation aspects of dental care for the frail elderly.

One study[16] in 1998 provided a moderate quality of evidence, attempting to quantitatively prioritise the barriers to care in frail and functionally dependent older adults as lack of perceived need, cost of treatment (real or apparent), and transport.

Overall, in terms of the practical aspects of care for the frail elderly, it appears that, in the UK, similar barriers to access to dental care for the frail elderly are being reported now as were reported almost 20 years ago. It is unclear, due to a lack of research undertaken/reported, whether recent UK policy developments are having a measurable impact upon access to dental care for the frail elderly. Factors associated with poor access are shown in Figure 1.

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