

IN BRIEF

- Randomised controlled trial that shows that domiciliary denture care substantially and significantly increases the oral health related quality of life of housebound older people.
- Findings provide a robust evidence-base for domiciliary denture services.
- Findings can be used by interested parties to encourage primary care trusts to provide material support for such services.


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Domiciliary denture services and quality of life

The effect of a domiciliary denture service on oral health related quality of life: a randomised controlled trial
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ABSTRACT

Objectives To assess the effectiveness of a domiciliary denture service on the oral health related quality of life (OHQoL) of older patients requiring complete dentures.

Design

Community based single-blind randomised controlled trial.

Subjects and methods

133 edentate adults aged 65 years and over referred to a community dental service for domiciliary care were assigned to study and control groups using block randomisation. Treatment to provide the study group with complete dentures commenced immediately. Treatment for the control group was deferred to the normal waiting list but in the interim participants received three home visits from the dental team. Follow up data were collected three months after dentures had been fitted in the study group.

Outcome measures

Prevalence, extent of impacts and total scores using Oral Impacts on Daily Performance (OIDP).

Results

The study and control groups ($n = 65$ and 68 respectively) had similar OHQoL at baseline. Two and five participants were lost to the study and control groups respectively. In ANCOVA and intention to treat analysis, the presence of impact, number of impacts and total scores for OIDP at follow up were predicted by group allocation ($b = 0.28$, $b = 0.30$, and $b = 0.32$ respectively. All $p < 0.001$). In all cases the study group showed significantly improved OHQoL compared to the control group.

Conclusion

A domiciliary denture service improved oral health related quality of life of housebound edentulous older people.

EDITOR'S SUMMARY

As the proportion of older adults in the UK population continues to increase, the dental health problems that may be experienced by this group of patients cannot be ignored. Many older people have medical or mobility problems that may make visiting a dentist difficult, and this can have a significant negative effect on their quality of life, particularly for those who are edentulous.

This paper by Pearson *et al.* attempts to assess the impact and effectiveness of a domiciliary denture service for older patients requiring complete dentures. By using a randomised controlled design, the authors ensured that any evidence uncovered by the study would be as robust as possible and this is particularly important in an area such as domiciliary dental care, where published evidence about effectiveness is few and far between. The results show that the oral health-related quality of life for housebound older people requiring dentures was improved by a domiciliary denture service. This result is perhaps not surprising – oral health is a significant factor in maintaining health and quality of life, affecting as it may the patient's ability to eat and even speak. However, if the conclusions of this paper are unsurprising, they are nonetheless important. Domiciliary dental services are increasingly difficult to access and even unavailable, but the results of this study serve to highlight just how critical these services can be for people who are unable to access dental care in the practice setting.

The authors finish by stating that PCTs need to invest in domiciliary denture services and that more research is needed to investigate the effectiveness of other dental treatment in a domiciliary setting. It is hoped that this paper will provide a spur in both these areas. As the UK population continues to age, domiciliary services will surely become more, not less, important.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 203 issue 2.

Rowena Milan,
Journal Editor

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FULL PAPER DETAILS

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AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

Domiciliary care enables frail older people who are housebound to access dental services. Although the provision of dentures is the commonest treatment undertaken in the domiciliary setting, no randomised controlled trials have been undertaken to investigate the effectiveness of domiciliary denture care. Studies on dental hospital patients suggest that new complete dentures improve oral health-related quality of life. However, housebound patients are likely to be older and have reduced ability to adapt to new dentures because of severely resorbed ridges and compromising medical conditions. This research was undertaken to provide an accurate evidence base for domiciliary denture care. In the new dental contract, domiciliary care is an 'additional service'. Providers need an evidence base so they can lobby primary care trusts to commission domiciliary services for this vulnerable section of the population.

2. What would you like to do next in this area to follow on from this work?

This study showed that a domiciliary denture service improves oral health-related quality of life. Prevalence of edentulousness is falling and a substantial proportion of housebound patients have some remaining natural teeth. Further studies are required into the effectiveness of other dental interventions in the domiciliary setting.

Secondly, further research should be undertaken to assess how the patient experience of domiciliary care is determined by clinical outcome, the physical environment in which the care is provided and the interpersonal relationships of care. It would be interesting to see if the relevance of oral health in this population changed after the receipt of domiciliary dental care.

COMMENT

The Adult Dental Health Survey in 1998 revealed the prevalence of edentulousness to be 57% in UK adults aged over 75. Forty-one percent of complete denture wearers admitted to having problems. Many in this group are frail and have multiple medical conditions, mobility problems, and find accessing dentistry difficult, which along with their polypharmacy can influence their handling. A majority of them may well benefit from a *quality* domiciliary dental service. Such care is becoming increasingly difficult to access because fewer GDCPs now provide this type of care and only a limited number of salaried services offer home visits.

The literature contains very little relating to the effectiveness of domiciliary visits; studies into this frail group on their quality of life measures have been undertaken in a dental hospital rather than a domiciliary setting. This paper presents the first data from a randomised controlled trial of domiciliary dental treatment.

Pearson and colleagues set out to show that participants who received new dentures experienced fewer oral health related problems compared to those who only received home visits from the dental team. The study made use of a research assistant to interview the participants using the modified version of OI DP. It was emphasised that honesty in response to the questions was vital, and confidentiality was assured. The result was a more accurate picture of the situation than if the research dentist had asked the same questions.

The results showed that the provision of well-made complete dentures on a domiciliary basis improved the quality of life for this particular group of people; this was not solely as a result of regular and frequent visits by a health care professional. This has implications for commissioners of services throughout the country, both in terms of cost and manpower. Domiciliary dentistry is time consuming, often provided under difficult circumstances and requires a skill not always available. It still demands that the dental team provides the highest standards of care. This paper demonstrates that it is possible to improve the quality of life in this frequently neglected group of people. It provides evidence for Trusts and Health Boards when planning a comprehensive dental service.

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