IMPACT OF DENTAL SERVICES ON QUALITY OF LIFE

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Abstract

Background

Health-related quality of life (HRQoL) measures have become important when determining health priorities, but only five longitudinal studies limited to older adults and/or to subjects with an oral disadvantage have investigated the association between routine dental care and HRQoL. The aims in this study were to determine if dentist visiting or the volume, complexity and cost of general dental care, and baseline oral HRQoL and treatment need were associated with changes in HRQoL, and/or modify the impact of dental care on changes in HRQoL.

Methods

The project was an observational prospective cohort study of a sample of randomly selected dentate adult Tasmanians surveyed in 2006 and followed over a one-year period. The collection procedures comprised a computer-assisted telephone interview, an oral epidemiological examination, a baseline mail self-complete questionnaire, a service use log book, and a twelve-month mail self-complete questionnaire. Change in HRQoL was measured by change in the summary measure of the Oral Health Impact Profile (OHIP-14 severity) and change in the EuroQol index (EQ-5D), global oral and general transition statements, and follow-up OHIP-14 severity.

Results

From 1,745 eligible household numbers, 59.7% were interviewed, of whom 43.7% received epidemiological examinations. Of those, over three-quarters (77.4%) completed the baseline mail questionnaire. Nearly three-quarters of those who completed the baseline self-complete questionnaires completed the twelve-month follow-up questionnaire (73.5%).

More than half of the respondents (53.8%) visited a dental practitioner, the vast majority of whom (94.9%) saw a private sector dentist. The most common types of dental care received were diagnostic, preventive and restorative services.

When the dependent variable was change in mean OHIP-14 severity, visiting a dentist was associated with a statistically significant worsening of oral HRQoL after adjusting for confounders. In contrast, visiting a dentist was associated with a significant improvement in quality of life when the dependent variable was the global oral health transition statement, although that association was not homogeneous. The global general health transition statement showed an unfavourable association of dental visits, although it was not statistically significant. Follow-up OHIP-14 dental attendance was associated with worsening QoL, although the association was not statistically significant.

When change in HRQoL was measured by the global general health transition statement, high compared to low volume of dental care had a statistically significant favourable influence on HRQoL, although there was effect modification. With the global oral health transition statement, high complexity dental care was associated with a statistically significant worsening of HRQoL, while high cost dental care was associated with a statistically significant improvement of HRQoL. Across all measures of HRQoL, the survey participant factors most often subject to effect modification where those related to socio-economic status, particularly education and occupation.

Conclusions

The results varied according to which dependent measure of change in HRQoL was used. Dental care had a differing effect on general health compared to oral health, although the effects on general health varied considerably among some population groups. Researchers need to devise consistent definitions of health, HRQoL, oral health and oral HRQoL.

Statement

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution to Leonard Alfred Crocombe and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968. I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library catalogue, the Australasian Digital Theses Program (ADTP) and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

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