

Better designed research needed to quantify the contribution of implants to the health and well being of patients

Locker D. *Patient-based assessment of the outcomes of implant therapy: a review of the literature.* *Int J Prosth.* 1998; 11: 453-461

Objective To review implant therapy studies which have included patient-based assessments as indicators of treatment outcomes.

Data Sources For the years 1980-1998, MEDLINE, Index Medicus and the bibliographies of identified papers were screened.

Study Selection Studies not involving patient-based assessment of treatment outcomes were excluded

Data extraction Each identified paper was classified by study design; subject type and outcome measure and qualitative synthesis carried out.

Results 22 papers were identified describing 19 studies, 2 were cross-sectional, 7 were retrospective, and 4 used a one-group prospective design. Two used a two-group prospective design, and 1 a within-subject crossover trial. Only 3 were randomised-controlled trials. There was relatively little consistency across studies in what was measured and how it was measured.

Conclusions Further research is needed to quantify the contribution of implants to the health and well being of patients unable to tolerate conventional dentures. This research should utilise randomised controlled study designs. Outcome measures need to be more carefully selected to reflect patients' concerns.

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Commentary

Loss of teeth can result in profound disturbances — significant impairment, disability and handicap.

Clinical studies have clearly demonstrated the excellent long-term tissue responses associated with osseointegrated dental implants. Implant treatment is an accepted restorative option with predictable longevity.

In this critical review, the author acknowledges that clinical experience suggests that implant therapy is also of major benefit to patients in terms of functioning and quality of life. The review, however, identified only nineteen studies between 1980 and 1998 that included patient-based assessments of implant treatment outcome. The author is critical of many aspects of most of these studies and concludes that further research is necessary to quantify the contribution of osseointegrated

implants to the health and well-being of patients.

How can improvements to a patient's well-being be measured? It is clear that whichever method or instrument is used, it must be both reliable and valid.

The studies included in the review revealed that a wide variety of outcome measures were used to assess self-perceived chewing ability, denture satisfaction, personality, self-esteem, body image and psychological and social well-being. The majority of studies used *ad hoc* scales and questionnaires, and the author rightly questions both the reliability and validity of these measures.

Even where standardised scales and measures of demonstrated reliability and validity, such as the General Health Questionnaire were used, they were not always used appropriately or with justification.

In addition to our clinical experience, the balance of the published evidence examined in this review suggests that dental implant treatment can be of value to the well-being of our patients. There is little scientific evidence in the reviewed articles that implant treatment is superior to alternative restorative treatments.

The present article is a valuable contribution, identifying the need for more rigorous research to accurately quantify behavioural/psychosocial outcomes of implant treatment.

Locker argues for the development of a reliable and valid method to detect clinically meaningful changes, in order to enable such research.

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