

Editorial

Research on oral health and the quality of life – a critical overview

Research on oral health and quality of life has its origins in a series of seminal papers published in the mid 1970s to the late 1980s. These capitalized on changing definitions of health and emerging models of disease and its consequences such as that contained within the WHO's International Classification of Impairment, Disability and Handicap. The intent of these papers was to provide a conceptual and theoretical basis for the development of subjective oral health indicators. These were concerned with assessing the extent to which oral disorders compromised physical and psychosocial functioning and were meant to complement the clinical indices that occupied centre stage in surveys of the oral health of populations and clinical groups. These papers began something of a paradigm shift in dental research; from a strictly biomedical model, which was narrow, biologically based and placed undue emphasis on disease, to a biopsychosocial model, which was more holistic, incorporated issues such as functioning and well-being and was more compatible with the primary purpose of health care, restoring and enhancing health.

These papers stimulated the development of a number of measures of the functional and psychosocial impacts of oral disorders. The content, development and performance of the first ten were presented and compared at a major conference held at the University of North Carolina in 1997. Many, if not most, were expert rather than patient-based, and put together on a somewhat ad hoc basis without recourse to classical test theory. However, their psychometric properties in terms of validity, reliability and responsiveness were adequate and several, such as the Oral Health Impact Profile, the Geriatric (General) Oral Health Assessment Index, the Oral Impacts on Daily Living and the Child Oral Health Quality of Life Questionnaires perform well, have become accepted as standards and are becoming widely used in surveys and clinical outcome studies.

A notable feature of the 1997 conference was a terminological shift, so that the measures available at the time were renamed as measures of 'oral health-related quality of life' (OHRQoL). This seemed like a good thing to do since the term 'quality of life' has a certain resonance and political and policy appeal and offered the potential to broaden the scope of enquiry into the consequences of oral disorders; from functional and psychosocial impacts to quality of life itself. It paralleled a similar shift in medicine and was compatible with influential contemporary models of disease and its outcomes, such as that of Wilson and Cleary (1995), which has 'quality of life' as its end-point. However, that the term 'quality of life', whether

health-related or not, carries with it certain conceptual and methodological implications was and continues to be ignored. As have the numerous critical commentaries regarding the measurement of health-related quality of life and quality of life published in medical journals on which dental research might usefully have drawn. This points to a core weakness in 'OHRQoL' research; the general failure to consult the substantial literature on health and quality of life that has been produced by disciplines other than dentistry.

Nevertheless, research has proliferated so that oral health and its quality of life outcomes has become a major research focus in dentistry, with the development of additional measures specific to populations or clinical groups and the publication of a plethora of papers. The extent of the growth in this field of enquiry can be illustrated by a scrutiny of electronic data bases. A search of electronic data bases furnished 39 references for the period 1995-1999 and 124 for the period 2000-2004. For 2005 to the present the number had reached 226.

Given the volume of publications in the last decade, a critical overview of the field is difficult since there will inevitably be exceptions to any of the points raised. What follows then is a brief commentary on some of the main limitations of the work produced to date, along with suggestions as to where further research is needed.

Most studies of OHRQoL are characterized by a lack of conceptual precision. Concepts are rarely defined and terms such as oral health, oral health-related quality of life and quality of life are used as if they were synonymous and interchangeable. Where they are defined, there is often little agreement about what the concepts refer to. Moreover, the measurement implications of these different concepts remain unexamined. New terms such as 'smile-related quality of life' have emerged, which, to say the least, appear to have no compelling theoretical or psychological basis. To use the term 'quality of life' as a universal suffix is to dilute its value and render it meaningless. Similarly with the term 'positive health'. Proponents of the concept pop up on a regular basis to claim that most measures are at best limited or at worst misguided since they focus solely on negative oral health and ignore the positive. However, definitions and measures of positive oral health are conspicuous by their absence. While notions of positive health have been around for more than fifty years, the theoretical and methodological basis for positive oral health has not yet been the subject of a review paper or a conference symposium. It may well be that the inclusion of positive oral health would increase our understanding of

oral health as a social and psychological phenomenon, but this remains to be demonstrated. After more than twenty years of effort, we should be able to agree on core concepts, their definition and how to measure them. Without such a consensus, scientific discourse around an object of study, oral health and quality of life in this instance, is impossible.

Although it is claimed that current measures assess 'OHRQoL', their constituent items are largely limited to symptoms and functional and psychosocial impacts. That is, they address oral health but neglect to assess the *quality of life* consequences of these symptoms and impacts, as is required by the concept of oral health-related quality of life. The assumption on which current measures are based is that oral impacts, whether negative or positive, inevitably affect quality of life in negative or positive ways. However, this reflects the personal and professional values of those conducting 'OHRQoL' research; values that may or may not be shared by those who complete these measures. Most of the measures in common use were developed when interest in measuring subjective oral health was in its infancy. A critical scrutiny and revision of these measures, in terms of their content, the methods used to generate that content and the values on which they are based, is overdue.

Of the almost 400 studies that have been published since 1990, the overwhelming majority are cross-sectional and limited to a description of the impact of oral disorders in various populations or clinical groups. The main analytic approach has been to link these impacts to clinical indicators of oral disease. Many of these studies lack a clear purpose other than to measure for measurement's sake; they do not address any theoretical, clinical or policy relevant issue and do not capitalize on the theoretical models on which current measures are implicitly based. Less than a tenth of the papers assess the outcome of clinical or other interventions, and even here the analysis is usually limited to a comparison of pre-post treatment means. Again, these papers fail to draw on the wider literature concerning the reporting of clinical trials so that key concerns such as the minimum important difference and how it is to be determined have not been addressed.

Given its origins within dental public health, the disciplinary basis of most current studies of oral health and quality of life is epidemiology rather than sociology and psychology. Consequently, there is a reliance on epidemiological methods and analytic techniques rather than concepts and methods drawn from the social sciences. While not entirely inappropriate, the epidemiological approach has some limitations. For example, reducing complex human experiences such as health, health-related quality of life or quality of life, to a binary variable, you either have it or you don't, is at best questionable. Moreover, epidemiology is not well placed to deal with a central sociological issue in health and quality of life research, that of meaning. As Rapkin et al (1994) observe, "data are gathered on the level of functional limitation, symptom distress or global well-being without fully understanding the meaning that these terms carry for each patient".

One of the main achievements of 'OHRQoL' research is that it has given the patient a voice. It embodies the notion that the patient's perspective has equal legitimacy to that of the clinician and should be taken into account when evaluating the consequences of disease and the outcomes of treatment for that disease. This is evident in the adoption by professional bodies such as the Canadian Dental Association of definitions of oral health that are social rather than biological and which embrace the patient's experience and perceptions. Nevertheless, the potential of 'OHRQoL' research has yet to be realized. I would suggest that for the field to develop and progress outstanding conceptual and methodological issues need to be resolved and a consensus reached on concepts and definitions. Current measures need to be refined and enhanced so that they are able to address core concepts more appropriately. Research is needed that explores the practical applications of measures and research findings in clinical and public health practice; specifically, research is needed to develop comprehensive predictive models of oral health outcomes that facilitate interventions at individual and population levels. And more fundamentally, insights from the broader literature on measuring health and quality of life need to be incorporated into 'OHRQoL' research.

References

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