Oral–Health–Related Quality of Life in Children and Adolescents

William Murray Thomson, PhD[a,*], Hillary L. Broder, PhD[b]

KEYWORDS

• Children • Quality of life • Self-report • Dental care • Health services research

KEY POINTS

- Child oral–health–related quality of life (OHRQOL) measures enable determination of the impact of a child's oral condition on the child's life.
- Several scales are available for use, and all have acceptable psychometric properties.
- Child OHRQOL measures can be used to gauge the effect of clinical interventions, such as dental treatment under general anesthesia, orthodontic treatment, and treatment of orofacial clefting.

Health is a subjective state, and oral health is no exception.[1] Locker defined oral health as "a standard of the oral tissues which contributes to overall physical, psychological and social well-being by enabling individuals to eat, communicate and socialise without discomfort, embarrassment or distress and which enables them to fully participate in their chosen social roles."[2] His introduction of the concept of oral–health–related quality of life (OHRQOL) and adaptation of the World Health Organization model of the International Classification of Impairments, Disabilities and Handicaps to oral health[3] spurred a great deal of research effort over the following 2 decades. This focused largely on the development and validation of what are commonly known as "OHRQOL measures" but which, in fact, represent the impact of oral conditions on people's lives. Those impacting conditions might be disease-related (such as dental caries) or anatomic (such as malocclusion or orofacial clefting). Initially, the developmental work focused on adults, with measures developed for use among older people but subsequently validated for use with younger adults, with much attention to their testing and validation in different cultures and settings.

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[a] Faculty of Dentistry, The University of Otago, PO Box 56, Dunedin 9054, New Zealand; [b] Cariology and Comprehensive Care, NYU College of Dentistry, New York University, 345 East 24th Street, New York, NY 10010, USA
* Corresponding author.
E-mail address: murray.thomson@otago.ac.nz

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By the turn of the last century, attention had somewhat inevitably shifted to the issue of OHRQOL measurement in children. It was not that it had been avoided, rather that children's self-reporting on their oral health posed more challenges. Very young children tend to be unreliable informants, while their ongoing social and cognitive development meant that it was likely that different measures would be needed for different ages. Moreover, the development and rollout of adult OHRQOL measures was seen as having been laborious and inefficient, with the typical pattern being to develop a measure in one age group and culture and then to validate and test it in other cultures, age groups, and settings. Such work was onerous and repetitive, and there was always the chance that any version tested and developed in another culture would end up markedly different from the original measure, with cross-cultural comparability sacrificed for intracultural validity. A prime example of this phenomenon was the development of the Malay version of the Oral Health Impact Profile,[4] which resulted in a measure with markedly different item content from the original one.

Accordingly, Broder, Reisine, and Locker obtained US National Institutes of Health funding and convened an international group of dental health services researchers in 2000 with the aim of developing a child OHRQOL measure simultaneously in a wide range of cultures and settings. It was hoped that coordinating this work would make the testing and validation stages considerably more efficient. Consideration also had to be given to the readability and formatting of the child questionnaires to safeguard that the language was age-appropriate and they were designed and constructed to be easily and reliably completed (such as through using appropriate font sizes and alternate line colors). That work resulted eventually in 2 measures (known as the Child Perceptions Questionnaire [CPQ] and the Child Oral Health Impact Profile [COHIP]), and these have been the most widely used in recent years. They are not the only scales that have been developed for use with children, however. **Table 1** presents an overview of the available child OHRQOL measures. Five are used directly with children, and 3 require proxy informants—typically caregivers or parents—because they are intended for use with much younger children.

Gilchrist and coworkers[14] systematically appraised the 3 most commonly used child-report measures (CPQ, Child-OIDP, and COHIP). They found that, although the CPQ had been the most frequently used measure, there was sound evidence for the validity and reliability of each. Most of the 199 articles reporting fieldwork had been from cross-sectional studies. With only 3 longitudinal studies published, there was a need for more data on the responsiveness and evaluative properties of those scales. Considerably more longitudinal work with the 2 scales, which use proxy informants (the Early Childhood Oral Health Impact Scale [ECOHIS] and the Parent[P]-CPQ), has provided good evidence for their responsiveness.[15,16] Satisfactory demonstration of test-retest reliability, however, remains an issue with the latter. To date, only 1 study has examined it, finding it acceptable in a Saudi Arabian clinical sample.[17] The relative lack of test-retest data is largely because the longitudinal work has been confined to clinical samples of children undergoing dental treatment under general anesthesia. Researchers (and ethics committees) are understandably wary of increasing respondent burden unnecessarily, requiring already stressed parents to complete another questionnaire would have been onerous for them and likely to have affected the studies' follow-up rates.[16] Studies such as these underline the challenges encountered in developing, testing, and using OHRQOL measures with children and their families: the work can be exacting and unpredictable, and there is no such thing as the perfect study; all have had to make compromises in some way.[18]