Construct Validity of the Short Forms Child Perceptions Questionnaire (CPQ$_{11-14}$)

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Background: Our earlier study found that the full version of CPQ$_{11-14}$ may not be appropriate for children in Hong Kong. Shorter versions with 8 and 16 items by using item impact and stepwise regression methods are available. There are evidences that the short forms demonstrate good validity and reliability in Western countries. Objectives: To determine the appropriateness of the use of short forms CPQ$_{11-14}$ in Hong Kong with respect to the four established domains, namely, oral symptoms (OS), functional limitations (FL), emotional well-being (EWB) and social well-being (SWB). Methods: The instrument was administered to 504 children aged 12 (baseline) and re-administered 3 years later. Structural Equation Modeling (SEM) approach was used to investigate the construct validity of the short form instruments for its implementation in Hong Kong. Results: The usual goodness-of-fit measurements indicated the measurement models using short forms CPQ$_{11-14}$ fit the data well for both methods (item impact and stepwise regression). The models with 8 items fit the data better than the models using 16 items. A second-order model using oral-health-related quality of life (OHRQoL) as an overall domain was proposed to account for the correlations among the four fundamental domains (OS, FL, EWB, SWB). The large values of the standardized factor loadings and explained variances of variables (R2) indicated good construct validity and reliability of the short forms CPQ$_{11-14}$. Conclusion: The results in our study supported the previous result of the short forms of CPQ$_{11-14}$ demonstrating good construct validity and reliability. The questions used in short forms contained information measuring the OHRQoL of children in Hong Kong appropriately.

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