Evaluation of Child Perceptions Questionnaire (CPQ₁₁₋₁₄) Using Structural Equation Modeling

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Background: The Child Perceptions Questionnaire for children aged 11 to 14 years (CPQ₁₁₋₁₄) was developed in Toronto as a measure of the oral health-related quality of life (OHROoL). Previous research showed that CPQ₁₁₋₁₄ demonstrates good validity and reliability. Objectives: To determine the appropriateness of the use of CPQ₁₁₋₁₄ 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 were administered to 504 children aged 12 (baseline) and were followed up 3 years later. Confirmatory factor analyses were carried out using the Structural Equation Modeling (SEM) approach to determine the construct validity of CPQ₁₁₋₁₄. Results: The results showed that the measurement models for OS and FL fit the data well while the models for EWB and SWB fit the data poorly. The results also indicated that the overall model using CPQ₁₁₋₁₄ with all 37 items fit the data poorly. Higher-order model and item parceling were also considered but there was no improvement in the model fitting. Conclusion: The domains OS and FL of the instrument can be used directly for children in Hong Kong as the physical elements of the children in the two regions are similar. The poor fit for EWB and SWB demonstrates the psychosocial elements between Hong Kong and Western children are probably different due to cultural differences. Modification of the instrument may be needed for its use in Hong Kong.

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