



Reliability and Validity of the Self-report Quality of Life Questionnaire for Japanese School-aged Children with Asthma (JSCA-QOL v.3)

<http://www.firstlight.cn> 2006-03-16

Background: Asthma is a chronic disease prevalent in children which threatens their quality of life (QOL) through unexpected asthma attacks and/or the burden of daily self-management. As some conditions of chronic illness make it difficult for a child to accomplish normal developmental tasks, there may be fewer opportunities for the child to obtain a sense of achievement. This study investigated the reliability and validity of the Quality of Life Questionnaire for Japanese School-aged Children with Asthma Version 3 (JSCA-QOL v.3). This questionnaire includes 25 items with a 5-point Likert Scale format over five domains: "asthma attack triggers", "change in daily life", "family support", "satisfaction with daily life" and "restriction in participating in daily activities", and one summary scale.

Methods: In the present study, 2,425 children with asthma aged from 10 to 18 years were investigated in Japan. The internal consistency reliability of each domain was investigated with Cronbach's α reliability coefficient, and test-retest reliability with Spearman's correlation coefficient. Factorial validity by factor analysis using maximum-likelihood extraction with promax rotation was performed. Data analysis was performed using SPSS 12.0J.

Results: The final number of effective replies was 2,097 (the rate of effective data was 86.5%). "Asthma attack triggers", "change in daily life", "family support", "satisfaction with daily life" and "restriction in participating in daily activities" showed a high internal consistency (Cronbach's $\alpha = 0.66$ — 0.86) as well as good test-retest reliability (Spearman's $\rho = 0.60$, $p < 0.01$).

The factorial validity was appropriate (KMO value = 0.90), because it was conceivable that the five factors extracted from factor analysis would be the same as in our hypothesis and support constructive validity. In addition, there was good correlation between the summary scale and the total QOL score (Spearman's $\rho = 0.58$, $p < 0.01$).

Conclusions: The present study showed that the JSCA-QOL v.3 is a reliable and valid measurement tool that can be used to appropriately assess QOL in school-aged children with asthma. As the JSCA-QOL v.3 can be easily completed in about 10 minutes, it can contribute as an efficient evaluation tool of the outcome of medical treatment through continual utilization in the outpatient clinic. The JSCA-QOL v.3 allows a health provider to help school-aged children with asthma to achieve their developmental tasks.

[存档文本](#)