



Description of the KIDSCREEN-10 index

Health-Related Quality of Life Questionnaire
for Children and Young People

Global HRQoL index



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The **KIDSCREEN** generic health related quality of life measures for children and adolescents were developed within the European project "Screening and Promotion for Health-related Quality of Life in Children and Adolescents - A European Public Health Perspective" funded by the European Commission. The project took place over 3 years (2001-2004) and participants of the project are Austria, Czech Republic, France, Germany, Greece, Hungary, Ireland, Poland, Spain, Sweden, Switzerland, The Netherlands, and the United Kingdom (Acknowledgement: The KIDSCREEN project was financed by the European Commission grant number QL-G-CT-2000- 00751 within the EC 5th Framework-Programme "Quality of Life and Management of Living Resources"). Three different KIDSCREEN instruments were developed to assess health related quality of life in children and adolescents (HRQoL) aged between 8-18 years. The instruments can be used as generic instruments to assess quality of life in children and adolescents with a chronic illness. They aim to identify children at risk, in terms of their subjective health, and to suggest appropriate early interventions by including the instruments in health services research and health reporting. For epidemiological studies and surveys, and for monitoring child and adolescent health related quality of life (HRQoL) a short KIDSCREEN questionnaire was provided.

The **KIDSCREEN project** used a simultaneous approach to include 13 European countries in the cross-cultural harmonisation and development of the measures. The generation of the questionnaires was based on literature reviews, expert consultation, and children's focus groups in all participating countries to identify dimensions and items of HRQoL which were relevant to respondents in all countries. The final instruments were used in representative mail surveys of HRQoL in 1800 children and their parents per country (total n > 20.000).

The **KIDSCREEN-10 index** was developed from the longer KIDSCREEN-27. A Rasch analysis was applied to identify those items which represent a global unidimensional latent HRQoL trait. The results of the Rasch analysis provide an unidimensional index with 10 items. The psychometric properties of this index are that the distribution of raw-scores resembles the theoretical expected normal distribution, thus the index provides a good discriminatory power along

the HRQoL-trait-continuum, shows only few ceiling/ floor effects, and even raw-scores may provide interval-scaled HRQoL measurement. In addition, the good internal consistency reliability (Cronbach's Alpha = .82) and the good test-retest reliability / stability ($r = .73$; ICC=.72) enables a precise and stable HRQoL measurement.

Additional statistical analyses show that the **KIDSCREEN-10 index** is able to differentiate between different groups. Children and adolescents with a low score on the family affluence scale (FAS, effect size $d=.47$), with behavioural problems (SDQ, effect size $d=.1.30$) and with a high number of psychosomatic complaints ($d=1.69$) display a significantly lower health related quality of life in comparison to the respective comparison group.

Answering the **KIDSCREEN-10 index** requires only a few minutes. A proxy measure for parents or primary care-givers is also available. The KIDSCREEN measure is available in several languages, e.g. Czech, Dutch, English, French, German, Greek, Hungarian, Polish, Spanish, and Swedish (new translations of the KIDSCREEN questionnaires will be included on the website www.kidscreen.org). A score can be calculated, t-values and percentages will be available for each country stratified by age and gender.

This index proves to be a very short and psychometric sound measure which sufficiently represents the longer KIDSCREEN profiles. It can be used in national and international epidemiological studies and surveys to assess health related quality in children and adolescents.

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