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## **Description of the KIDSCREEN instruments**

KIDSCREEN-52, KIDSCREEN-27 & KIDSCREEN-10 index  
Health-Related Quality of Life Questionnaires for Children and Adolescents



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### ORIGIN

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". The project was funded by the European Commission and took place over 3 years (2001-2004). Participants in the project were 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 QLG-CT-2000- 00751 within the EC 5th Framework-Programme "Quality of Life and Management of Living Resources").

### AIM

The main objective of the project was the co-operative European development of a standardised screening instrument for children's quality of life for use in representative national and European health surveys. In addition, the instrument can be used as a generic instrument to assess quality of life in children and adolescents with a chronic illness. The aim is to identify children at risk in terms of their subjective health and to suggest appropriate early interventions by including the instrument in health services research and health reporting.

### POPULATION

The KIDSCREEN measure is applicable for healthy and chronically ill children and adolescents from 8 to 18 years. A proxy measure for parents or primary care-givers is also available.

### ADMINISTRATION

The KIDSCREEN is a self-report measure which can be administered in hospitals, medical establishments, and schools by professionals in the fields of Public Health, Epidemiology, and Medicine.

Time Required:

KIDSCREEN-52: 15-20 minutes;

KIDSCREEN-27: 10-15 minutes;

KIDSCREEN-10 Index: 5 minutes

Scoring: Scores can be calculated for each of the ten dimensions. T-values and percentages will be available for each country stratified by age, gender and socio-economic status.

Languages: Czech, Dutch, English (UK, IE), French, German (AT, CH, D), Greek, Hungarian, Korean (RKO), Polish, Portuguese, Spanish, Swedish

### DESCRIPTION

The KIDSCREEN instruments assess children's and adolescents' subjective health and well-being (health-related quality of life - HRQOL). They were developed as self-report measures applicable for healthy and chronically ill children and adolescents aged from 8 to 18 years. The KIDSCREEN project used a simultaneous approach to include 13 European countries in the cross-cultural harmonisation and development of the measure. The generation of the questionnaire was based on literature reviews, expert consultation, and children's focus groups in all participating countries. This was done to identify dimensions and items of HRQOL which are relevant to respondents in all countries.

The KIDSCREEN-52 instrument measures 10 HRQoL dimensions: Physical Well-being (5 items), Psychological Well-being (6 items), Moods and Emotions (7 items), Self-Perception (5 items), Autonomy (5 items), Parent Relations and Home Life (6 items), Social Support and Peers (6 items), School Environment (6 items), Social Acceptance (Bullying) (3 items), Financial Resources (3 items). It was constructed and pilot tested using the data of more than 3.000 European children and adolescents. In addition to common psychometric analyses, Item-Response-Theory Analysis and Structural Equation Modelling were performed to determine the optimal item and scale characteristics of the questionnaire. One focus of analyses was to identify items showing differential item functioning (DIF). The control of DIF enables comparable measurement of the identified quality of life dimensions across the 13 European countries. The KIDSCREEN-52 was used in representative mail surveys of HRQOL in approximately 1800 children and their parents per country (total n = 22296) and normative data was produced. The final analysis of the instruments involving national and cross-cultural analyses confirmed the results of the pilot test. The sub-scales enable true cross-cultural measurement on interval scale level by fulfilling the assumption of the Rasch-model and displaying no DIF.

Additionally, all three versions are available for parents and primary-care givers. 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](http://www.kidscreen.org)).

## RELIABILITY

KIDSCREEN-52: Cronbach's Alphas were calculated for the ten KIDSCREEN dimensions and range satisfactorily between .76 (Social Acceptance) -.89 (Financial Support).

KIDSCREEN-27: Cronbach's Alphas were calculated for the ten KIDSCREEN dimensions and range satisfactorily between .79 (Physical Well-being) -.84 (Psychological Well-being).

KIDSCREEN-10 Index: Cronbach's Alpha is .82.

## VALIDITY

Convergent and discriminant validity were tested using information on the children's and adolescents' physical (Children with Special Health Care Needs screener for parents, CSHCN, Bethell et al., 2002) and mental health (Strength and Difficulties Questionnaire, SDQ, Goodman et al., 2000). For example, correlations up to .55 were found when correlating the KIDSCREEN dimensions with the frequency of physical complaints. In addition to this, in each country the relationship between national HRQoL instruments for children and adolescents and the KIDSCREEN versions were analysed and showed overall satisfactory results.

## RESPONSIVENESS

The high correlations between the KIDSCREEN instruments and the children's and adolescents' health status can be considered as a good basis for potential responsiveness.

## STRENGTHS

The international, collaborative nature of the KIDSCREEN project provided many challenges in terms of producing an instrument, which is conceptually and linguistically appropriate for use in many different countries. By giving each country the possibility to be involved at the early stages of the instrument development (the item construction phase), the KIDSCREEN measures are the first truly cross-national HRQOL instrument for use in children and adolescents. The KIDSCREEN instruments can contribute to European policies by providing information about the types and distribution of quality of life impairments (nationally as well as Europe wide). They enable a better understanding of perceived health in children and adolescents and can help to identify populations at risk.

In addition, another strength is the co-operation with the DISABKIDS project which aims at developing health-related quality of life instruments for children and adolescents of the age-groups 4-7 and 8-16 with chronic conditions such as asthma, cerebral palsy, diabetes mellitus, epilepsy, juvenile arthritis, serious skin diseases, over-weight problems and cystic fibrosis. DISABKIDS proxy measures for parents and carers are also available. Both projects collaborated as closely as possible during the instrument development phases to ensure a joint methodology and a wide coverage.

## WEAKNESSES

As the KIDSCREEN instruments for children, adolescents and their parents are newly developed instruments more future research in clinical settings is desired.

## REFERENCE

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