

Development and validation of a new Quality of Life measure for children living in contexts of vulnerability

Faculté de médecine Université de Montréal et du monde.

AB

Johanne Higgins¹, Lise Poissant¹, Caline El-Khoury² ¹Professors, School of Rehabilitation, Université de Montréal, ²PhD candidate, Université de Montréal

May 24th 2018

Introduction



The ScoPeO-Kids research project is funded as part of the development project 'Growing Together' (HI), financed by the Ikea Foundation to create a measure of quality of life (QoL) of all children, regardless of their gender, age or disability status growing up in contexts of vulnerability

Objective

This study aims to develop and validate a QoL measure for children aged 4 to 18 years living in refugee camps. The measure will have the capacity to assess the impact of interventions delivered to children presenting or not with a situation of handicap



Methodology

♦ Data collection

Administration of a first version of the ScoPeO-Kids (43 items – on a 5-point scale – strongly agree to strongly disagree)

 \diamond Refugee camps in countries involved in the *Growing Together* project,

- ♦ Thailand (camps of Mae Hong Son and Tak Provinces)
- Bangladesh (camps of Nayapara and Kutupalong)
- ♦ Pakistan

\diamond Data analyses: Creation of a 'ruler' (interval scale) to measure QoL

5

 \diamond Rasch analysis to assess:

3



6





8

9

10

11

Results

♦ Sample

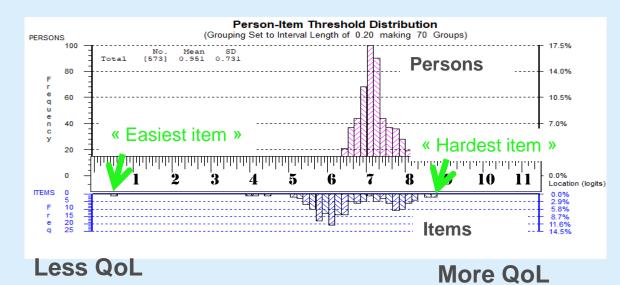
total of 574 children interviewed

Participant characteristics							
Country, no. (%)							
Thailand	207 (36)						
Bangladesh	176 (31)						
Pakistan	191 (33)						
Gender, no. (%) male	302 (53)						
Missing no. (%)	4 (0.7)						
Age, mean (SD)	10,7 (3.7)						
4-8, no. (%)	195 (34)						
9-12, no. (%)	177 (31)						
13-18, no. (%)	201 (35)						
Missing	1 (0.2)						

Participant characteristics

$\diamond\,$ Verification of unidimensionality

Principal component analysis revealed one main factor: all items measure QoL



Faculté de médecine

Université nn de Montréal et du monde.

Validity

♦ The 43-item QoL measure does **not** meet the expectations of the Rasch model;

 The initial overall fit of data produced a significant item-trait interaction (χ2: 119.92; probability: p <0.05).

♦ 10 items did not fit:

- \diamond In general, I feel healthy
- \diamond I have playgrounds/places outside where I can play safely
- I feel good about needing help to feed, dress or bathe myself
- \diamond I can have fun even when I have pain
- \diamond I feel I can make my own decisions
- \diamond I don't feel different from other children
- ✤ I can play or spend time with my friends even when I have pain
- \diamond I do not want to change anything in my life
- \diamond I rarely cry
- \diamond I rarely feel sad



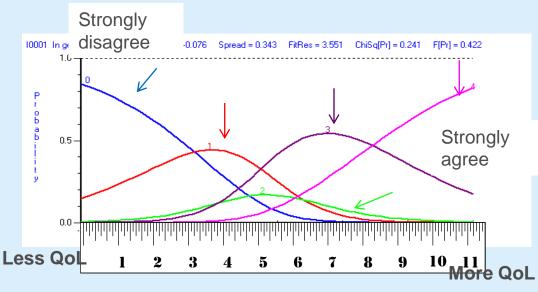
Validity

- Presence of item bias (differential item functioning)
 - \diamond No bias by **Gender**
 - \diamond No bias by Age group
 - ✤ Bias detected by Country for some items:
- 1. I feel good about doing chores at home
- 2. I have someone who listens to me when I need to talk

Reliability

♦ Person Separation Index = 0,92

 \diamond Appropriateness of response categories



 \diamond Measure is sensitive to distinguish between persons with low and high QoL

Faculté de médecine Université de Montréal et du monde.

Discussion

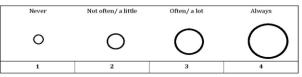
 \diamond Proposed changes to the 43-item measure:

\diamond Removal of mis-fitting items based on:

- \diamond Rasch analysis
- $\diamond~$ Discussion with research and HI team
- ♦ Qualitative comments from interviewers
- \diamond Presence of bias

Transformation of the response scale to 4 response categories

 Never
 Not offen/a little
 Offen/a little
 Always



Faculté de médecine Université de Montréal et du monde.

Conclusion

 \diamond A new 20-item measure has been created with all items on a 4-point scale:

The ScoPeO-Kids with Total score out of 100 and sub-scores per domain (5).

Now being tested for continuous validation process
Acknowledgments



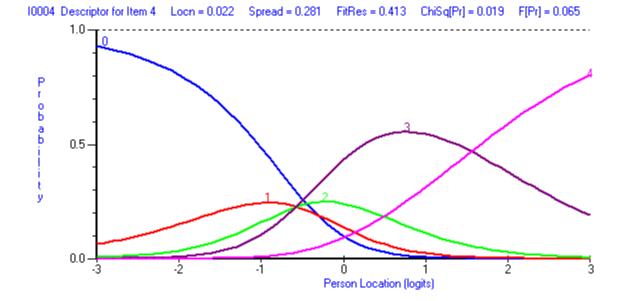
Aude Brus Stéphanie Legoff Alexey Kruk Cheryl Yeam Jodie Nguy And all the on-site staff

IKEA Foundation IKEA



Students and staff





		Never	Not often/ a little	Often/ a lot	Always	Refuses to answer	Does not understan d the question
Phys	sical well-being						
1	I am healthy						
2	I can do activities other kids my age can do						
3	I have enough food to eat						
Emo	tional wellbeing						
4	I am happy with my life						
5	I feel loved						
6	I feel I will be able to reach my goals/dreams when I am an a grown-up (earn money, continue schooling, have a family)						
7	I am worried						
8	I am sad						
Safe	ty						
9	I am afraid to go outside my house						
10	There is fighting/quarrelling at home						
Auto	nomy and self-realization						
11	I have a chance to learn and develop new things/skills						
12	I have time to do things I like						
13	My parents are proud of me						
14	My parents listen to my ideas/suggestions/opinions/what I think						
15	I feel good about doing chores/housework at home (dish washing, cooking, fetch water, collect firewood or other examples that are relevant for gender and country)						
Socia	al						
16	I am good at making friends						
17	My family eats meals together						
18	I have someone to talk to about my feelings or worries concerns						
19	I participate in activities in my community (go to church, wedding, sport day or other examples relevant for gender and country)						
20	Other kids are kind to me						