



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

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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)



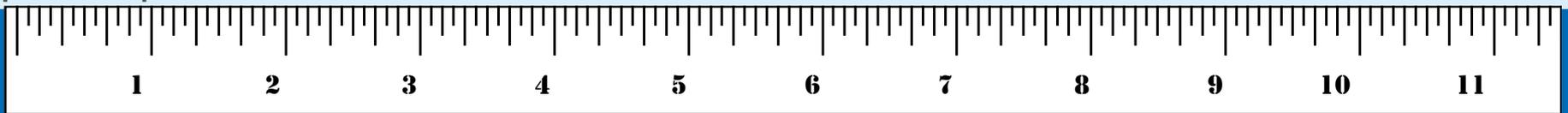
- ✧ Refugee camps in countries involved in the *Growing Together* project,
 - ✧ Thailand (camps of Mae Hong Son and Tak Provinces)
 - ✧ Bangladesh (camps of Nayapara and Kutupalong)
 - ✧ Pakistan

✧ Data analyses: Creation of a ‘ruler’ (interval scale) to measure QoL

- ✧ Rasch analysis to assess:
 - ✧ Validity
 - ✧ Reliability
 - ✧ Appropriateness of response categories

Less QoL is required to « pass »

More QoL is required to « pass »



Results

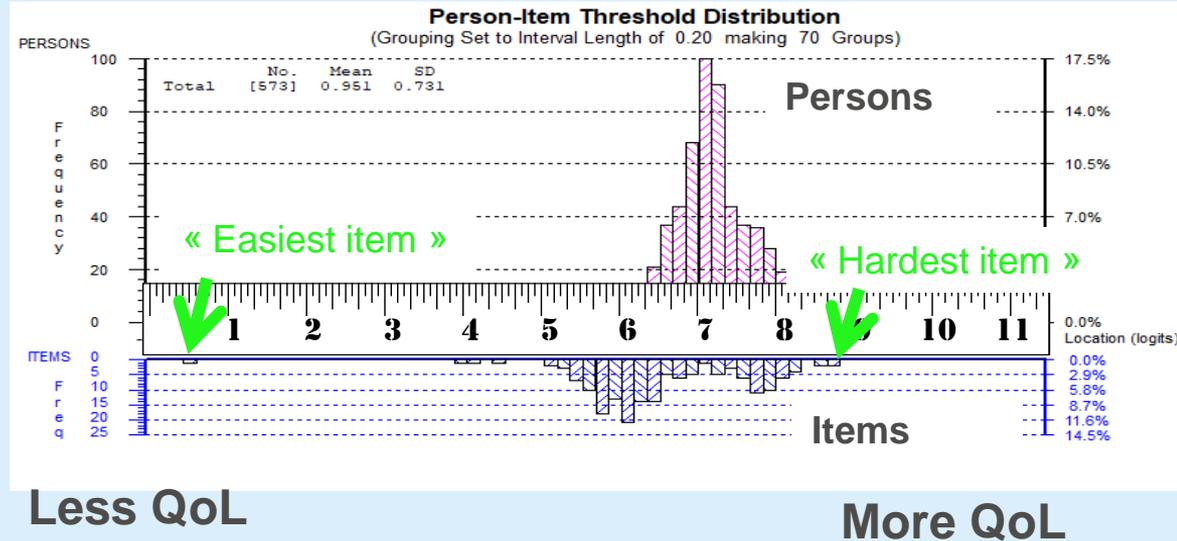
✧ Sample

✧ total of **574** children interviewed

✧ Verification of unidimensionality

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

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



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 (χ^2 : 119.92; probability: $p < 0.05$).

✧ **10** items did not fit:

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

Validity

✧ Presence of item bias (differential item functioning)

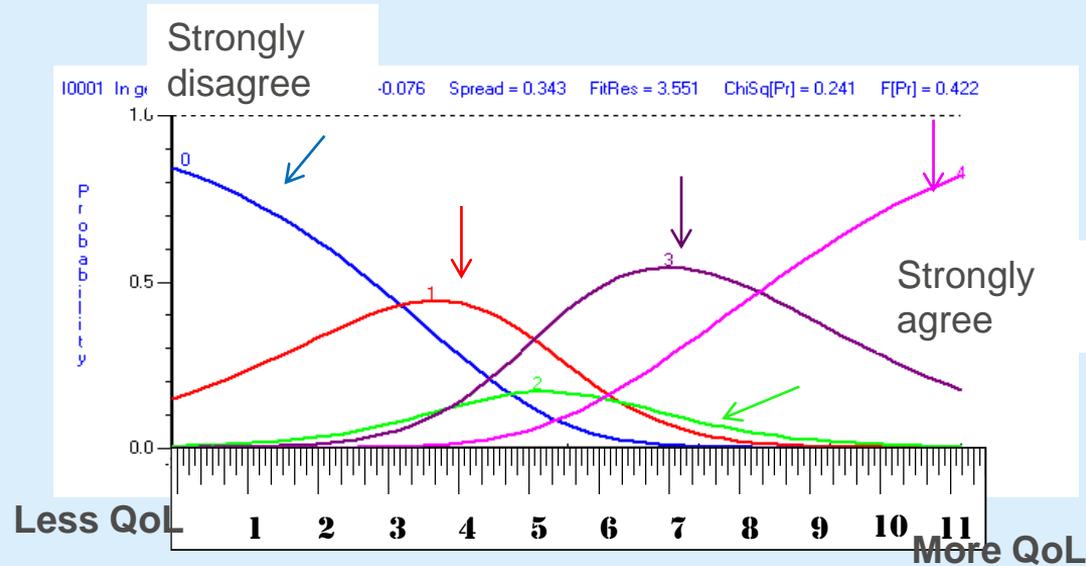
✧ No bias by **Gender**

✧ 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

✧ Appropriateness of response categories



Reliability

✧ Person Separation Index = 0,92

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

Discussion

✧ Proposed changes to the 43-item measure:

✧ Removal of mis-fitting items based on:

- ✧ Rasch analysis
- ✧ Discussion with research and HI team
- ✧ Qualitative comments from interviewers
- ✧ Presence of bias

✧ Transformation of the response scale to 4 response categories

Never	Not often/ a little	Often/ a lot	Always
			
1	2	3	4

Conclusion

✧ 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



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I0004 Descriptor for Item 4 Locn = 0.022 Spread = 0.281 FitRes = 0.413 ChiSq[Pr] = 0.019 F[Pr] = 0.065

