PROM in The Swedish National Cataract Register

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History

The National Swedish Cataract Register (NCR) started in January 1992

Only preoperative and surgical data were reported in the first years

The idea of collecting clinical follow up data and patient-reported outcome measures (PROM) existed from the very beginning

No suitable PROM instrument existed

Item construction started by searching literature and interviewing patients waiting for cataract surgery


First generation instrument – Catquest – was created in 1994

Catquest was in use in NCR 1995-2006

Clinics were invited to participate during one month, the month of March.

Preoperative questionnaire before surgery and 6 months after surgery.

Lessons learned about patient-reported outcomes
- For the elderly
- For second-eye surgery
- For patients with age-related macular degeneration
- Risk factors for patient-reported poor outcome
- Strategy to reduce patient-reported poor outcome

Described in 6 publications and numerous abstracts
After 10 years in use, we felt that the Catquest needed to be modernized

I met Konrad Pesudovs in San Diego 2007 and learned about Rasch analysis

Revision was performed in 2007 through cooperation with Konrad

New Rasch analyzed Catquest-9SF was tested in four clinics in 2008
Why Rasch?

Psychometric properties

- Response categories
- Dimensionality
- Measurement precision
- Item fit statistics
- Differential item functioning
- Targeting
- Raw score transformed to Rasch score

Georg Rasch (1901-1980)
Catquest-9SF
Use of Catquest-9SF

In the registry from 2009 and ongoing
Clinics are invited, participation optional
On average 40 clinics and 5000 questionnaires annually

Publications


International Catquest-9SF

**English (AUS):**


**German (DE + AT):**


**Italian:**


**Dutch:**


**Mandarin:**


**Also available in Slovakian and Spanish (validation is ongoing).**
Using Catquest-9SF – Findings 1

Relationship between clinical data and patient-reported outcome

Several clinical factors were related to patients’ self-assessed benefit of cataract surgery: *Age, preoperative and postoperative visual acuity, ocular co-morbidity, first-or second-eye surgery, gender and achieved postoperative refraction.*

Relationship between clinical data and poor patient-reported outcome

*No perceived problems before surgery, refractive problems after surgery, surgical complications and ocular co-morbidity were related to a poor patient-reported outcome.*
Using Catquest-9SF – Findings 2

Clinical outcomes and patient-reported outcomes disagree
  ◦ More specifically clinical outcome good but patient-reported outcome poor.

Reasons:

*More problems with near vision after surgery – need of spectacles for near and intermediate vision*
Using Catquest-9SF – Findings 3

For single clinics:

Different clinical data were related to a poor patient-reported outcome for different clinics

Examples: Poor refractive outcome, surgical complications, a large amount of patients with few or no problems before surgery

For some clinics this information is used to

- Improve quality
- Adjust indications for surgery
Future?

Increase usability of the instrument
  ◦ Define MID (Minimum Clinically Important Difference)

Improve psychometric properties (include more difficult items – Catquest-9SF v.2)

Thank you