

Exploring Stakeholder Perspectives on Presentation of Patient-Reported Outcomes for Individual-Level Decision-Making in Clinical Practice: A Qualitative Study



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What are PROMs?

Patient-Reported Outcome Measures are tools that collect patients' self-reported health-related quality of life to evaluate the effectiveness of treatments



Benefits of PROMs

Help clinicians understand patient well-being, guide treatment, and improve care



Presentation of PROMs
via dashboards, using
visuals to display outcomes
for interpretation



New evidence on PROMs

Enhance patient-clinician
communication and support
shared decision-making

Challenge

Effective use in clinical practice requires user-friendly interpretation



Existing Studies

Explored various presentation strategies, but no optimal format found



Knowledge Gap

Limited evidence on dashboard designers' presentation choices

Why this research?



To explore the current practices used in dashboard design to present PROMs to patients and clinicians

Study Methodology

Approach

Qualitative interviews with designers involved in dashboard development process

Data

Reviewed **9** dashboards used in clinical practice & Interviewed **12** designers

Focus

Dashboards used by clinicians or patients for individual-level decision-making

Dashboard Summary

Clinical domain	Oncology: 6 Multiple domains: 3
Target users	Patients: 2 Clinicians: 1 Both: 6
Designer roles	Data scientists: 4 Quality advisors: 2 Project leaders: 4 Project coordinator: 2

Results

Qualitative Themes

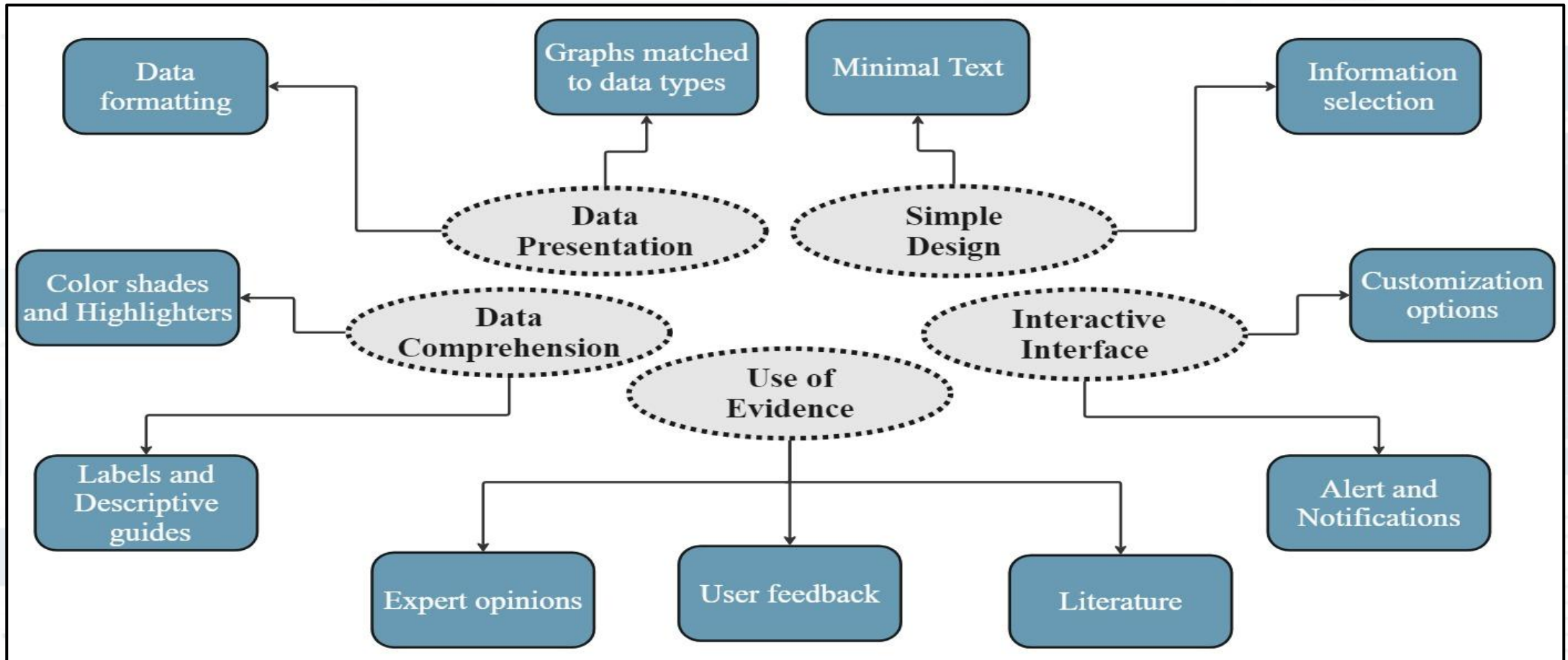
Theme 1

Theme 2

Theme 3

Theme 4

Theme 5



Results

Qualitative Themes

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Data Presentation

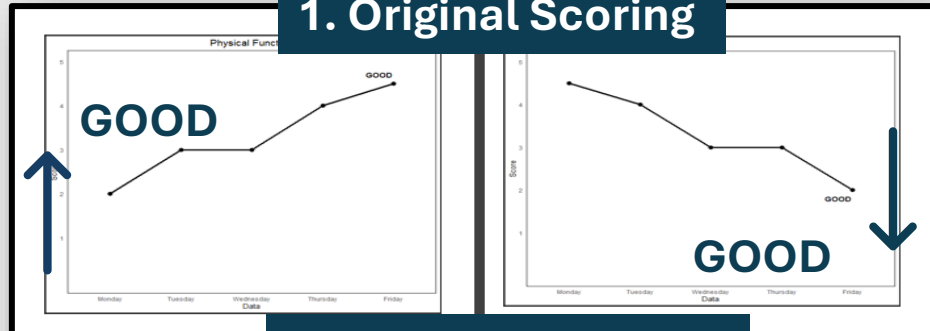
Graphs matched to data type

- *Bar charts* for single moment data
- *Line charts* for longitudinal data
- *Radar chart* to show improvements for multiple dimensions in one graph

Data formatting

- Consistent scoring directionality

1. Original Scoring



2. Reversed Scoring



Results

Qualitative Themes

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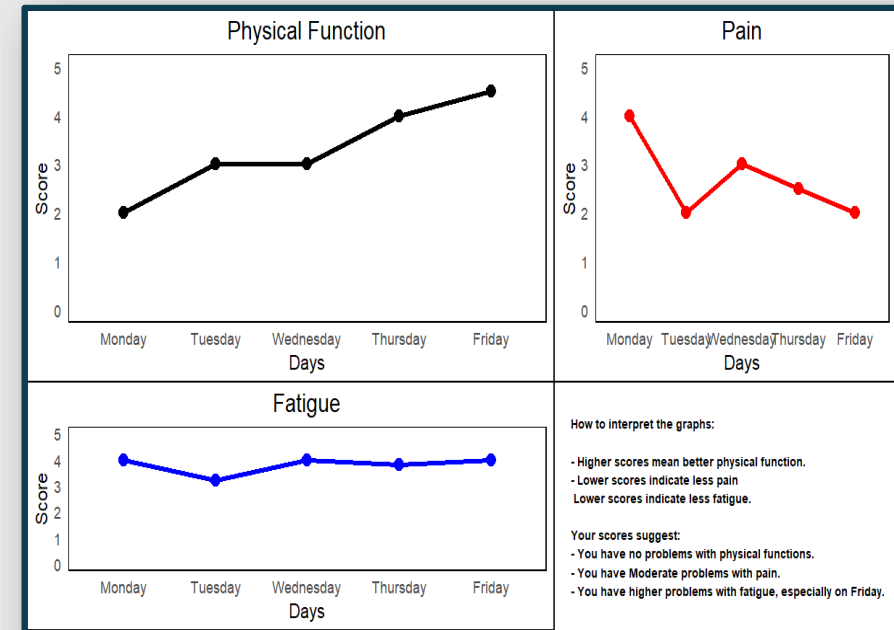
Simple Design

Minimal Text

- Presented data primarily through graphs
- Minimal use of text

Information Selection

- Excluded some outcome data; made some optional
- Avoided statistical measures



Results

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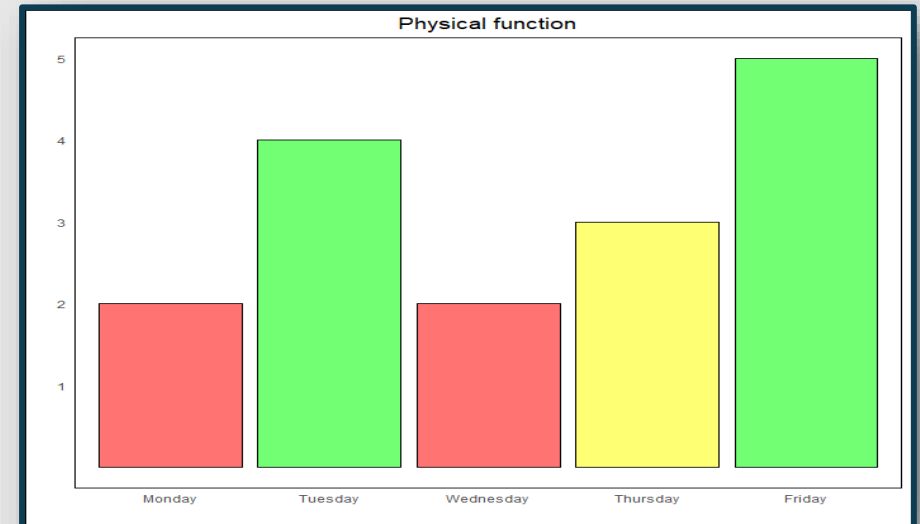
Data Comprehension

Colors and Highlighters

- Used colors (eg; traffic light shades)
- Used symbols (eg; arrows, smileys)

Labels and Descriptive Guides

- Used labels (eg; good, bad)
- Included brief explanations for interpretation



Results

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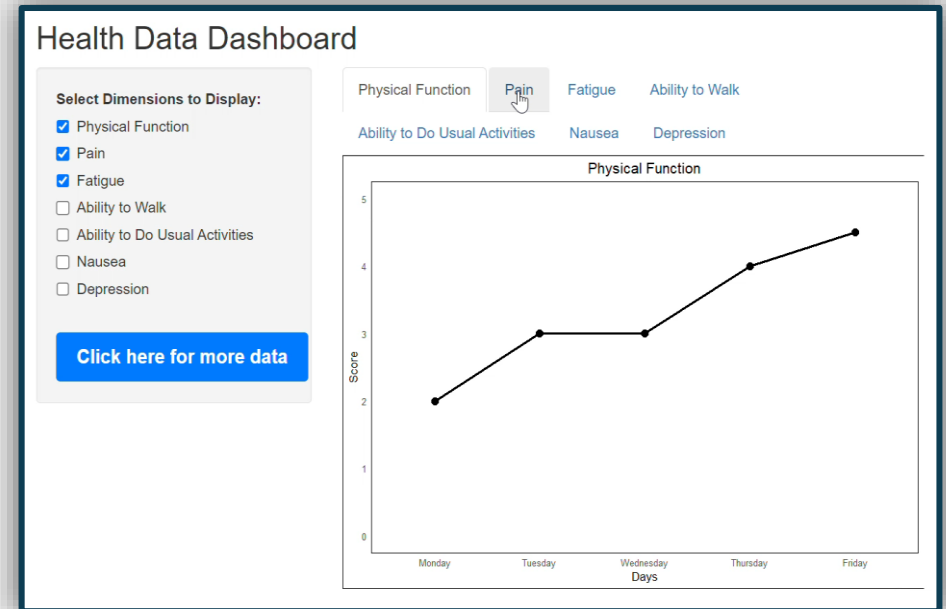
Interactive Interface

Customization Options

- Allows users to select data to view
- Allows users to select time period

Alerts and Notifications

- Text suggestions to contact clinicians
- Notifies clinicians of concerning scores



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Use of evidence

“Out of 20 patients we interviewed, the majority preferred this format”

User Feedback

“It depends on what the data specialists think is best, based on their knowledge and experience”

Expert Opinions

“We looked at previous research to see what has already been done”

Literature

Generalizability



Only nine
dashboards reviewed;
Small sample size

Perspectives



Not more than two
designers per dashboard;
Limited inputs

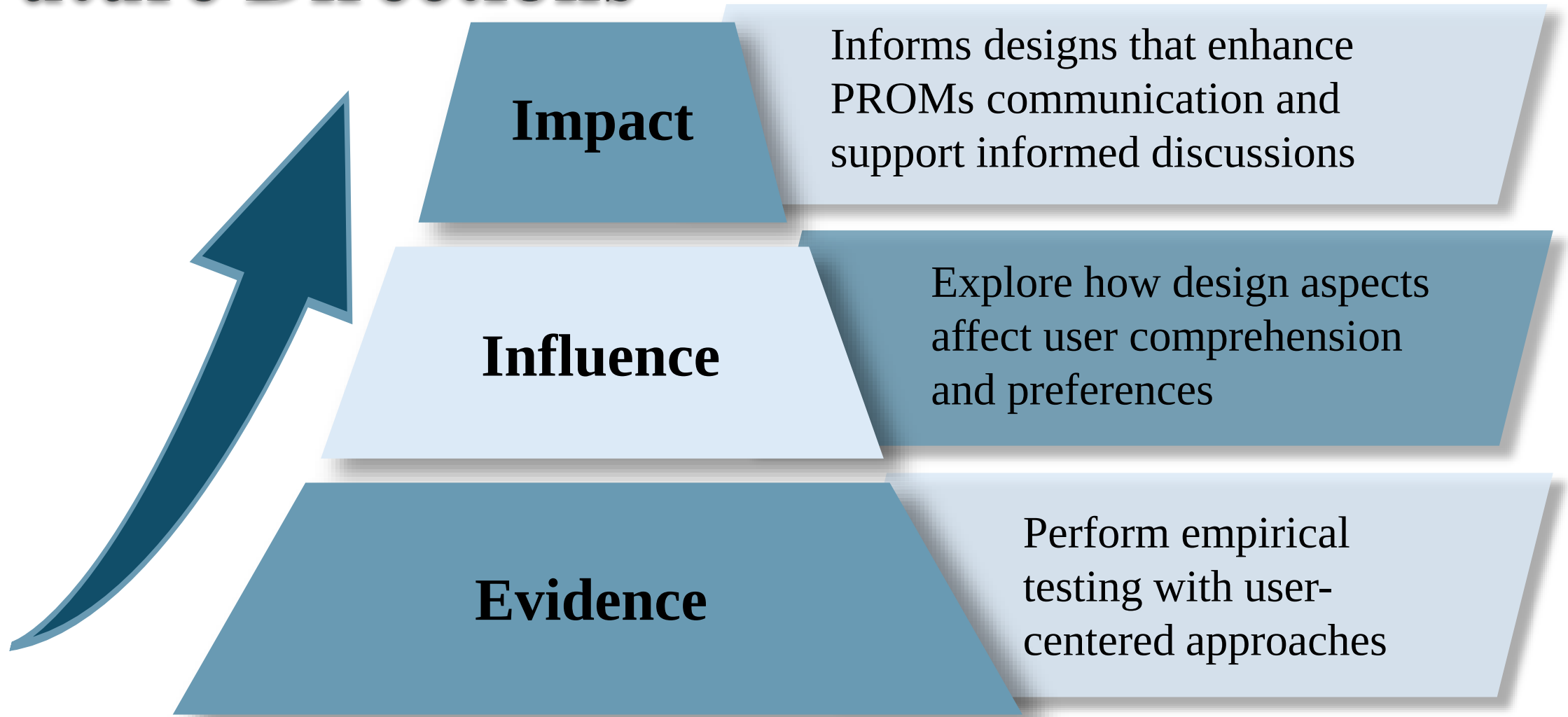
Advancements



Findings lack any
recent design updates;
Iterative process

Study Limitations

Future Directions





EUROQOL

TECHMED CENTRE



ikNL integraal
kankercentrum
Nederland



THANK YOU!

Do you have any questions?



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