PATH – Patient Assessment of Transitions in Healthcare settings

User guide

Purpose

The Patient Assessment of Transitions in Healthcare settings (PATH) is an 18-item self-report questionnaire measuring patients' experience of quality in healthcare transitions. PATH can be used to measure patients' experiences of transitions in healthcare settings during a specified time-period. We do not yet know whether PATH can measure change over time. This has not been tested but will be evaluated in a future study.

General information

PATH was developed from 2021-2024 in 4 phases:

- Identification of themes important for patients in their assessment of quality of healthcare in transitions, and relevant items from existing questionnaires[1,2].
- Conceptualisation, generation of items, and pilot-testing[3].
- Field testing including item reduction and factor analyses[3].
- Fitting to a rating scale model (Rasch analysis)[4].

PATH contains questions in the domains of:

- Access and coordination
- Kindness in care

Terms and conditions

PATH can be used free of charge for clinical quality assurance and scientific purposes if I) it is used according to the specifications in the original article and the manual, and II) it is not modified. Please cite Walloe et *Development and Psychometric Properties of the "Patient Assessment of Transitions in Healthcare settings" (PATH) questionnaire* 2024. https://doi.org/10.21203/rs.3.rs-3982192/v1.

Target population

PATH is targeted adult patients who have received healthcare services in several settings (for example hospital/municipality, municipality/GP, or GP/primary care). PATH takes approximately 10-45 minutes to fill out depending on the number of healthcare providers and/or settings involved in the patients' care.

Structure

PATH is structured in 2 sections:

Section 1

Section 1 consists of 3 items and may be adapted according to users' settings and/or purpose for use of PATH. Patients' responses to which healthcare providers are involved in their care determine which items they are presented with in section 2 for the domain "kindness in care". During PATH development, patients

have been asked to assess their course of care during the last three months. However, this defined period may be modified according to the context where PATH is applied.

Section 2

Section 2 consists of 14 items measuring patient-experience of quality in healthcare transitions. The scale has two sub-scales measuring an "access and coordination" domain and a "kindness in care" domain and a single informational continuity item scored on its own. The "access and coordination" domain is scored once, while the "kindness in care" domain is scored for each healthcare provider chosen in section 1. Likewise, the single item, "informational continuity", is scored for each involved healthcare provider.

Application

Access and coordination

The access and coordination domain consists of 6 questions and measures the overall system flexibility and responsiveness to patient needs. Patients answer each question once, and a raw subscale sum score between 0 and 12 is calculated. The answer category scores are: "Not at all" = 0, "To a little extent" = 0, "To some extent = 1, "To a large extent" = 2, "To a very large extent" = 3. See table 1.

Table 1 – Items and response categories for PATH domain "access and coordination"

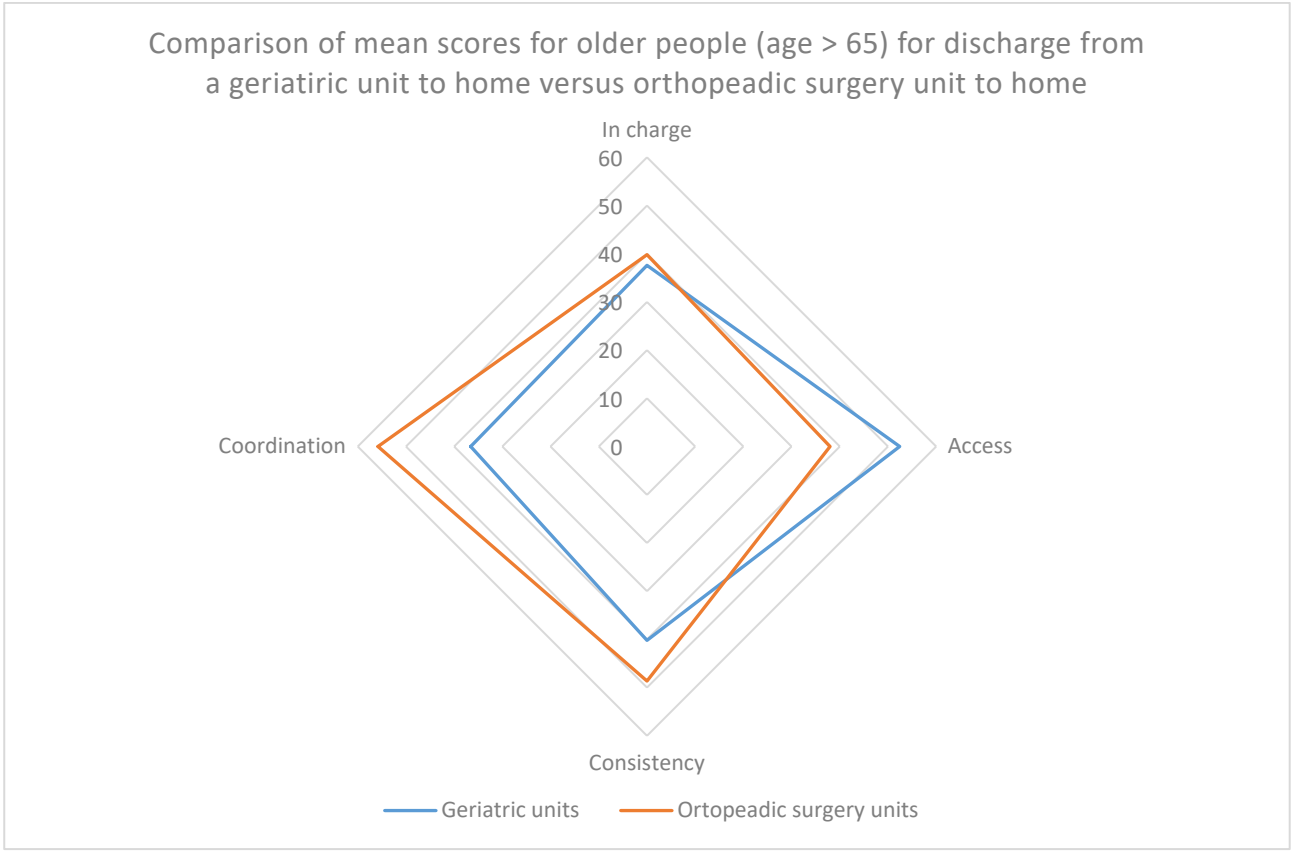
Question	Not at all	To a lesser extent	To some extent	To a large extent	To a very large extent
Do you have a regular healthcare professional who knows what is going on with you?	0	0	1	2	3
Have you had access to help when you have needed it?	0	0	1	2	3
Has the information you have received from the health professionals been consistent?	0	0	1	2	3
Have the efforts regarding your health been well coordinated?	0	0	1	2	3

We recommend visualising the subscale access and coordination in a radar plot. For the radar plot, mean scores for each question should be used. See Table 2 and Figure 1 for example.

Table 2. Example of mean scores for the domain "access and coordination" item number 1-6.

Hospital	"In charge"	"Access"	"Consistency"	Coordination"
Geriatric units	37.59	52.43	40.2	36.57
Orthopaedic surgery units	39.8	37.98	48.64	55.8

Figure 1. Example of radar plot for the "access and coordination" subscale.



Kindness in Care

The "kindness in care" domain measures the overall kindness and compassion that patients experience in their encounter with healthcare services. Patients answer 6 questions for each healthcare provider or setting that has been involved in their care i.e. hospital, GP, municipal care (MC) etc. Patients' responses are scored separately for each healthcare setting, yielding one raw subscale sum score per setting between 0 and 18. The answer category scores are: "Not at all" = 0, "To a little extent" = 0, "To some extent = 1, "To a large extent" = 2, "To a very large extent" = 3. See Table 3.

Table 3. Items and response categories for PATH domain "kindness in care"

Question	Not at all	To a lesser extent	To some extent	To a large extent	To a very large extent
Have you been involved in the decisions about your health to the extent that you wanted?	0	0	1	2	3
Have you been involved in the scheduling of your treatment?	0	0	1	2	3
Have you been asked about how your health has affected your life?	0	0	1	2	3
Have you been treated in a compassionate way by the health professionals?	0	0	1	2	3
When you have had appointments with health professionals, did you	0	0	1	2	3

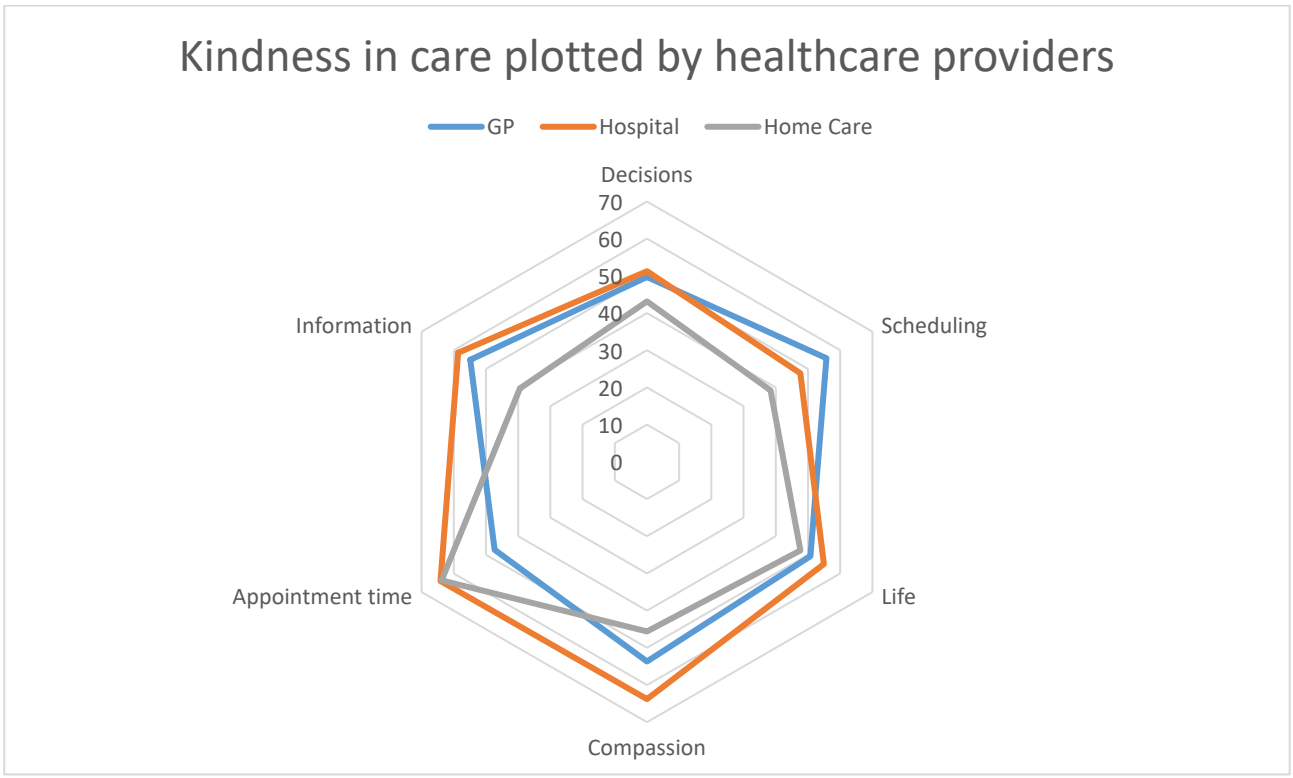
feel that you were given enough time?					
Have you received all the information you have needed?	0	0	1	2	3

We recommend visualising results of the "kindness in care" sub scale in a radar plot, plotted by each healthcare setting. For the radar plot, mean scores for each question are used. See Table 4 and Figure 2.

Table 4. Example of mean scores for the domain "kindness in care".

Setting/Item	"Decisions"	"Scheduling"	"Life"	"Compassion"	"Appointment time"	"Information"
GP	49.7	55.73	50.75	53.68	47.29	54.87
Hospital	51.26	47.63	54.94	63.8	64.12	58.65
Home Care	43.15	38.4	47.65	45.61	63.78	39.45

Figure 2. Example of radar plot for the "kindness in care" subscale.



Excel sheets to support the production of radar plots may be downloaded from the official website: https://www.spoergeskemaer.dk/path

Single items

There are 4 items in the PATH questionnaire which are scored separately (Table 5). Each item yields 1 raw score between 0 and 3 for each healthcare provider or setting that has been involved in their care i.e.

hospital, GP, municipal care (MC) etc. The raw score for these items **cannot** be added for a sum score. For analysis, use the raw median score. See raw and final score in Table 6.

Table 5. Single items and response categories in the PATH questionnaire

Question	Not at all	To a lesser extent	To some extent	To a large extent	To a very large extent
Have you felt comfortable telling the healthcare professionals personal things about yourself?	0	0	1	2	3
Have you had confidence in the professional competence of the health professionals?	0	0	1	2	3
Did the health professionals know your story?	0	0	1	2	3
Have your relatives been involved to the extent you have wanted?	0	0	1	2	3

Calculation of aggregate scores

PATH has one subscale sum score for the domain "access and coordination" (4 items) and one for "kindness in care" (6 items) for each healthcare provider. An overall sum score for the full scale is **not** recommended. Proportional recalculation[5] is used to make subscale sum scores ranging from 0 – 100.

Table 6. Raw and final score range of PATH subscales.

Subscale	Number of items	Raw total score range	Final sum score range
Access and coordination	4	0-12	0-100
Kindness in care	6	0-18	0-100
Informational continuity	1	0-3	0-3
Involvement of relatives	1	0-3	0-3
Trusting relationships	1	0-3	0-3
Confidence in health professionals	1	0-3	0-3

Calculating the subscale sum score follows the formula:

$$\frac{Total\ subscale\ score}{3 \times number\ of\ items\ answered} \times 100$$

- A sum score for the "access and coordination domain" can only be calculated if ≤ 1 item is missing. If more than 1 item is missing, the subscale sum score is missing.
- A sum score for the "kindness in care" domain can only be calculated if ≤2 items are missing. If more than 2 items are missing, a subscale sum score cannot be calculated.

Clinical interpretation of PATH scores

We are currently exploring how to interpret PATH scores. This will be added when the study is completed.

Languages

PATH is developed in Danish and tested in a Danish context. We expect PATH to be valid and reliable in other countries, but further research is needed. For publication, PATH has been translated into English through a systematic translation and back-translation process[6].

Distribution

We advise distributing PATH electronically, however the questionnaire has also been tested in paper version. This may especially be relevant for use of PATH in an older population. REDCap zip files of PATH in Danish and English may be downloaded from the website: https://www.spoergeskemaer.dk/path

Questions about PATH

Questions about PATH can be directed to Lars Morsø at lars.morsoe@rsyd.dk or via the website: https://www.spoergeskemaer.dk/kontakt/

Literature

1. Walløe S, Beck M, Lauridsen HH, et al. Quality in care requires kindness and flexibility – a hermeneutic-phenomenological study of patients' experiences from pathways including transitions across healthcare settings. *BMC Health Serv Res* 2024; 24: 117.

2. Walløe S, Roikjær SG, Hansen SM-B, et al. Content validity of patient-reported measures evaluating experiences of the quality of transitions in healthcare settings—a scoping review. *BMC Health Serv Res* 2024; 24: 828.

3. Walløe S, Lauridsen HH, Petersen EN, et al. Development and psychometric properties of the "Patient Assessment of Transitions in Healthcare settings (PATH)" questionnaire. Epub ahead of print 12 March 2024. DOI: 10.21203/rs.3.rs-3982192/v1.

4. Walløe S, Morsø L, Petersen E, et al. Measurement Properties of the Patient Assessment of Transitions in Healthcare Settings (PATH) Questionnaire. *Meas Interdiscip Res Perspect*; 0: 1–16.

5. Kent P, Lauridsen HH. Managing missing scores on the Roland Morris Disability Questionnaire. *Spine* 2011; 36: 1878–1884.

6. Beaton DE, Bombardier C, Guillemin F, et al. Guidelines for the Process of Cross-Cultural Adaption of Self-Report Measures. *ResearchGate* 2001; 25: 3186–91.