Hennessy-Hicks Training Needs Analysis Questionnaire

Pragmatic Testing and Content Validity Data

Summary of Pragmatic properties

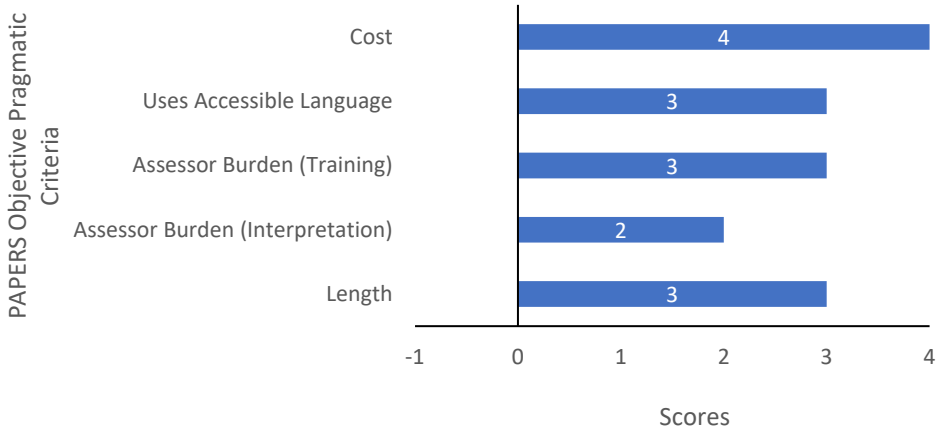
The Hennessy-Hicks Training Needs Analysis Questionnaire had an overall **objective pragmatic score** of **15** out of **20**. According to this objective pragmatic assessment, the Hennessy-Hicks Training Needs Analysis Questionnaire's strengths include being available in the public domain, having acceptable language, and not requiring training for administration.

Based on two RNAO stakeholders, the Hennessy-Hicks Training Needs Analysis Questionnaire was rated **3** out of **4** for **likelihood to use**. The Training Needs Analysis Questionnaire has an overall **stakeholder facing assessments** score of **21** out of **24**.

Tool Pragmatic Properties

Tools were assessed for pragmatic properties with the PAPERS tool (Stanick et al. 2019); a validated tool for measuring a tool's acceptability, ease of use, appropriateness, and usefulness. Objective pragmatic properties were assessed by two research assistants independently and with consensus for each tool. Stakeholder facing pragmatic properties were assessed independently by at least two stakeholders (e.g., champions) for each tool. A mean score was calculated from participants' responses for each of the stakeholder facing PAPERS survey questions.

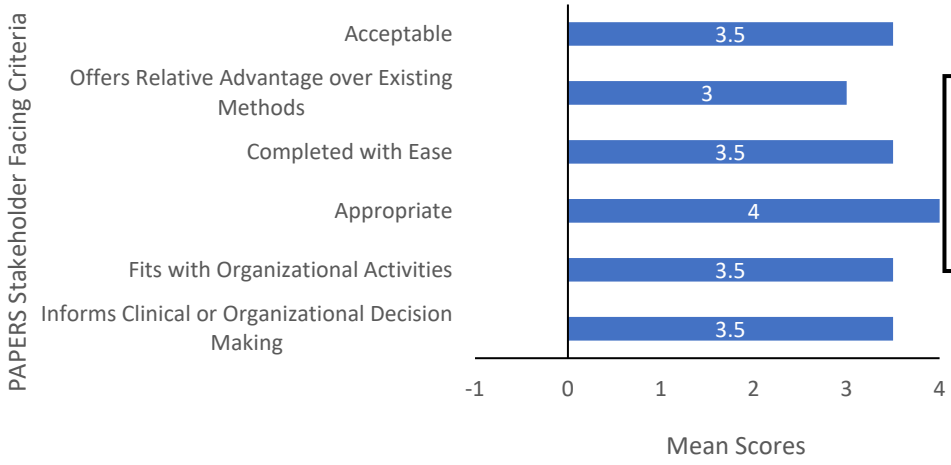
PAPERS Objective Pragmatic Criteria - Scoring details below



Overall PAPERS Objective Pragmatic Score:

15 (out of 20)

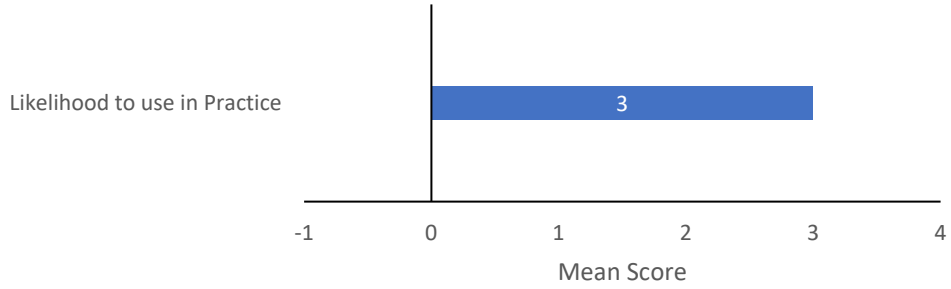
PAPERS Stakeholder Facing Criteria (n = 2 stakeholders) - Scoring details below



Overall PAPERS Stakeholder Facing Criteria Score:

21 (out of 24)

Likelihood to Use the Tool in Practice (n = 2 stakeholders) - Scoring details below



Content Validity

Summary of Content Validity

According to our assessment using an adapted version of a checklist by Mokkink et al. (2010), the Training Needs Analysis Questionnaire has evidence of content validity.

Content validity refers to degree to which the content of the tool is an adequate reflection of the construct being measured. In the case of the Training Needs Analysis Questionnaire, this refers to the extent that individuals can use the Training Needs Analysis Questionnaire to assess barriers/facilitators to knowledge use, monitor knowledge use by assessing the following three sections:

- Participant demographics
- Perceived importance and ability of staff to conduct the following on job activities:
  - Research/audit
  - Communication/teamwork
  - Clinical tasks
  - Administration
  - Management/supervisory task
- Training reported to be needed by staff

General Requirements	Yes	No
1. Was there an assessment of whether all items refer aspects of the construct to be measured?	X	
2. Was there an assessment of whether all items are relevant for the study population? (e.g., age, gender, disease characteristics, country, setting)	X	
3. Was there an assessment of whether all items are relevant for the purpose of the measurement instrument? (discriminative, evaluative, and/or predictive)		X
4. Was there an assessment of whether all items together comprehensively reflect the construct to be measured?	X	

Adapted from: Mokkink, L.B., Terwee, C.B., Knol, D.L., Stratford, P.W., Alonso, J., Patrick, D.L., Bouter, L.M. and De Vet, H.C. (2010). The COSMIN checklist for evaluating the methodological quality of studies on measurement properties: a clarification of its content. *BMC medical research methodology*, *10*(1), 1-8.

According to our assessment using an adapted version of a checklist by Mokkink et al. (2010), the Training Needs Analysis Questionnaire has evidence of content validity.

Content Validity Requirement 1:

- The Training Needs Analysis Questionnaire was based on a literature review and semi-structured interviews with 24 health care providers working in primary health care teams.
- The tool developers conducted a pilot trial with a sample of 43 health care providers to evaluate the Training Needs Analysis Questionnaire's face validity, usability, ease of completion, and feasibility of administration. The tool developers stated that the tool has acceptable face validity according to the pilot trial; minor recommendations were implemented.

Content Validity Requirement 2:

- The Training Needs Analysis Questionnaire's development was informed by semi-structure interviews with a sample of 24 health care providers working in primary health care teams (e.g., four teams of primary healthcare professions such as general practitioners, nurses, physiotherapists, etc.).
- The tool developers were piloted the Training Needs Analysis Questionnaire with 43 participants working in primary health care teams (eight physicians, ten district nurses, ten practice nurses, eight health visitors and seven physiotherapists).

Content Validity Requirement 3:

- The tool developers evaluated the face validity of the Training Needs Analysis Questionnaire through semi-structured interviews and pilot testing with health care providers. However, the tool developers did not provide details on how all the items were relevant in measuring health care providers' training requirements.

Content Validity Requirement 4:

- A literature review and the experiences of health care providers informed the development of the Training Needs Analysis Questionnaire.

Limitations:

- The tool developers did not provide enough details on how the semi-structured interviews were conducted (i.e., what questions were asked to the providers to inform questionnaire development).

References

Hicks, C., Hennessy, D., & Barwell, F. (1996). Development of a psychometrically valid training needs analysis instrument for use with primary health care teams. *Health Services Management Research*, *9*(4), 262-272.

Mokkink, L.B., Terwee, C.B., Knol, D.L., Stratford, P.W., Alonso, J., Patrick, D.L., Bouter, L.M. and De Vet, H.C. (2010). The COSMIN checklist for evaluating the methodological quality of studies on measurement properties: a clarification of its content. *BMC medical research methodology*, *10*(1), 1-8.

Stanick, C. F., Halko, H. M., Nolen, E. A., Powell, B. J., Dorsey, C. N., Mettert, K. D., Weiner, B. J., Barwick, M., Wolfenden, L., Damschroder, L. J., & Lewis, C. C. (2019, Nov 20). Pragmatic measures for implementation research: development of the Psychometric and Pragmatic Evidence Rating Scale (PAPERS). *Translational Behavioral Medicine*. https://doi.org/10.1093/tbm/ibz164