

LEADING CHANGE TOOLKIT™

TO HELP CHANGE AGENTS AND
CHANGE TEAMS MAKE LASTING
IMPROVEMENTS IN HEALTH CARE

Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors

Pragmatic Testing and Content Validity Data

Summary of Pragmatic properties

The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool had an overall **objective pragmatic score** of **15** out of **20**. According to this objective pragmatic assessment, the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors strengths include being available in the public domain, having acceptable language, and not requiring training for administration. The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool lost scores because interpretation of the total score is not clearly outlined.

Based on two RNAO stakeholders, the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was rated **2** out of **4** for **likelihood to use**. The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool has an overall **stakeholder facing assessments** score of **14.5** out of **24**.

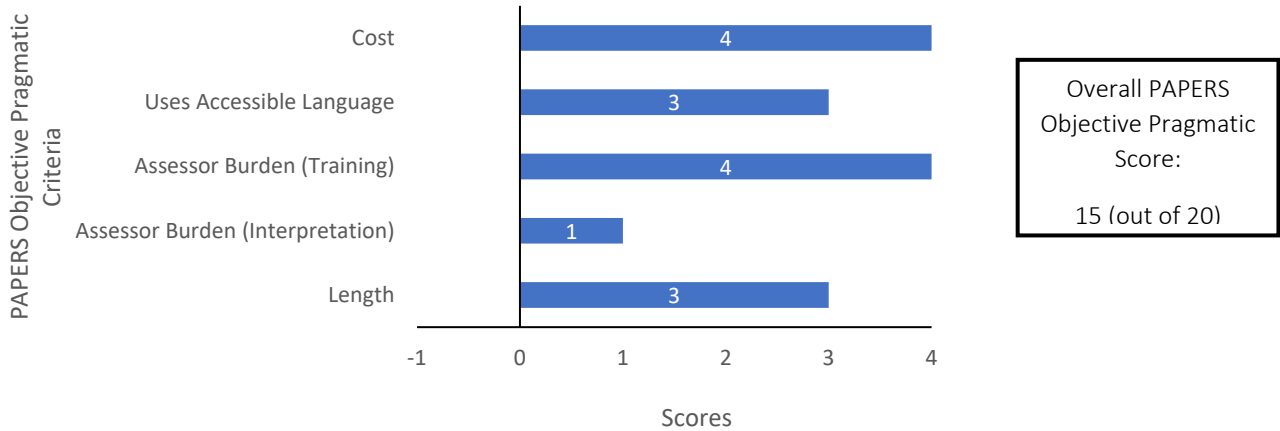
Tool Pragmatic Properties

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.

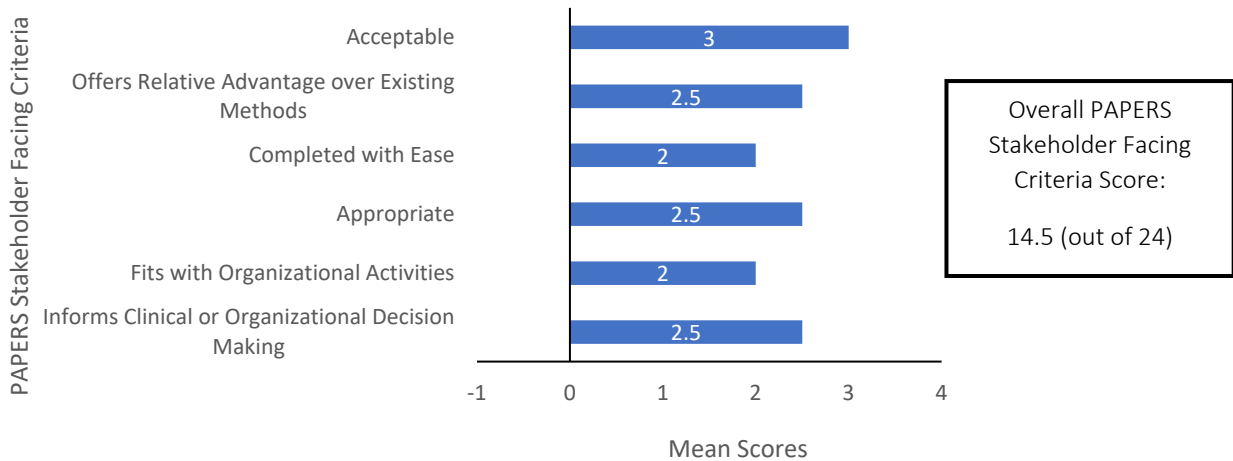
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PAPERS Objective Pragmatic Criteria - Scoring details below



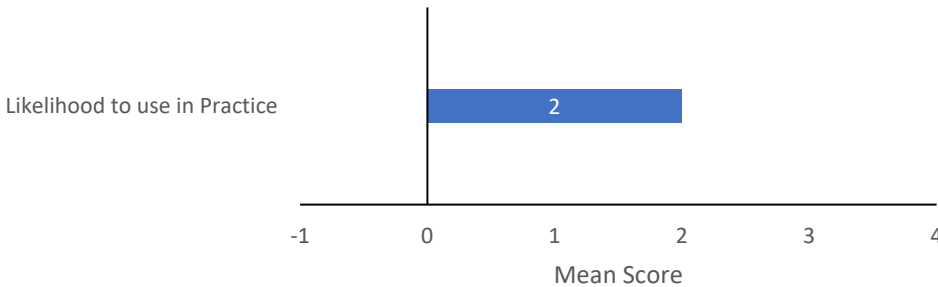
PAPERs Stakeholder Facing Criteria (n = 2 stakeholders) - Scoring details below



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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 Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool 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 Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool, this refers to the extent that individuals can use the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool to assess barriers/facilitators to knowledge use and monitor knowledge use according to the following sections:

- Personal attitudes toward, use of, and perceived benefits and limitations of evidence-based practice
- Personal use and understanding of clinical practice guidelines
- Availability of resources
- Demographics

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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 Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool has evidence of content validity.

Content Validity Requirement 1:

- The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was developed according to a previously developed tool that was intended to measure general practitioner physicians' attitude, knowledge and behaviours regarding evidence based practice (McColl et al., 1998). The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was further evaluated for content validity by 10 experienced physical therapists. The tool developers used the feedback from these experienced physical therapists to modify initial drafts of the tool (Jette et al., 2003).

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Content Validity Requirement 2:

- The Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was evaluated for content validity by 10 experienced physical therapists (intended users of the tool). These physical therapists worked in a variety of specialties: pediatrics ($n = 1$), acute care ($n = 4$), orthopedics ($n = 2$), and rehabilitation ($n = 3$) (Jette et al., 2003).

Content Validity Requirement 3:

- There is inadequate information reported by the tool developers pertaining to how the physical therapists evaluated the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool and explicitly how the tool was adapted according to the feedback (Jette et al., 2003).

Content Validity Requirement 4:

- Although the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was based on an existing tool, there was no assessment in regards to the comprehensiveness of the tool (Jette et al., 2003).

Limitations:

- The tool developers explicitly stated that there is a lack of information pertaining to the validity of the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool (Jette et al., 2003).
- Another limitation is that the development of the Evidence-Based Practice: Beliefs, Attitudes, Knowledge, and Behaviors tool was based on the elements of another survey intended to be used with general practitioner physicians (McColl et al., 1998). The tool developers stated that it is possible that perceptions and use of evidence based practice might be significantly different between general practitioner physicians and physical therapists, making the adaptation less ideal (Jette et al., 2003).

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References

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- McColl, A., Smith, H., White, P., & Field, J. (1998). General practitioners' perceptions of the route to evidence based medicine: a questionnaire survey. *Bmj, 316*(7128), 361-365.
- 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>