

LEADING CHANGE TOOLKIT™

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

Evidence Based Practice Inventory

Pragmatic Testing and Content Validity Data

Summary of Pragmatic properties

The Evidence Based Practice Inventory had an overall **objective pragmatic score** of **16** out of **20**. According to this objective pragmatic assessment, the Evidence Based Practice Inventory's strengths include being available in the public domain, having acceptable language, not requiring training for administration, and having less than 50 items. The Evidence Based Practice Inventory lost scores because interpretation of the total score is not clearly outlined.

Based on two RNAO stakeholders, the Evidence Based Practice Inventory was rated **2.7** out of **4** for **likelihood to use**. The Evidence Based Practice Inventory has an overall **stakeholder facing assessments** score of **17.9** out of **24**.

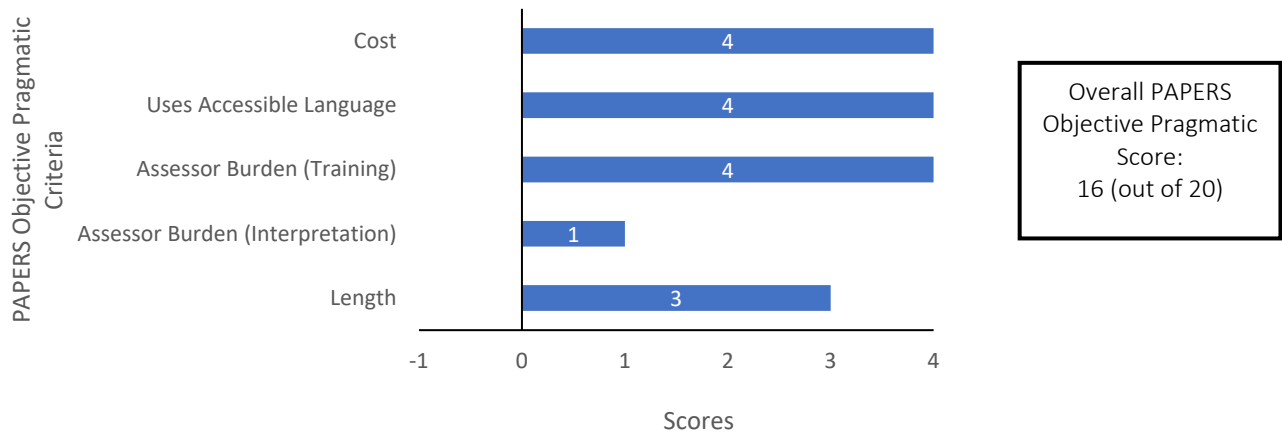
Tool Pragmatic Properties

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.

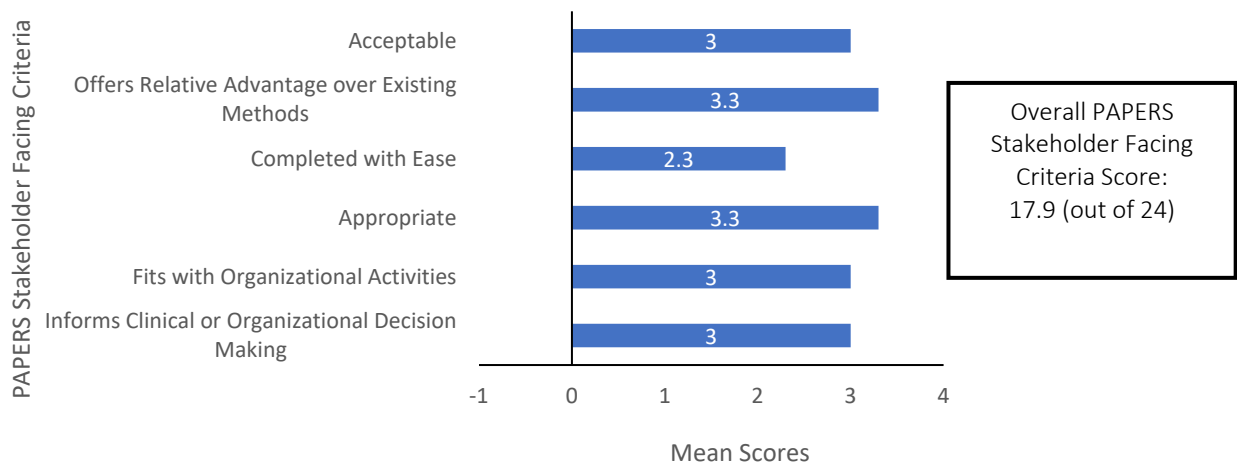
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PAPERS Objective Pragmatic Criteria - Scoring details below



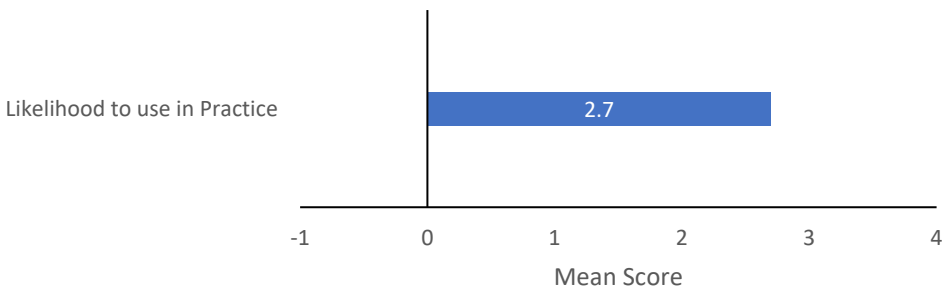
PAPERS Stakeholder Facing Criteria (n = 3 stakeholders) - Scoring details below



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Likelihood to Use the Tool in Practice (n = 3 stakeholders) - Scoring details below



Content Validity

Summary of Content Validity

According to our assessment using an adapted version of checklist by Mokkink et al. (2010), the Evidence Based Practice Inventory 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 Inventory, this refers to the extent that individuals can use the Evidence Based Practice Inventory to assess barriers/facilitators to knowledge use and monitor knowledge use according to the following dimensions:

- Attitude
- Subjective Norm
- Perceived Behavioral Control
- Decision Making
- Intention and Behavior

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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 checklist by Mokkink et al. (2010), the Evidence Based Practice Inventory has evidence of content validity.

Content Validity Requirement 1:

- The following assessments were completed to assure that the items of the Evidence Based Practice Inventory pertain to barriers and facilitators to evidence-based practice (EBP):
 - Item construction was informed by existing scales in EBP, psychology, and behaviour economics.
 - Two authors of the tool development team synthesized seven dimensions related to barriers and facilitators to EBP, as informed by the literature and theories in EBP. The constructed items were mapped according to these seven dimensions. This mapping
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- verifies that each item coincides with the literature and theories about barriers and facilitators in EBP that informed the authors.
- A Delphi study of four rounds was conducted with a large (537 participants) international panel of EBP experts (e.g., clinicians, researchers, teachers, policy makers) to assess the relevance and importance of each item towards individuals' adherence to EBP.

Content Validity Requirement 2:

- The Evidence Based Practice Inventory was assessed by a total of 537 panel of EBP experts (e.g., clinicians, researchers, teachers, policy makers) over four rounds of Delphi studies. The purpose of the Delphi studies was to reduce the number items and refine the wording of the items.
- The resulting draft from the Delphi studies was piloted on 43 clinicians.

Content Validity Requirement 3:

- During the first Delphi study, participants were asked to select any number of items that they perceived as important barriers and facilitators for adherence to EBP and to rate the importance of these items on a 5-point Likert scale.
- On the second Delphi study participants were asked to select 15 items that they considered were important barriers and facilitators for identifying variability in conducting EBP and to rate each item's importance on a 5-point Likert scale.
- The two Delphi studies that are detailed above demonstrates how the authors assessed that each item evaluates the barriers and facilitators for adherence to EBP.

Content Validity Requirement 4:

- As detailed above, the tool developers constructed the Evidence Based Practice Inventory based on existing literature, theories, and questionnaires on the barriers and facilitators for adherence to EBP.

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- The authors solicited input from experts (e.g., clinicians, researchers, teachers, policy makers) to reduce the number of items, improve the wording of items, and to solicit additional items or dimensions pertinent to barriers and facilitators to EBP.

Limitations:

- We did not identify important limitations in the design or methods of the development study regarding content validity.

References

- Kaper, N. M., Swennen, M. H., van Wijk, A. J., Kalkman, C. J., van Rheenen, N., van der Graaf, Y., & van der Heijden, G. J. (2015). The “evidence-based practice inventory”: reliability and validity was demonstrated for a novel instrument to identify barriers and facilitators for Evidence Based Practice in health care. *Journal of clinical epidemiology*, *68*(11), 1261-1269.
- 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>