RNAO Healthcare Excellence Canada

LEADING CHANGE TOOLKIT™

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

Organizational Readiness to Change Assessment (ORCA)

Pragmatic Testing and Content Validity Data

Summary of Pragmatic properties

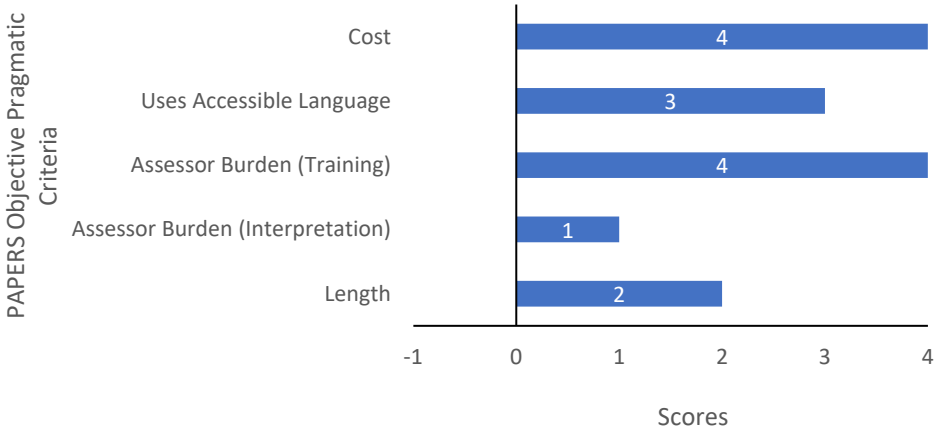
The ORCA tool had an overall **objective pragmatic score** of **14** out of **20**. According to this objective pragmatic assessment, the ORCA tool's strengths include being available in the public domain, having acceptable language, and not requiring training for administration. The ORCA lost scores because there are limited instructions for interpreting scores, and because it has more than 50 items.

Based on two RNAO stakeholders, the ORCA tool was rated **3** out of **4** for **likelihood to use**. The ORCA tool has an overall **stakeholder facing assessments** score of **17** 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.

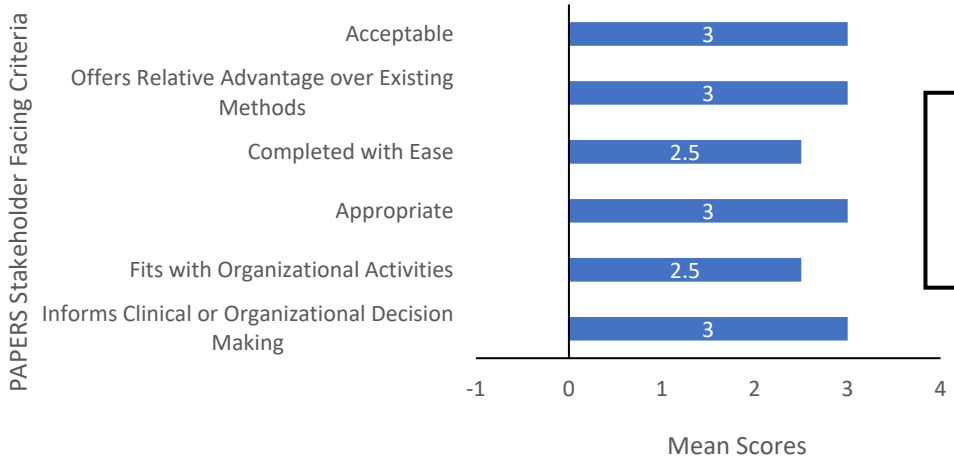
PAPERS Objective Pragmatic Criteria - Scoring details below



Overall PAPERS Objective Pragmatic Score:

14 (out of 20)

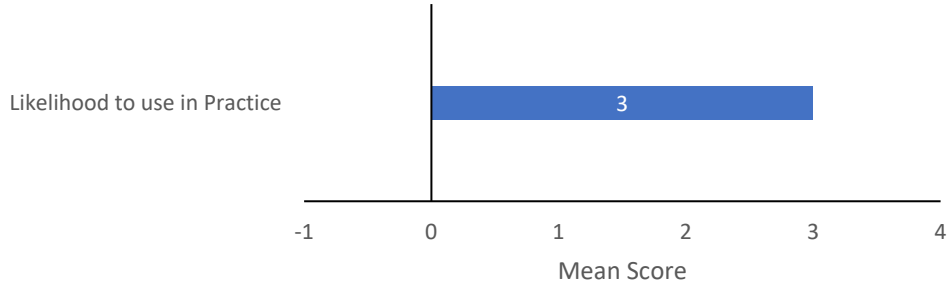
PAPERS Stakeholder Facing Criteria (n = 2 stakeholders) - Scoring details below



Overall PAPERS Stakeholder Facing Criteria Score:

17 (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 ORCA tool has evidence of content validity.

Content validity refers to the degree to which the content of the tool is an adequate reflection of the construct being measured. In the case of the Organizational Readiness to Change Assessment (ORCA) tool, this refers to the extent that individuals can use the ORCA tool to assess barriers/facilitators to knowledge use and monitor knowledge use according to the following scales:

- Evidence Scale
- Context Scale
- Facilitation Scale

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.

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Content Validity Requirement 1:

- The ORCA tool was developed according to an evaluation of a quality improvement study (Pineros et al., 2004) and the PARIHS framework (Kitson et al., 1998). The referred quality improvement study conducted interviews with staff at hospitals who were conducting different interventions to improve lipid monitoring and treatment. These interviews revealed many common factors that facilitated or inhibited implementation at the different sites (e.g., communication among services, physician prerogative in clinical care decision etc.) (Helfrich, 2009).

Content Validity Requirement 2:

- The ORCA was field tested in three quality improvement studies: 1) the Cardiac Care Initiative (n = 65 from 49 facilities); 2) the Lipids Clinical Reminders project (n = 12 from 1 facility); and 3) the intensive care unit project (n = 36 from 9 facilities) (Helfrich, 2009).

Content Validity Requirement 3:

- The tool developers created the ORCA tool items according to synthesized qualitative data from interviews with hospital staff (Helfrich, 2009). These interviews outlined factors affecting implementation and was organized according to the components of the PARISH framework (Kitson et al., 1998). The three subscales of the ORCA tool based on the PARISH framework are further divided into 19 subscales that are meant to evaluate the three core elements of the PARISH framework (evidence, context, and facilitation) (Helfrich, 2009).

Content Validity Requirement 4:

- A Delphi panel of 160 volunteers with differing expertise in implementation science evaluated the fit of each of the ORCA items into 15 conceptual domains that were created by a 9-member expert panel. This activity revealed that the ORCA inadequately measures four conceptual domains: 1) compatibility of evidence-based practice, 2) user's commitment to implementing evidence-based practice, 3) users' outcome expectancy; 4) adaptability of the evidence-based practice change to their local setting. The tool developers stated that these are areas that could be further developed in the future (Veterans Health Administration, 2013).

Limitations:

- The development study was limited by the small sample size (n = 80) of individuals with completed data for all the items. Further, the tool developers stated that concurrent validity testing is required for the ORCA tool, as the development paper did not assess the tool's relationship with actual use of evidence-based practice, or other confounding factors related to using evidence-based practice (Helfrich, 2009).

References

Helfrich, C. D., Li, Y. F., Sharp, N. D., & Sales, A. E. (2009). Organizational readiness to change assessment (ORCA): development of an instrument based on the Promoting Action on Research in Health Services (PARIHS) framework. *Implementation science*, *4*(1), 1-13.

Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence based practice: a conceptual framework. *BMJ Quality & Safety*, *7*(3), 149-158.

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