



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

# Barriers to Research Utilization Scale (BARRIERS)

The Assessing Competency in BARRIERS (BARRIERS) tool had an overall objective pragmatic score of 16 out of 20. According to this objective pragmatic assessment, the BARRIERS tool's strengths include being available in the public domain, having acceptable language, not requiring training for administration, and the overall length of the tool. The BARRIERS tool lost scores because the interpretation of the total score is not clearly outlined.

Based on two RNAO stakeholders, the BARRIERS tool was rated **1.5** out of **4** for likelihood to use. The BARRIERS tool has an overall stakeholder facing assessments score of **17.5** out of **24**.

### **Pragmatic Testing and Content Validity Data**

### Summary of Pragmatic properties

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### **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.

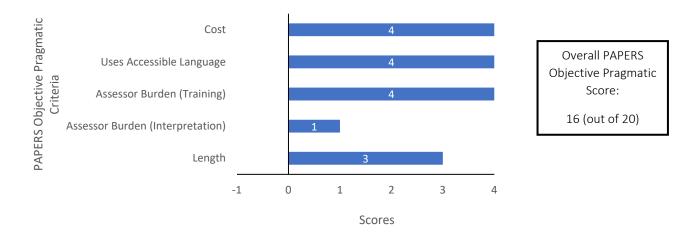




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# PAPERS Objective Pragmatic Criteria - Scoring details below

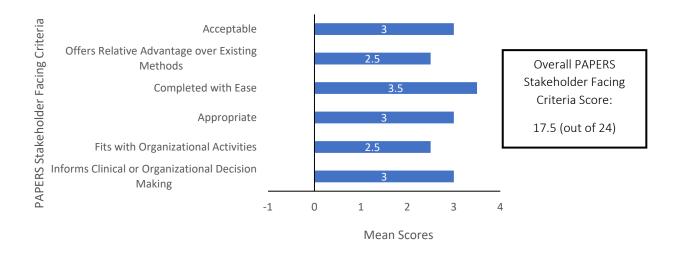




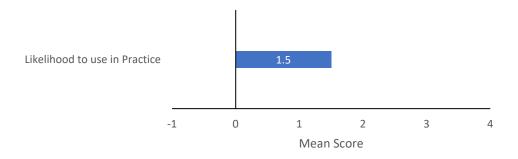


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# PAPERS Stakeholder Facing Criteria (n = 2 stakeholders) - Scoring details below.



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







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### **Content Validity**

#### Summary of Content Validity

According to our assessment using an adapted version of a checklist by Mokkink et al. (2010), the BARRIERS 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 BARRIERS, this refers to the extent that individuals can use the BARRIERS tool to assess barriers and facilitators and monitor knowledge according to:

• clinicians', administrators', and academicians' perceptions of barriers to the utilization of research findings in practice.

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

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 our assessment using an adapted version of a checklist by Mokkink et al. (2010), the BARRIERS tool has evidence of content validity:

Content Validity Requirement 1:

• The authors gathered expert input from research utilization consultants, nursing researchers, practicing nurses, and a psychometrician regarding the applicability of the items and the wording (Funk et al., 1991).

Content Validity Requirement 2:

• The authors obtained consensus on content validity from the expert panel and piloted the study with graduate nurses who were clinically employed (Funk et al., 1991).

#### **Content Validity Requirement 3:**

• There is no specific mention of discriminative, evaluative, or predictive assessments; however, participants were asked to rate the extent to which items were a perceived barrier (presumably, if not a barrier for all/most participants, it would be deemed irrelevant for the measurement instrument) (Funk et al., 1991).

### Content Validity Requirement 4:

• Comprehensiveness of content validity was assessed by asking respondents to specify and rate any additional barriers that they believe may have been missing from the tool (Funk et al., 1991).

Limitations:

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







#### References

- Crane, J., Pelz, D., Horsley, J.A. (1977). CURN project research utilization questionnaire. Ann Arbor, MI: Conduct and Utilization of Research in Nursing Project, School of Nursing, University of Michigan.
- Funk S.G, Champagne M.T., Wiese R.A, Tornquist E.M. (1991). BARRIERS: the barriers to research utilization scale. Applied Nursing Research, 4(1):39-45. https://doi.org/10.1016/S0897-1897(05)80052-7.
- 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