

LEADING CHANGE TOOLKIT™

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

Evidence-based Nursing Attitude Questionnaire (EBNAQ)

Pragmatic Testing and Content Validity Data

Tool Pragmatic Properties

Summary of Pragmatic properties

The EBNAQ tool had an overall **objective pragmatic score** of **17** out of **20**. According to this objective pragmatic assessment, the EBNAQ strengths include being available in the public domain, having acceptable language, having scoring instructions, does not requiring training for administration, and having less than 50 items.

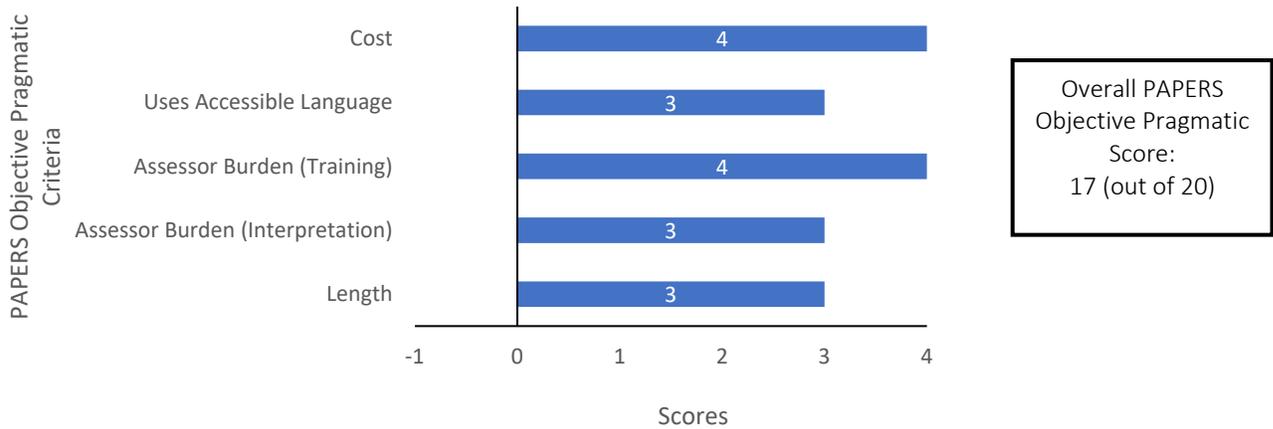
Based on two RNAO stakeholders, the EBNAQ tool was rated **1** out of **4** for **likelihood to use**. The EBNAQ tool has an overall **stakeholder facing assessments** score of **20** out of **24**.

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.

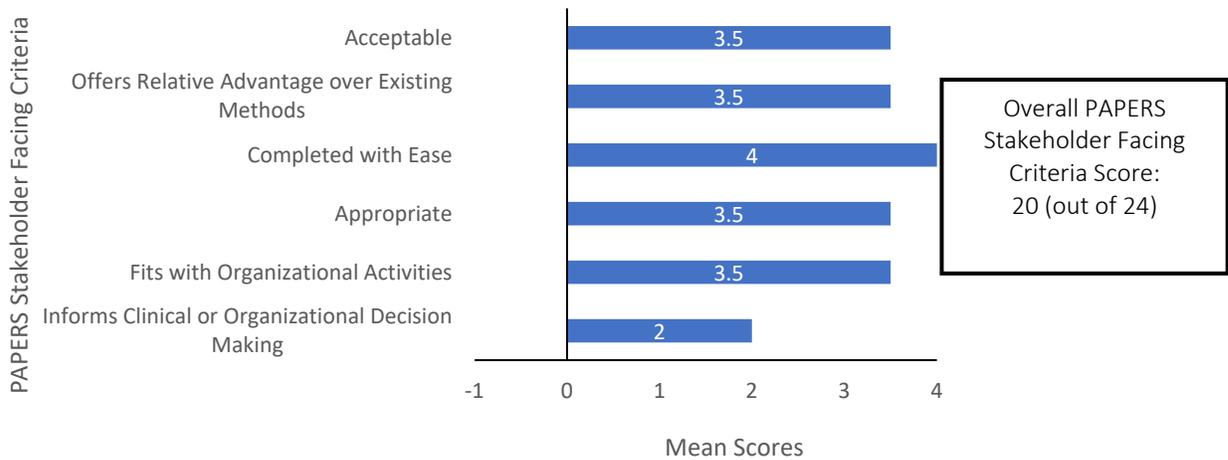
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PAPERS Objective Pragmatic Criteria - Scoring details below



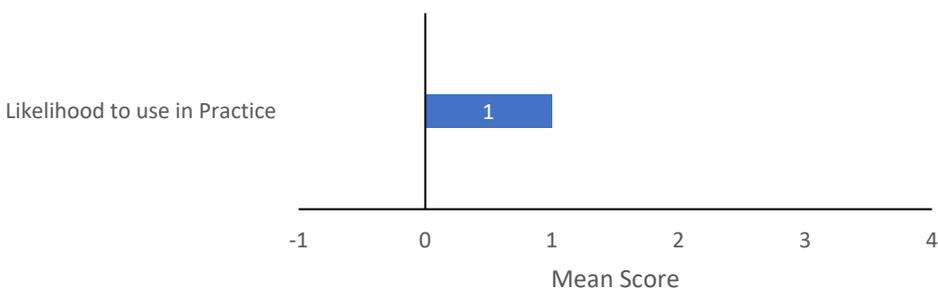
PAPERs Stakeholder Facing Criteria (n = 2 stakeholders) - Scoring details below.



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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 EBNAQ 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 Nursing Attitude Questionnaire (EBNAQ), this refers to the extent that individuals can use the EBNAQ to assess barriers/facilitators to knowledge use and monitor knowledge use based on the following factors:

- Beliefs and expectations towards evidence-based nursing practice (EBNP)
- Intention to conduct EBNP
- Feelings toward EBNP

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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 EBNAQ tool has evidence of content validity.

Content Validity Requirement 1:

- The EBNAQ was developed according to existing literature and questionnaires pertaining to nurses' attitudes towards EBNP and multiple stakeholder or expert evaluations as detailed below (Ruzafa-Martínez et al., 2011).

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Content Validity Requirement 2:

- The tool developers conducted two focus groups to ascertain that all relevant aspects pertaining to attitude towards EBNP was captured (i.e., ones not captured by the literature review). One focus group was conducted with 10 nurses who have 10 or more years of experience, and one focus group was conducted with eight nurses with less than 10 years of experience. The literature review and focus group compiled 78 items deemed to measure attitudes towards EBNP (Ruzafa-Martínez et al., 2011).
- The registered community nurses who agreed to participate in focus groups and questionnaire testing worked in 64 health centres in two areas of the Murcia Health Service (MHS), Spain at the time of the study. Their role included delivering care at the health centre and home visiting. A total of 395 nurses were invited to participate at different stages of questionnaire development and psychometric testing. Nurses were eligible to participate if they have worked continuously in the 64 participating centres for at least 5 months (Ruzafa-Martínez et al., 2011).
- A panel of six nursing researchers and experts in evidence-based nursing evaluated the relevance of each item into the three dimensions of attitude (cognitive, affective, and behavioural) of which corresponds to the three factors of the EBNAQ (Ruzafa-Martínez et al., 2011).
- The tool developers piloted the final EBNAQ in a sample of 10 registered nurses and conducted psychometric testing with a sample of 219 registered nurses (Ruzafa-Martínez et al., 2011).

Content Validity Requirement 3:

- The panel of six experts mapped the initial 78 items into the three dimensions of attitude (cognitive, affective, and behavioural). Then they rated the relevance each item to each dimension on a 5-point Likert scale. Items that did not have a 75% agreement were eliminated (Ruzafa-Martínez et al., 2011).

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Content Validity Requirement 4:

- The EBNAQ's items comprehensively measures nurses' attitudes towards EBNP because its development was informed by an evaluation of the EBNP literature and other questionnaires measuring aspects of EBNP. Further, the tool developers confirmed and expanded the list of items extracted from their literature review by conducting focus groups with registered nurses with varying levels of experience (Ruzafa-Martínez et al., 2011).

Limitations:

- The tool developers stated that their development/validation study is limited to Spanish speaking community hospital and that their findings does not translate to English speaking nurses working in hospital settings. Further, the tool developers stated that criterion validity testing of the EBNAQ is required.

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References

- 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.
- Ruzafa-Martínez, M., López-Iborra, L., & Madrigal-Torres, M. (2011). Attitude towards Evidence-Based Nursing Questionnaire: development and psychometric testing in Spanish community nurses. *Journal of Evaluation in Clinical Practice*, 17(4), 664-670.
- 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>