

# LEADING CHANGE TOOLKIT™

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

## NoMAD Tool

### Pragmatic Testing and Content Validity Data

#### *Summary of Pragmatic properties*

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

Based on three RNAO stakeholders, the NoMAD tool was rated **3** out of **4** for **likelihood to use**. The NoMAD tool has an overall **stakeholder facing assessments** score of **19** out of **24**.

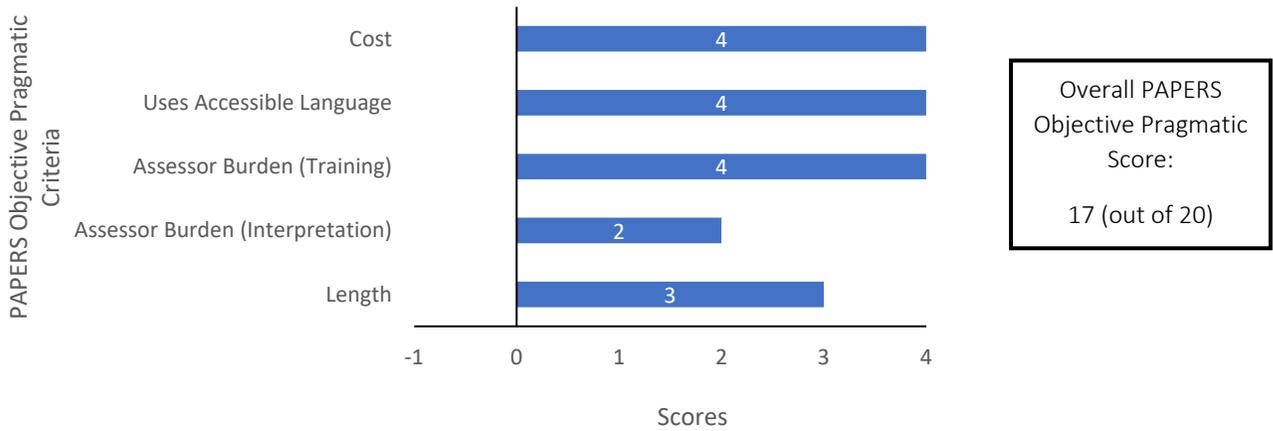
#### **Tool Pragmatic Properties**

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.

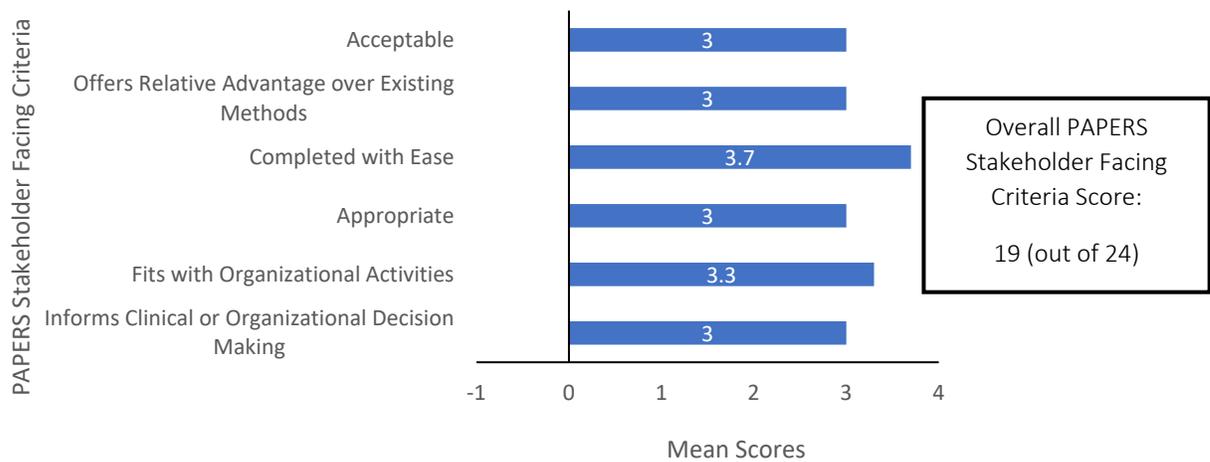
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## PAPERS Objective Pragmatic Criteria - Scoring details below



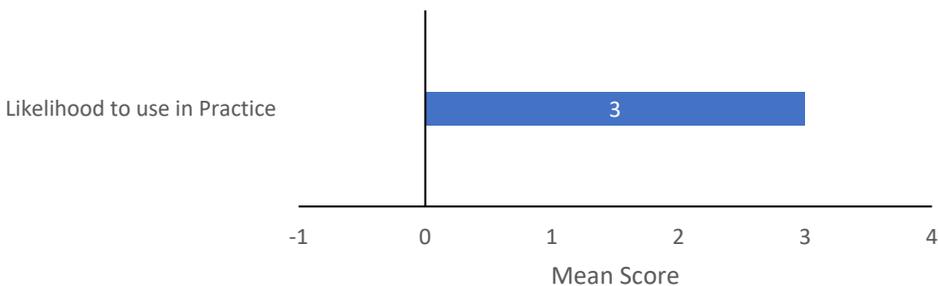
## PAPERS Stakeholder Facing Criteria (n = 3 stakeholders) - Scoring details below



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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 a checklist by Mokkink et al. (2010), the NoMAD 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 NoMAD tool, this refers to the extent that individuals can use the NoMAD tool to assess barriers/facilitators to knowledge use and monitor knowledge use according to the following constructs based on the Normalization Process Theory (NPT):

- Coherence
- Cognitive Participation
- Collective Action
- Reflexive Monitoring

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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 NoMAD tool has evidence of content validity.

### Content Validity Requirement 1:

- The NoMAD tool was developed through multiple phases consisting of (Rapley et al., 2018):
  - item generation according to an assessment of the NPT literature and the expertise of the tool developers regarding the NPT.
  - Three rounds of cognitive interviews with health care providers from diverse clinical backgrounds to assess the acceptability of the items.
  - Experts in NPT re-validated the NoMAD tool's items with the NPT.

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## Content Validity Requirement 2:

- The tool developers tested the NoMAD tool items for coherence and acceptability through three rounds of cognitive interviews. In total, 30 individuals from diverse clinical backgrounds participated in the cognitive interviews (general practice, health visiting, healthcare assistants, midwifery, nursing, occupational therapy, public health and speech and language therapy and a range of social and behavioural science backgrounds) (Rapley et al., 2018).
- The tool developers pilot tested the NoMAD tool on 10 clinicians (Rapley et al., 2018).
- The tool developers performed a validation study of the NoMAD tool with a sample of 522 individuals from differing disciplines (Finch et al., 2018).

## Content Validity Requirement 3:

- During the cognitive interviews, participants from diverse clinical back grounds ranked the acceptability and relevance of each item based on their experience in implementing research knowledge into practice (Rapley et al., 2018).
- Experts (individuals who have participated in the development of NPT and key authors of published articles that used the NPT) assessed the relevance of each item of the NoMAD tool to the NPT (Rapley et al., 2018).
- Hence, we argue that the NoMAD tool can be used to evaluate aspects of implementation and is reflective of NPT as claimed by its developers (Rapley et al., 2018).

## Content Validity Requirement 4:

- The cycles of theoretical translation and item generation performed by the tool developers, the cognitive testing completed with individuals who are implementing clinical practice, and theoretical validation by NPT experts assured the comprehensiveness of the NoMAD tool (Rapley et al., 2018).

## Limitations:

- According to the tool developers, further validation of the NoMAD tool is required to determine convergent and discriminant validity of its subscales (Finch et al., 2018).

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