

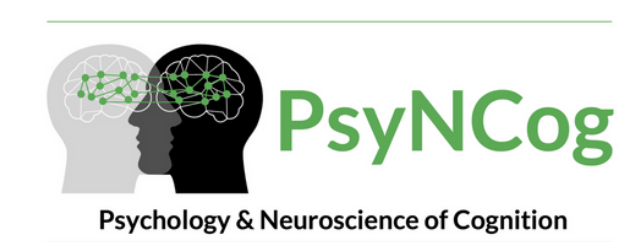
RESEARCHERS' AND CLINICIANS' ATTITUDES TOWARD SCIENTIFIC RESEARCH AND CRITICAL APPRAISAL: A SURVEY



Calista Sensi², Anita Ceman¹, Sacha Blause¹, Sylvie Willems¹

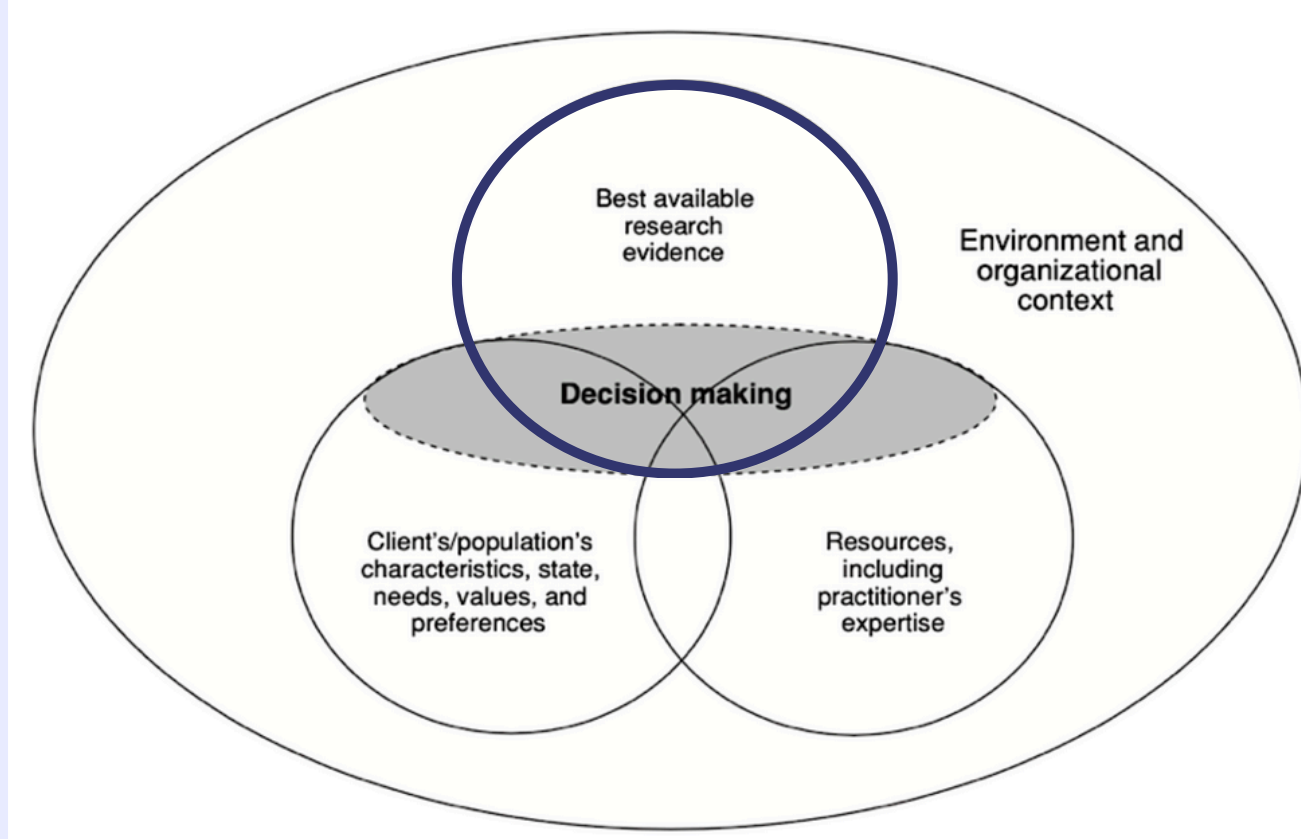
¹ University of Liège, Psychology and Cognitive Neuroscience Research Unit (PsyNCog)

² University of Liège, Research Unit for a life-Course perspective on Health and Education (RUCHE)



INTRODUCTION

Figure 1: Evidence-Based Practice



Despite the Evidence-Based Practice recommendations, clinicians still face difficulties applying research findings in practice, leading to a gap between scientific production and its clinical application [1].

Various barriers have been identified [1, 2] :

- Clinicians often lack the time to engage with the scientific literature
- Research is perceived as being poorly suited to clinical needs
- Clinicians feel incompetent to read the literature critically

This critical reading is nevertheless essential, given the high risk of bias in clinical research publications. Randomized controlled trials (RCTs), considered to be high-level evidence, are not exempt from this [3].

OBJECTIVE

Given this feeling of incompetence, our objective was to explore the actual critical reading abilities and attitudes toward RCTs among researchers and clinicians in neuropsychology.

METHODOLOGY

Participants

Two groups were recruited for comparison:

- Researchers working in neuropsychology, cognitive psychology or cognitive neuroscience (n=13)
- Clinical psychologists specialized in neuropsychology (n=7)

Materials & Task

Both groups read the same RCT on a cognitive intervention for children with ADHD [4], selected for its high methodological quality:

- Low risk of bias according to RoB2 [5]
- Adequate transparency (17 items CONSORT-SPI) [6]

Measures

After reading the RCT, participants completed a questionnaire assessing:

- Spontaneous bias identification
- Their perception of the article (1-4 Likert scale) concerning:
 - Comprehension (introduction, method, etc.)
 - Methodological quality
 - Sufficiency of information to reproduce the intervention, judge its efficacy and its utility

RESULTS

Figure 2: Fisher's Exact Test – Bias identification between groups

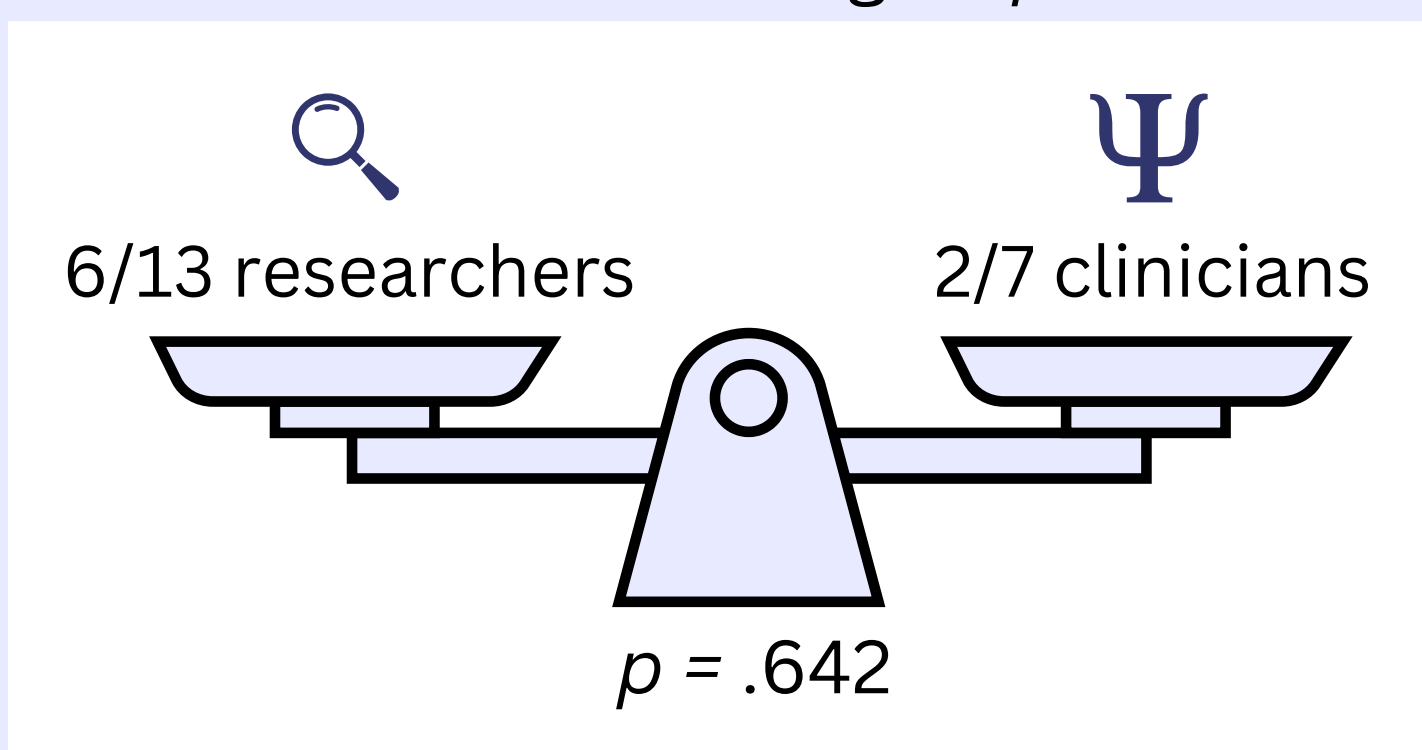


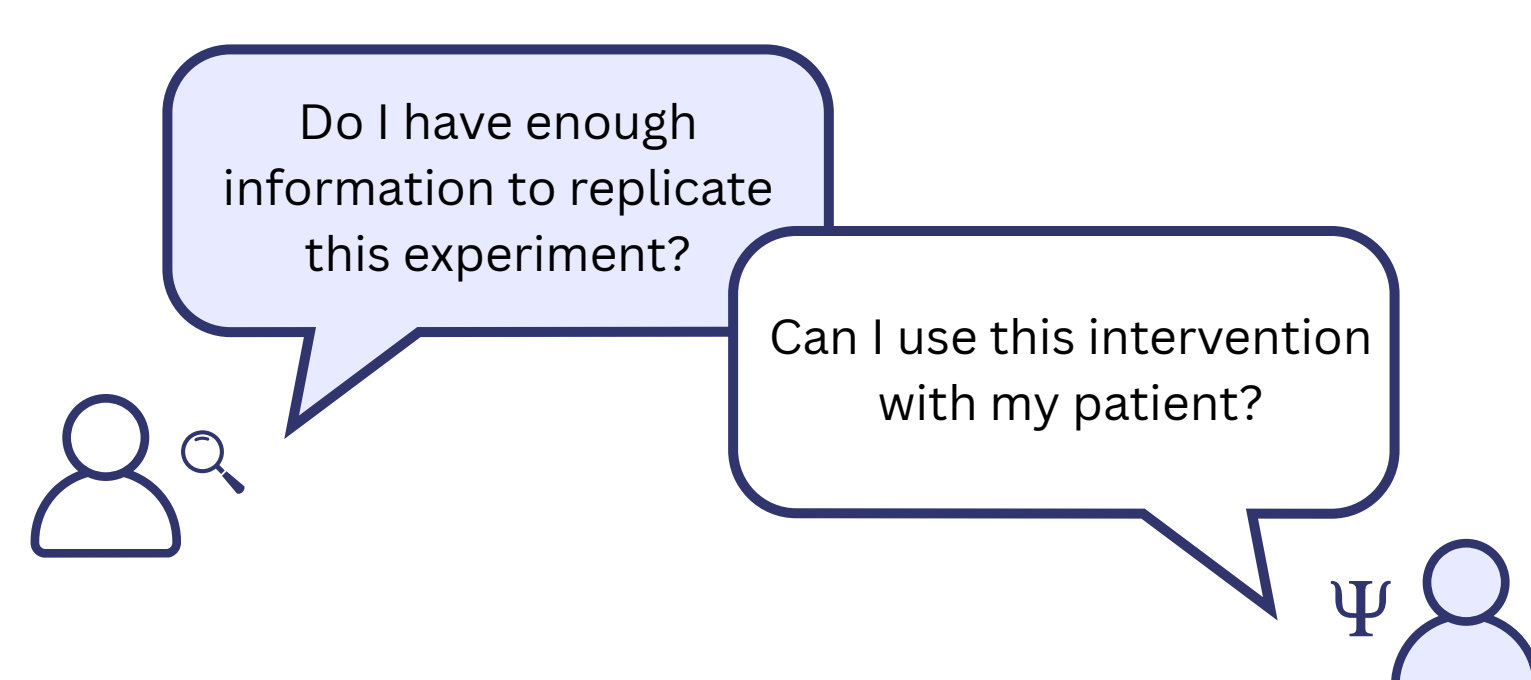
Table 1. Mann-Whitney U Test Results

	Me		M(SD)		U	p	r _{bis}
	Researchers	Clinicians	Researchers	Clinicians			
Comprehension of the Introduction	4	4	3.62 (0.51)	3.57 (0.54)	43.5	.444	.04
Comprehension of the Methodology	3	3	3.31 (0.63)	3.00 (0.58)	33.5	.148	.26
Comprehension of the Results	3	3	2.85 (0.56)	2.86 (0.69)	45.5	.519	.00
Comprehension of the Discussion	3	3	3.15 (0.38)	3.29 (0.49)	39.5	.771	.13
Assessment of methodological quality	3	3	3.23 (0.44)	3.00 (0.00)	35	.100	.23
Sufficient information to reproduce the intervention	4	3	3.38 (0.77)	2.43 (0.79)	18	.012*	.60
Sufficient information to judge efficacy	3	3	2.92 (0.64)	3.14 (0.38)	37	.811	.19
Sufficient information to judge utility	3	3	2.69 (0.48)	3.14 (0.69)	29	.945	.36

Notes. * $p < .05$; Me = Median; M(SD) = Mean and Standard Deviation; U = Mann-Whitney U statistic; r_{bis} = rank-biserial correlation

CONCLUSION

Our small samples do not differ in terms of bias analysis. In terms of perception, researchers reported significantly higher scores on having sufficient information to reproduce the intervention. This finding illustrates the **research-practice gap**: researchers and clinicians read the same text but diverge radically on its potential for application. This divergence can be explained by two distinct perspectives:



Effective Evidence-Based Practice requires research to meet a dual imperative: it must be methodologically rigorous and clinically applicable. Achieving this balance demands better dialogue and shared standards between researchers and clinicians.

To reduce the research-practice gap, we suggest the following:

- **Shared training:** Implement joint critical appraisal training (using tools like RoB2) for both clinicians AND researchers.
- **Increased collaboration:** Researchers must better understand the concrete needs of clinicians to improve the applicability of their writing. Clinicians must strengthen their methodological understanding to better engage with research.

References :

- [1] Blause et al. Archives of Clinical Neuropsychology, 2023
- [2] Nelson et al. Administration and Policy in Mental Health, 2006
- [3] Blause et al. Archives of Clinical Neuropsychology, 2025

- [4] DAVIS et al. PLoS ONE, 2015
- [5] Sterne et al. BMJ, 2019
- [6] Begg et al. JAMA, 1996