

BACKGROUND:

The relationship between knowledge, attitudes, and beliefs (KAB) is complex and reciprocal [8]. Accurate measurement of KAB is crucial for understanding healthcare professionals’ (HCPs) perspectives and supporting evidence-based obesity management. Effective and reliable measurement tools are necessary for gaining meaningful insights, such as identifying stigma and biases that impact patient care [2,7] and developing appropriate approaches to weight management interventions.

OBJECTIVE:

To identify and evaluate published tools measuring HCPs' KAB about adult obesity, using the COSMIN (Consensus-based Standards for the selection of health Measurement Instruments) framework [5,6].

METHOD:

This scoping review followed COSMIN methodology [5,6] and Arksey and O’Malley’s framework [1], refined by Levac and Colquhoun [3], and reported according to PRISMA-ScR [10].

Databases searched included Embase, Medline, Web of Science, PsycINFO, CINAHL, and Google Scholar, covering January 1999 to April 2023, with an updated search in May 2025. Studies were included if they involved HCPs and addressed KAB tool development or testing for adult obesity.

Two reviewers independently screened and extracted data, with a third reviewer resolving disagreements. Measurement properties were evaluated using the COSMIN Risk of Bias checklist [5], and evidence quality was graded with a modified GRADE approach.

RESULTS:

From 9,213 records (plus 84 updated abstracts), 5,454 were screened, 45 articles evaluated, and 4 studies included (Figure 1).

All 4 studies focused on tool development but failed COSMIN methodological quality and lacked content validity due to unrepresentative HCP samples and poorly defined constructs (Table 1). Psychometric evaluation was halted per COSMIN “stop rule” [5].

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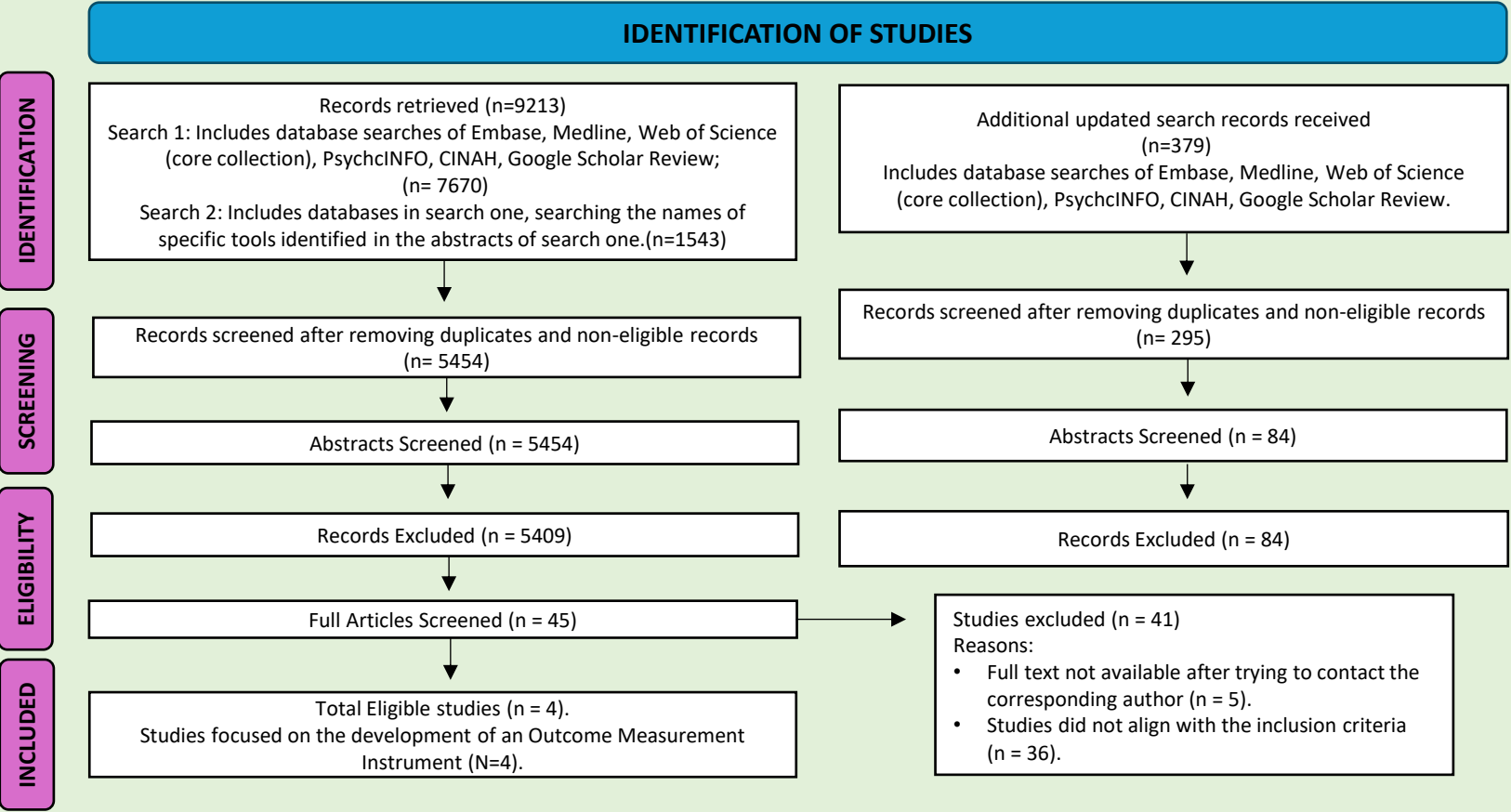


Figure 1: PRISMA Flow Diagram of Scoping Review

PROM	PROM design							Cognitive interview (CI) study ²				TOTAL PROM DEVELOPMENT
	General Design Requirements					Concept elicitation ¹	Total PROM design	General Design Requirements	Comprehensibility	Comprehensiveness	Total CI study	
	Clear construct	Clear origin of construct	Clear target population for which the PROM was developed	Clear context of use	PROM developed in sample representing target population			CI study performed in sample representing the target population				
Obesity Risk Knowledge Scale (ORK-10)	V	V	V	V	I	V	I	D	D	D	D	I
Fat Phobia Scale (FPS)	V	D	V	V	I	V	I	I	-	-	I	I
Implicit Association Test (IAT)	V	D	V	V	I	I	I	I	-	-	I	I
Explicit Fat Thin Bias	V	D	V	V	I	I	I	I	-	-	I	I
Obesity Perception Survey (OPS)	I	D	I	V	A	I	I	I	-	-	I	I

Table 1: COSMIN Risk of Bias Assessment – Quality of PROM Development Very Good (V), Adequate (A), Doubtful (D), or Inadequate (I).

DISCUSSION & CONCLUSION:

Current tools for assessing healthcare professionals’ knowledge, attitudes, and beliefs (KAB) on adult obesity are limited and outdated, failing COSMIN quality standards [5,6,9]. This gap highlights the need for modern, validated instruments to advance obesity-related research and clinical practice.

KEY REFERENCES:

1. Arksey, H., & O’Malley, L. (2005). Scoping studies: Towards a methodological framework. International Journal of Social Research Methodology, 8(1), 19–32.
2. Budd, G. M., Mariotti, M., Graff, D., & Falkenstein, K. (2011). Health care professionals’ attitudes about obesity: An integrative review. Applied Nursing Research, 24(3), 127–137.
3. Levac, D., Colquhoun, H., & O’Brien, K. K. (2010). Scoping studies: Advancing the methodology. Implementation Science, 5, 1–9.
4. Mokkink, L. B., De Vet, H. C., Prinsen, C. A., Patrick, D. L., Alonso, J., Bouter, L. M., & Terwee, C. B. (2018). COSMIN risk of bias checklist for systematic reviews of patient-reported outcome measures. Quality of Life Research, 27, 1171–1179.
5. Mokkink, L. B., Terwee, C. B., & de Vet, H. C. (2024). COSMIN: Consensus-based standards for the selection of health status measurement instruments. In Encyclopedia of quality of life and well-being research (pp. 1445–1448). Springer.
6. Sabin, J. A., Marini, M., & Nosek, B. A. (2012). Implicit and explicit anti-fat bias among a large sample of medical doctors by BMI, race/ethnicity and gender. PLoS One, 7(11), e48448.
7. Schrader, P. G., & Lawless, K. A. (2004). The knowledge, attitudes, & behaviors approach: How to evaluate performance and learning in complex environments. Performance Improvement, 43(9), 8–15.
8. Swan, K., Speyer, R., Scharitzer, M., Farneti, D., Brown, T., Woisard, V., & Cordier, R. (2023). Measuring what matters in healthcare: A practical guide to psychometric principles and instrument development. Frontiers in Psychology, 14, 1225850.
9. Tricco, A. C., Lillie, E., Zarin, W., O’Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D., Horsley, T., & Weeks, L. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. Annals of Internal Medicine, 169(7), 467–473.

