A tool to appraise all types of public health evidence: the Public Health Ontario MetaQAT

A summary of

National Collaborating Centre
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Categories:
Tool, Appraise, Synthesize
Tool

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Relevance For Public Health

The tool is highly relevant for public health topics that often include many different types of evidence and study designs to answer one question, as the same process can be applied regardless of study design. The tool is appropriate for use with any public health topic. For example, organizations can use the tool to appraise evidence on brain injury, obesity or women's health issues. It supports the use of evidence for recommendation formulation, development of public health action, or scientific research, including public health researchers and practitioners, in that it provides a transparent process for quality appraisal and considerations for the application of evidence.

Description

The purpose of the MetaQAT as described in a full publication is to address the limitations in current quality appraisal tools. The benefits of the MetaQAT tool are that it is both flexible enough to address a variety of public health questions, and sufficiently rigorous in terms of the critical appraisal of methodology. Existing quality appraisal tools in the published and grey literature were identified and reviewed to map concepts of quality appraisal for public health evidence. A four-domain appraisal framework was developed, consisting of relevancy, reliability, validity, and applicability. A suite of design-specific companion tools were chosen to provide further guidance to assess validity of common designs, if required. The MetaQAT tool allows users to simultaneously assess the many relevant study designs available for public health research, including non-standard designs.

Implementing the Tool

Who is Involved?

Anyone wanting to assess study relevance, reliability, validity, or applicability would find this tool useful.

Steps for Using Tool

MetaQAT users conduct the quality assessment process by answering questions in each domain of the framework. The meta-tool can be fit to individual projects by following the instructions in the guidance document. Written answers are recorded in the tool, detailing the main quality points relevant to each question. Overall comments for each domain are also recorded to facilitate summary of the assessment. In the validity domain, users are provided with suggestions for general internal validity issues to consider, and directed to a list of design specific companion tools to supplement the general content.

Evaluation and Measurement Characteristics

Evaluation

Has been evaluated.

This tool was evaluated for face validity, content validity, and criterion validity.

Validity

Not applicable

Reliability

Information not available

Methodological Rating

 Unknown/No evidence

Tool Development

Developers

L. Rosella
C. Bowman
B. Pach
S. Morgan
T. Fitzpatrick
V. Goel

Method of Development

Existing published quality appraisal tools and grey literature were searched and reviewed to map concepts of quality appraisal for public health evidence. Face validity was assessed by consultation; content validity was assessed by comparison to existing tools; criterion validity was assessed by comparison of the content of assessments between two groups of appraisers.

Release Date

2016

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Resources

Title of Primary Resource	MetaQAT
File Attachment	None
Web-link	https://www.publichealthontario.ca/en/ServicesAndTools/CriticalAppraisalTool/PHO_MetaQAT_2015.pdf
Reference	
Type of Material	Document
Format	On-line Access
Cost to Access	None.
Language	English
Conditions for Use	Not specified

Title of Supplementary Resource	The development and validation of a meta-tool for quality appraisal of public health evidence: Meta Quality Appraisal Tool (MetaQAT)
File Attachment	MetaQAT.pdf
Web-link	http://ac.els-cdn.com/S0033350615004370/1-s2.0-S0033350615004370-main.pdf?_tid=e4bc855a-5f0f-11e6-b993-00000aab0f6c&acdnat=1470843434_1068d92e0b47fb272b90df0c233b92bc
Reference	Rosella, L., Bowman, C., Pach, B., Morgan, S., Fitzpatrick, T., & Goel, V. (2016). The development and validation of a meta-tool for quality appraisal of public health evidence: Meta Quality Appraisal Tool (MetaQAT). *Public Health*, *136*, 57-65.
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