

Chapter 9

Critical Appraisal Tools and Reporting Standards in Dissertation Research: Tools to Standardize and Sharpen the Edge

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ABSTRACT

Critical appraisal tools are essential instruments used to systematically assess the validity, reliability, and applicability of research evidence, aiding in informed decision-making across various fields. These tools help to minimize bias and evaluate the methodological rigor of studies. Complementing critical appraisal, reporting standards provide guidelines for transparently and comprehensively documenting research findings. Adherence to these standards ensures clarity, facilitates accurate interpretation, and enhances the reproducibility of research. Together, critical appraisal tools and reporting standards are indispensable for evidence-based practice, promoting the use of high-quality research in decision-making and contributing to the advancement of knowledge.

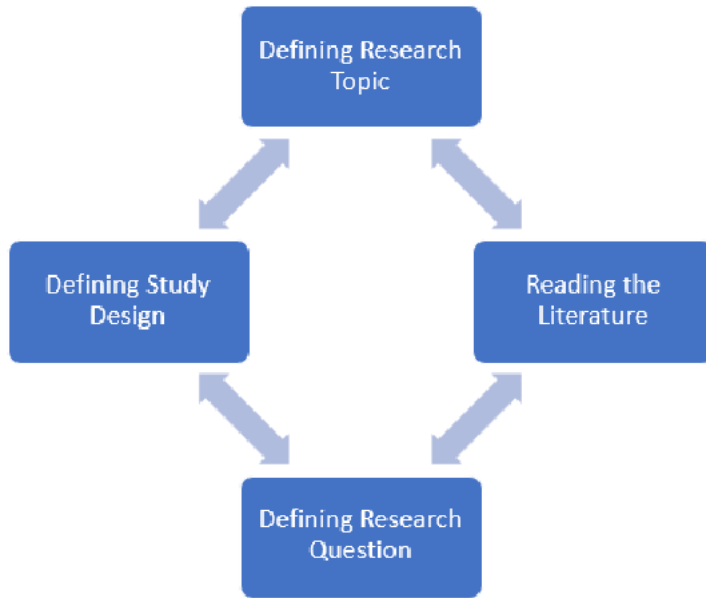
INTRODUCTION

The fundamental tenets of critical appraisal enable us to assess methodological rigor and determine how well the results relate to our own context. Steer clear of adopting a “tick box” approach when utilizing these technologies. A thorough crit-

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ical evaluation of the study is necessary to demonstrate a critical understanding of research design, ethics and integrity and best practice. It can also increase the ability to effectively communicate research to relevant audiences. By critically appraising published literature, valuable insights in health and social care are generated.¹

Figure 1. Research cycle



By critical appraisal, we arrive at a clear research question with proper study design using valid methods to reduce bias and receive repeatable and reliable results with significant findings that could influence patient care and that be applied practically at the clinical setting and among patient population. The cycle is illustrated in Figure 1.

CRITICAL APPRAISAL TOOLS FOR HEALTH RESEARCH

Critical appraisal tools are essential for evaluating the quality and validity of research studies. They help researchers and clinicians assess the strengths and limitations of evidence to make informed decisions. A list of some critical appraisal tools, categorized by study design are as follows:

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