The Theoretical Integrative Review—A Reader's Guide

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The term *integrative review* has been used in different ways by knowledge synthesis scholars. Some have considered it broadly, as an overarching term for various types of knowledge syntheses, including scoping, critical, and meta-narrative reviews. The integrative review term has also been applied more narrowly to describe a single, specific form of knowledge synthesis. In this narrower framing, these *empirical integrative reviews* communicate the analysis and synthesis of prior evidence-based studies to offer a more comprehensive account of a specific phenomenon: they focus on the integration of data and other research findings from multiple empirical studies pertaining to a single topic.[1] The *theoretical integrative review* (TIR), however, is unique from other forms of knowledge synthesis and is the focus of this article. TIRs offer health professions education (HPE) scholars an important method for examining available theories related to a specific phenomenon, critically appraising those theories, and constructing an argument supporting the next iteration in theory evolution.

Foundations

What Is a TIR?

A TIR focuses on theories offered in the literature that explain a particular phenomenon. The TIR compares these theories and examines their constitutive premises, the breadth of their explanatory power and internal inconsistencies, and the nature of the contribution that these theories offer (eg, predictive, emancipatory, explanatory). The purpose of a TIR is to offer reformulations or integrations of theories relating to a phenomenon and an interpretation or argument about them. For example, reformulations of theories might propose one theory to be more compelling in a given context than others, suggest a new conceptualization that extends or modifies the effectiveness of an existing theory, or articulate an altogether new theory that differs markedly from those already described in the literature.

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Importantly, TIRs offer researchers the opportunity to bring together theories from a wide array of disciplines. Paradigmatic continuity is not a precondition for a theory's inclusion in the review; TIRs can gather theories from a wide range of disciplines, with differing purposes and different foci on the phenomenon.[2]

How Are TIRs Different From Other Knowledge Syntheses?

TIRs are dissimilar from other forms of knowledge synthesis because of their focus on the theories that explain a phenomenon. Most other forms of literature reviews bring together data from empirical studies into a coherent whole that can answer a specific question (eg, systematic reviews address narrowly focused questions) or that generates new insights by synthesizing a particular type of data (eg, a meta-ethnography integrates qualitative data). In contrast to these aims, TIRs clarify the theoretical groundings that shape the research investigating a particular phenomenon.

When to Consider TIRs in Graduate Medical Education

Professional identity formation provides a good example of a phenomenon in which a TIR might enhance focus for HPE scholars working in graduate medical education. There are numerous theories relevant to identity, which range from those that focus on a better conceptualization of *what* constitutes an individual's sense of self (internal cognitive theories) to those that are concerned with *how* it is shaped (social interaction theories). In studying the former, an HPE scholar might prepare a project informed by Erikson's theory of adolescent role confusion and the quartet of Marcia's identity statuses, with the goal of extending our understanding of professional identity within the individual learner.[3,4] Alternatively, another researcher might be interested in the process of identity formation and work to integrate Lave and Wegner's notions of the novice's entrance into a community of practice through legitimate peripheral participation, with Blasi's triadic self-model of moral behavior (responsibility, moral identity, and

self-consistency).[5-7] These social interaction theories direct researchers' attentions to how moral behavior may "legitimize" peripheral participation and facilitate a learner's new identity as a member of the community of practice.

Given how different theories offer different foci for studying professional identity formation, engaging in a TIR could enable review research teams to explore (1) which theories to attend to; (2) which foci to examine; and (3) how those distinctive orientations affect the development of a learner's professional identity. Such an analysis of the available professional identity formation theories would help program directors work with learners toward goals and outcomes based on learner needs. As this example illustrates, TIR reviews are valuable tools for knowledge synthesis in graduate medical education. Another example in BOX 1 illustrates the case of Dr Smith, which continues throughout this special review series, considering the same question using different review methodologies.

BOX 1 The Case of Dr. Smith

Dr Smith, a program director, has been tasked to develop an interprofessional education (IPE) experience for the residency program. She decides that conducting a literature review would be a savvy way to examine the evidence and generate a publication potentially useful to others.

After running a quick Google search using the term "interprofessional education," Dr Smith finds more than 11 000 000 hits. Turning to PubMed and using a general subject search with the same term, "interprofessional education," Dr Smith identifies 24 000 matches. She randomly samples a few papers and notes the huge diversity of types and approaches, including randomized trials, qualitative investigations, and critical perspectives. She begins to think that the large diversity in the literature may reflect very disparate views as to the nature of IPE as a phenomenon, why it is important, and what impact it has on learners, teachers, and patients.

Dr Smith has read that a strong theoretical grounding is critical for scholarship in health professions education; she decides to explore the theoretical underpinnings of the phenomenon of IPE. Dr Smith plans a theoretical integrative review of IPE to map the landscape of the existing theoretical foundations and synthesize a more complete framework—or to propose one de novo.

Processes and Considerations

What Are the Orienting Assumptions of TIRs?

The focus of a TIR is on the analysis, critique, and advancement of theories that explain a phenomenon. This kind of knowledge synthesis does not aim to generate a single "correct" understanding of the phenomenon. Instead, TIRs recognize that theories can change; that some premises of a theory may hold while others do not; that application and understanding of a theory can vary across contexts; and that any theory constructed or revised via a TIR is a proposition that is open to interpretation and refutation. These characteristics of TIRs rest on specific ontological and epistemological assumptions.

Ontology of the TIR: Relativism

In terms of ontology (ie, the nature of reality), TIRs are grounded in the premise that reality is socially constructed and that the phenomenon a given theory seeks to explain is not available for full and complete understanding. Instead, the reality of the phenomenon is built through conversations, interactions, and/or debate that exist between the review authors and other members of the research community through their professional work. The phenomenon will be understood by some individuals within a specific context in one way but experienced by others working in a different context in a different way. Thus, multiple mental constructions (interpretations) of the phenomenon are possible. It is important to note that conflict between interpretations is not a threat to validity. The reality of the phenomenon is simply variable depending on the subjective interpretations of the individual.

Epistemology of the TIR: Subjectivism

In a TIR the author interacts with the source documents—existing theories to be integrated together—in an iterative process to explore, challenge, and construct an understanding of the phenomenon. The knowledge built in this integration is not an objective fact; instead, it is an interpretation that is developed by and that reflects the subjectivity of the individual(s) who conducted the synthesis. Knowledge—the interpretation of theories offered in a TIR—is not value-free. Knowledge created by the TIR is imbued with the values of the researchers doing the study, shaped by the context in which it was created, and fitted to the purpose for which it was intended.

Purpose of the TIR

The TIR's purpose is the critical examination of theories related to a specific phenomenon. Through this examination, the TIR can fulfill many different goals, such as revising an existing theory based on insights gleaned from examining multiple theories, suggesting the appropriateness of individual theories to different kinds of research purposes, integrating premises from a variety of theories into a new theory, and explaining the weaknesses limiting the applicability of individual theories.

The Types of Questions TIRs Can Address and the Answers They Generate

Since TIRs can address several different purposes, they can also address many types of questions. However, the question will focus on the interpretation and synthesis of theory. TIRs can be used to propose a theoretical framework for an undertheorized phenomenon. To illustrate, a TIR focused on the phenomenon of ethical behavior might ask: *What theories can help inform our understanding of residents' experiences of ethical decision-making? What premises of these theories are particularly relevant in palliative care contexts?* TIRs can also be harnessed to challenge mature, dominant paradigms with new theory. For example, regarding the phenomenon of ethical behavior a TIR might ask: *How do theories of moral judgement challenge our understanding of residents' ethical decision-making practices?*

Strengths, Limitations, and Rigor

Strengths

TIRs have several unique strengths. They offer a clearly described approach to the critical examination of existing theory, a goal not shared by other types of reviews or knowledge syntheses. Because TIRs bring theories from many different domains into conversation with each other, these reviews are particularly well-suited for interdisciplinary research. Finally, in its identity as an *integrative* review, a TIR is explicitly forward-thinking, by seeking to create new knowledge, insights, and even new theory through the work of integration.

Limitations

While TIRs may advance existing theory or generate a new one, they typically do not provide a concrete outcome. A TIR will not present a defined, readily applicable, "evidence-based" solution to a specific problem. Instead, the product of the TIR is advancement of theory, not refinement of practice. Furthermore, TIRs place significant demands on authors and readers, as they require careful analytical study of theories drawn from diverse and unfamiliar disciplines. Such analysis is abstract and requires authors and readers to focus on the premises that explain a phenomenon—a task that is often reserved to philosophers and theorists. Finally, the relativist and subjectivist underpinnings of TIRs may provoke controversy in many HPE contexts where post-positivism continues as the dominant paradigm.

Markers of a TIR's Rigor

To critically appraise the strength of a TIR, readers should look for evidence of rigor in each step of the project, which should be communicated in each section of the paper. In the introduction, a statement should explicitly classify the work as a TIR. The authors should identify the phenomenon of interest (eg, professional identity formation, ethical decision-making, interprofessional education) around which the TIR is developed, describe the phenomenon's importance in HPE, and provide an overview of the theories that have been used to examine the phenomenon. If the phenomenon of interest is new or emerging in HPE, a theoretical foundation may have not yet been developed. In this case, authors should describe how theories from other disciplines can meaningfully contribute to a new understanding of the phenomenon in HPE and provide a rationale for selecting theories within or across these disciplines as a starting point.

In a rigorous TIR, 3 processes should be clearly visible in the methods: (1) the *literature search* used to identify the theories in the TIR, including the specific databases, search terms, and secondary search strategies; (2) the *critical examination* of these theories, including descriptions of the ways in which each theory is analyzed, evaluated, and deconstructed; and (3) the *theoretical integration* facilitated by the authors, with clear communication of the critical thinking that produces a synthesis of new ideas, knowledge, theory, or research questions.

Finally, a key characteristic of a strong TIR is its clarity of writing. This is challenging for authors, because it requires the communication of new ideas and concepts that are abstract and often unfamiliar within HPE. A high-quality TIR should ignite new interest in HPE researchers by offering revised ways of thinking about a phenomenon and suggesting important areas and directions for future scholarship. BOX 2 identifies 3 resources that may be of particular value to those preparing to develop a TIR.

BOX 2 Resources to Read in Preparation for a Theoretical Integrative Review

1. Kirkevold M. Integrative nursing research—an important strategy to further the development of nursing science and nursing practice. *J Adv Nurs*. 1997;25(5):977-984. doi:10.1046/j.1365-2648.1997.1997025977.x
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Conclusions

TIRs represent a powerful approach within an array of knowledge syntheses available to HPE scholars. TIRs provide a unique function: the critical examination of

existing theory in relation to a phenomenon of interest, which is essential in HPE. As HPE develops as a recognized discipline, one measure of the maturity of our field is an increased understanding and use of theory.

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