

Methodological sophistication: some difficulties in nursing research

Sofisticação metodológica: algumas dificuldades na investigação em enfermagem

Sofisticación metodológica: algunas dificultades en la investigación de enfermería

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Opening remarks

Knowledge appears in many forms including philosophy, theory, research, practice, common sense, expertise, and scholarliness. Scholarly work embraces plural paradigms and interconnects philosophy, theory, research, and practice (Meleis, 1991). A sophisticated work is characterized by complexity, depth, and efficacy. Methodological rigor involves a search for excellence with meticulous observance of details and steady accuracy. A worldview is inspired and guided by philosophical assumptions in intersections with designs and methods (Creswell & Creswell, 2018).

Methodological sophistication in nursing research

The international trend of nurses pursuing graduate studies has provoked a major, systemic impact on nursing education, management, practice and research in their home countries. International dialogue in interdisciplinary and multidisciplinary research teams stimulates the advance of nursing research. In such intellectual collaborations, nurses encounter new theories, theoretical and conceptual models, and frameworks. They learn about innovative, unknown research designs, creative methods of data collection, and exciting methods of data analysis, inciting strategies for the dissemination of results.

Because there are so many nursing research innovation opportunities, there is risk for the work's methodological reliability and rigor. Disruption in methodology can emerge due to an implicit fascination to obfuscate the need for harmony among elements of a research project. Therefore, a profound reflection is required about a project's underpinning scientific paradigm, its philosophical roots, and premises. The lack of awareness of one's gaps in mastery of knowledge in many theoretical, conceptual, and procedural areas results in the writing and implementation of incoherent, contradictory and unnecessarily complex research projects. Consequently, researchers are misled and use incompatible theory-concept-method, which is wrongly perceived as a "sophisticated" and "advanced" structure. Such undetectable knowledge gaps and misconceptions delay the development of one's research expertise.

Which argumentation?

In nursing research, knowledge requires raw material, core, essence, substance, strategy, tool, and a goal to guide the endeavor of scientific discovery. A well-educated nurse researcher is positioned to value and acknowledge the need to learn about all research-related features in a wide scope. Embracing so-called prestigious, gold-standard research design and its methods is insufficient to perform high quality research. In reality, there is danger in blind passion, advocacy, and interest for only one research design. This trend is not a new concern for nursing research scholars. For example, Meleis (1987) identified the danger of an unvaried research approach when she made a seminal call for passion about the substance and essence of nursing in all areas of knowledge development.

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Meleis (1987) argues that the nursing discipline is embedded in polarization, dichotomies and paradoxes, which is also evident in the research realm. She proposes that first, one should think about the needed or intended knowledge to be produced; then, think about the appropriate method to do so. The focus should be the essence of knowledge, followed by reflections about knowledge gaps that exist in a scientific paradigm, thus guiding researchers to consider work within that paradigm. As a natural unfolding, the researcher can identify compatible methods of discovery while reflecting on how the research could contribute to advance nursing research methodologies to ultimately benefit the population's health. Without defending any design "demons or angels", Meleis advises us to consider how nursing research methods could be combined to advance our research methodologies. The focus on research methods incites a conversation about methodological sophistication to produce meaningful nursing knowledge. Meleis (1987, p. 8) claims: "A passion for the knowledge that can guide the way to get to it including method and refinement." Today, the emphasis on a research design and method does not ensure methodological sophistication to uphold quality in the knowledge produced. The nurse researcher's technical and personal qualities and skills are essential to accomplish such excellent scholarly work.

As an experienced Brazilian journal editor and international research reader, I can state that some authors have no strong adherence to theoretical and philosophical grounds. The whole project is deprived of an internal 'dialogue' . . . leading to confusion in data interpretation . . . and innocuous conclusions. (Dr. Marcelo Medeiros, personal communication, Nov 7th, 2020)

It is noteworthy to add that the nurse researcher's passion, enthusiasm, and adherence to well done work is not enough. A fearless attitude toward knowledge uncertainty inspired by ethical principles of truth, trust, transparency, and commitment to a scientific work, along with substantiated social contribution, is paramount.

The transfer of nursing knowledge in research between countries with distinctive languages and positions of maturity in nursing research can pose additional challenges. The superficial or limited education in philosophy of science, instrument development/validation, and refined methods of data/findings analysis jeopardizes the acquisition and consolidation of research-related skills at any level of expertise. The education and practice of serious methodological inadequacies, which are wrongly perceived as acceptable, endangers the education and practice of a nurse scientist. Unawareness of undeveloped skills questions the identity of a nurse researcher with consolidated knowledge. If this distorted identity characterizes a research supervisor, there is a risk for master and doctorate students to replicate and perpetuate the unidentified gaps in education in a new generation of nurse researchers. If methodological sophistication as a method of conducting research could be translated by simple expressions such as *doing the work well, work in a simple, logical and coherent manner*, its identification and valorization would depend on the researchers' interpretation of such simple advice.

Disruptive thoughts?

The international literature is abundant with issues, concerns, and warnings about quality in nursing research. Despite such incitation to collective discussion and individual reflection, this topic seems less appealing for many nursing educators, undergraduate and graduate students, post-doctoral fellows, and researchers.

Innovation, re-creation, and creativity also characterize nursing research endeavors to solve the population's problems and enhance their health and quality of life. Nurses are invited to be audacious in the exploration of many sources of knowledge to build their own research methodologies, grounded on meaningful philosophical ideas and theoretical frameworks. Scrutiny about prevalent ideas can reshape traditional, uncontested concepts. However, the elegance of formulating new answers for complex, human problems is a new initiative for nursing as a science and science-based practice.

"There is no point to having highly sophisticated research methods if the research object or the research question doesn't lead to any novelty." (Dr. Denise Munari; personal communication, Nov 6th, 2020).

Consequently, the researcher's knowledge can be organized in a more reflexive degree of *knowledge of knowledge* (Morin, 1982). Responding to complex issues and keeping their essence without being simplistic is at the core of the complexity theoretical contribution to science (Morin, 1982). Application of knowledge from other disciplines, demonstrating a researcher's intellectual maturity, is usually less prevalent in research reports and published articles. Manuscript reviewers frequently identify that writers are unable to integrate the full scientific structure into a manuscript. On the other hand, authors' themselves have been surprised by the inability of some reviewers to understand the use of less frequent or totally new research methods. In fact, some reviewers seem to be intimidated by unknown theoretical/conceptual frameworks/ideas and research methodologies that could indeed educate the readers about advancement in nursing research methodologies and conceptual thinking. The fear of accepting novelty and innovation confirms the lack of interest in updating knowledge, which is evident in the current fast pace of research methodologies.

Even in the process of writing a scholarly manuscript for submission for review/publication, the simple, concise, clear and objective scholarly writing style is wrongly perceived as deprived of philosophical underpinnings. The implicit discourse in the complex scholarly writing process demands corroboration by solid philosophical base (Volpato, 2011, p. 374): "Brazilian scientists urgently need a revolution in thinking. Our programs of graduate studies had not been successful in overcoming such barriers in thinking. We should be entrepreneurs when visualizing knowledge evolution and we must venture fearlessly into innovative thoughts."



Another research-related sophistication is in technology. This sophistication was possibly achieved in the preparation of manuscripts for publication with the use of online searches for similarities in content, grammar review, and scholarly writing, indicating therefore, a complementary type of methodological sophistication.

“the use of virtual tools are not recent but virtual environments are dynamic and popular although they are no more new . . . but it is worth mentioning that technological-methodological sophistication also happens in experimental research even with basic technology.” (Dr. Ivone Cabral; personal communication, Nov 7th, 2020).

Conclusion

Methodological sophistication is a desired standard to enhance the quality and reputation of nursing research, primarily in countries with interest in its development and consolidation. A call to action to readers may include the (a) stimulation for resuming the old habit of reading a book about philosophical and theoretical works to abolish the use of “online fast-food knowledge encyclopedia” by a scientist-to-be; (b) continuous education in a foreign language (French, English, Italian, German, etc.) to secure safe use of international authors’ work; (c) intellectual exchange and dialogue to strengthen critical thinking skills; and (d) protection of one’s interest and ability to well do the scientific work with integrity, truth, and quality.

References

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative and mixed methods approaches* (5th ed.). Sage.
- Meleis, A. I. (1991). *Theoretical nursing: Development & progress* (2nd ed.). Lippincott.
- Meleis, A. I. (1987). Revisions in knowledge development: A passion for substance. *Scholarly Inquiry for Nursing Practice: An International Journal*, 1(1), 5-19. <https://doi.org/10.1891/0889-7182.1.1.5>
- Morin, E. (1982). Le système, paradigme ou/et théorie. In E. Morin (Ed.), *Science avec conscience* (pp. 172-189). Arthème Fayard.
- Volpato, G. L. (2011). Ciência, publicação e redação científica. *Revista Eletrônica de Enfermagem*, 13(3), 374. <https://doi.org/10.5216/ree.v13i3.13452>



