

Translational Research in Nursing... Vistas Galore

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Translational research (TR) may appropriately be defined as an important facet of expansive, evidence-based scientific research that transforms scientific findings arriving from the portals of the basic laboratory, clinical settings, or community endeavors into novel clinical tools or valuable applications. Besides enhancing patient care, TR holistically upholds public health. The cherished aim of TR is to build the bridge from “bench to bedside”.^{1,2}

Translational research is considered at different levels. These manifest at different levels, namely two-stage process (referred to as T1 and T2), four-stage process (denoted by T1, T2, T3, and T4), and five-stage scheme (T1, T2, T3, T4, and T5). It needs to be emphasized that in the two-stage model, T1 is depicted by the “bench-to-bedside” wherein knowledge is translated from the basic sciences into the precincts of therapeutic strategies; T2 research essentially draws our attention toward translating the findings from clinical trials into the day-to-day ethical practice. The five-stage scheme portrays research accomplished through basic research, clinical research, and implementation in the community. This is a noteworthy feature of TR.

The focus on improving the wellness of the global populations by suitably reforming suboptimal and less than objective social structures is the crux of TR.³ Viewing from a different perspective, TR includes two areas of translation. The first one pertains to the process of applying findings generated during evidence-based research to the development of comprehensive trials and studies in humans, whereas the second designated area of translation essentially revolves around research aimed at enhancing the adoption of best practices into the folds of the community. It needs to be reiterated that no TR will be considered viable sans the community. The economic viability is regarded as an important attribute of translational science.²

The idea of TR was first conceived in nursing in the 1970s and since then has witnessed rapid, focused, and monumental progress. Research activities in nursing sciences have acquired newer dimensions in recent times. Collaborative research has been receiving wide attention that includes the contributions arising from TR. A point worthy of mention is that TR allows scientists to think and endeavor beyond the portals of the laboratories into the real-world settings. Nursing personnel have learnt the art of appreciating this perspective as a valuable clinical experience. Unlike the other members of the healthcare workforce, nurses have recognized the immediate and long-term concerns expressed by the patients and their relatives. Thus, nursing personnel are strategically placed in developing TR for ensuring optimal health.⁴

Having said that, the routine quantification of nursing-sensitive outcomes is considered crucial to measuring the overall impact of translational nursing research. Based on the inputs received from acute care hospitals as well as long-term care facilities, enough evidences have been elicited pertaining to the reliability of tools in the objective assessment of nursing-sensitive outcomes, but

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aimed at addressing holistic health to be conferred on the patients, including the quality of life.

Translational research literally determines the metamorphosis of knowledge into practice. Practice in the health sciences automatically calls for the application of skills learnt in a manner that complies with the highest tenets of patient care and safety, with ethical values duly ingrained.⁴ In other words, TR transforms the evidence-based scientific findings into seamless novel clinical tools, well-defined processes, besides applications reaching out to the community. Enhancing patient care and advocating holistic public health would fructify our pursuits toward the activities—**From Bench to Bedside and Bedside to Bench**.⁵ From Bedside to Bench to Bedside to Clinical Practice is yet another paradigm in TR.

The pedestals of TR include⁶ the following:

- Developing treatment modalities and objectivized interventions for the betterment of the community.
- Testing the efficacy and sustainability of endeavors realized through such treatment modalities and interventions in total compliance with the established values and ethical principles.
- Wide dissemination and implementation of research toward facilitating system-wide change, the salient feature of translational science, in general.

Nurse scientists need to be proficient in studying as to how the individuals respond to illness.⁷ Alternately, the study pertaining to patients' adaptation to changes also comes under immediate purview. To enable this, the astute observations derived from clinical settings to the design and development of their basic and applied research is considered central to the concept of TR.⁸

The concept of nurse scientists has come of age. There is an urgent need to identify the most effective strategies to accelerate TR. The creation of Nurse Scientist Translational Research Group (NS-TRIG) is cited as an excellent initiative in this direction. The NS-TRIG is an instance to portray capacity building so as to enable the nurse scientists don the mantle of leadership. This would eventually culminate in the favored evolution of translational science.⁹

The conglomerate of interdisciplinary, transdisciplinary, and multidisciplinary modalities assume great relevance that is synonymous with the concept of team science.¹⁰ The concerted efforts of the scientists in general and nurse scientists

in particular on relevant issues that essentially fall between disciplinary boundaries sum up interdisciplinary research. On the contrary, multidisciplinary research is synonymous with the coordination of research among the discerning scientists who hail from different backgrounds and disciplines. Transdisciplinary research essentially refers to collaborative projects, wherein a plethora of information exchange, modification of scientific modalities, and the integration are effected through different and emerging disciplines/niche areas. The role of nurse scientists in approaching such endeavors with conviction cannot be undermined.¹¹

The nursing personnel thus play a prominent role in healthcare delivery and the recent evidences that have accumulated in the literature clearly point to the fact that the nursing professionals are major contributors to the evidence-based practice movement. The realization of evidence-based practice in healthcare settings, through the avenue of TR, acquires special significance. Despite the fact that the origins of evidence-based practice are firmly embedded in medicine, the nursing professionals could yet give a creditable account of themselves with respect to aligning practice with the point-of-care set-up. Hence, nurse scientists are well positioned to don the leadership role in the field of translational science in the years to come.¹²

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