

Invited Editorial

Highlighting the year's most transformative research as voted by the editorial board: Exploring knowledge gaps and research needs in respiratory therapy

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The Canadian respiratory therapy (RT) profession is experiencing a transformative era marked by an increasing commitment to evidence-based practices and scholarly contributions. Among this year's most pivotal publications is the study titled "Exploring Knowledge Gaps and Research Needs in Respiratory Therapy" by Zaccagnini et al.¹ This work exemplifies the critical alignment between identifying professional knowledge gaps and shaping the future of RT practice through targeted research.

This study highlights four key themes that underpin the knowledge deficits in respiratory therapy: (1) system-level impact of RTs, (2) optimization of RT practices, (3) scholarship and academic contributions, and (4) advancements in RT education. By employing qualitative methods with focus groups of expert RTs across Canada, the research provides an exploration of practice-oriented gaps and research priorities. Such findings are not only foundational for improving care but also imperative for the profession's growth. For instance, understanding the system-level impact of RTs can lead to policies that amplify the profession's contributions to multidisciplinary care. Meanwhile, optimizing practices and fostering education ensures RTs remain at the forefront of emerging healthcare challenges.

Canadian RTs are increasingly expected to interpret, evaluate, and contribute to evidence-based care. Yet, the reliance on research from adjacent professions often results in guidance that lacks specificity for RT applications. This study underscores the urgent need for research tailored to RT-specific challenges, such as innovations in ventilator management, non-invasive respiratory techniques, and strategies to address professional shortages. The identified focus on advancing RT education resonates deeply within the profession. Creating robust educational frameworks can help standardize and elevate the entry-to-practice competencies for RTs, positioning them as integral contributors to the healthcare system.

In the U.S., RT-driven research has led to the development of therapist-driven protocols (TDPs), empowering respiratory therapists to make autonomous clinical deci-

sions, thereby improving patient outcomes and operational efficiency.² Additionally, the introduction of the Advanced Practice Respiratory Therapist (APRT) role, supported by dedicated educational programs, has expanded the scope of RT practice. APRTs are trained to provide diagnostic and therapeutic services across various settings, enhancing the quality of cardiopulmonary patient care.³ In the UK, RT research has focused on integrating advanced diagnostic tools, such as thoracic ultrasound (TUS), into clinical practice. Studies have explored the adoption of TUS by physiotherapists and respiratory therapists, highlighting its potential to improve patient assessment and management. This integration has led to more accurate diagnoses and tailored treatment plans, ultimately enhancing patient outcomes.⁴ Internationally, RT research has facilitated the adoption of simulation-based education, improving training outcomes and patient safety. This approach has been particularly beneficial in preparing therapists for complex clinical scenarios, thereby enhancing the overall quality of respiratory care.⁵

This publication sets a clear agenda for future research in RT. Its implications are twofold: first, it validates the need for RT-specific investigations to address nuanced clinical and educational challenges. Second, it inspires RTs to actively engage in scholarly endeavours, thereby expanding the evidence base for their practice. As the profession evolves, leveraging the insights from studies like this will ensure that Canadian RTs continue to deliver exceptional patient care while advancing their academic and professional identity.

The findings by Zaccagnini et al. are a call to action for all stakeholders in respiratory therapy—practitioners, educators, and policymakers alike. By embracing this research, the RT community can take decisive steps toward addressing existing gaps and elevating the profession to new heights. This study exemplifies the potential of RT-specific scholarship. It serves as a model for how qualitative research can shape practice and policy.

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