

HEALTH CLINICIAN-SCIENTISTS IN ACADEMIC HEALTH SCIENCE CENTRES: PROTECTING AN ENDANGERED SPECIES



Executive Summary

Acknowledgements and Symposium Organizers

The national symposium “Health Clinician-Scientists in Academic Health Science Centres: Protecting an Endangered Species” was organized by The Hospital for Sick Children (SickKids) and the Canadian Child and Youth Health Coalition (CCYHC) with a meeting grant (MHD106026) from The Canadian Institutes for Health Research (CIHR). Symposium planning committee members included Dr. Bonnie Stevens, Gwen Burrows, Dr. Norman Rosenblum, Dr. Donald Mabbott, Dr. Karen Gordon, and Shirine Riahi from SickKids, and Dr. Stephanie Atkinson from McMaster University.

Background

The symposium took place on Friday, November 27, 2010 in Toronto. The symposium goal was to address the challenge of creating sustainable and stable career paths for health clinician-scientists in academic health science centres by: (a) sharing experiences and lessons learned; (b) strategizing on ways to demonstrate role value, establish sustainable funding models, and integrate research into health care delivery models; and (c) building partnerships to establish a national agenda. The symposium was based on the premise that to be successful, health clinician-scientists require Ph.D. level research skills in methodologies related to their specific research domain, post-doctoral research training, and protected time for research -- minimally 50% and optimally 70-80%. Fifty-five participants including leadership from government, universities, philanthropy, granting agencies, and adult and pediatric academic health science centres across Canada attended the day-long event. A national dialogue was initiated at the symposium that addressed the challenge of creating sustainable and stable career paths for “non-physician” health clinician-scientists.

Keynote Address

The symposium began with a keynote address by Michael Kramer, Scientific Director for the CIHR Institute of Human Development, Child and Youth Health (IHDCYH), highlighting the improvements in Canadian performance, relative to global indicators in the area of clinical research, after a decade of increased funding in the categories of grants, salaries, and training. CIHR offers clinician-scientist awards (i.e., training and faculty-level support) for physicians and dentists, but the program has had difficulty attracting these health professionals due to financial disincentives and inadequate role models. At present the clinician-scientist awards program excludes non-physician clinician-scientists, but there is greater recognition of the need for a critical mass of health professional clinician-scientists. Dr. Kramer shared potential solutions from CIHR to enhance support for clinician-scientists, including the new *CIHR Strategy on Patient Oriented Research (SPOR)* and increases in:

- health clinician-scientist awards
- support for randomized control trials
- theme-based networks
- infrastructure (including personnel)
- research budgets

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Dr. Kramer asked the audience about their ideas for practice and policy change solutions, and how to build on local clinician-scientist funding models to have a broader impact.

Panel Discussions

The first panel discussion explored the experience of current health-clinician scientists.

Four health clinician-scientists from academic health science centres across Canada, including Dr. Lynn Breau (Psychologist, Halifax), Dr. Liisa Holsti (Occupational Therapist, Vancouver), Dr. Deborah O'Connor (Registered Dietician, Toronto), and Dr. Robert Schroth (Dentist, Winnipeg) shared their personal insights on: (a) the value and impact of their role in their respective academic health science centres, (b) how their role is supported and their multiple accountabilities, and (c) barriers and facilitators to their research practice. This panel was facilitated by Dr. Norman Rosenblum, Principal Investigator of the Canadian Child Health Clinician-Scientist Program (CCHCSP), and Pediatric Nephrologist and Senior Scientist at The Hospital for Sick Children.

The panellists conveyed how health clinician-scientists serve as the keystone between basic and clinical science, and the risks inherent in eliminating health professional clinician-scientist positions in academic health science centres. They described their struggle to find a home at academic health science centres and/or universities that provides secure career paths and stable funding to conduct clinical research. Funding for their positions is usually short-term and piecemeal from a variety of sources such as hospital operational budgets, hospital foundation support, academic appointments, and grants and awards. They lack a standardized role description that sets boundaries on their professional performance expectations and unifies their professional accountabilities to their multiple funders and professional regulatory bodies.

In the second panel discussion, six leaders (including the panel facilitator, Dr. Stephanie Atkinson) discussed their professional experiences with different health clinician-scientist funding models (i.e., academic, hospital, granting agency, and charitable/philanthropic models).

Dr. Dorothy Pringle, former Dean and Professor Emerita at the Faculty of Nursing, University of Toronto shared the history of nurse scientist models over the past three decades. Dr. Pringle highlighted the difficulty of retaining these positions in hospitals, where the nurse scientist often worked in isolation, versus losing them to universities where there is an ongoing need for academics and the lure of more secure tenure track career paths.

Linda Piazza, Director of Research and Health Policy at the Heart and Stroke Foundation (HSF) of Canada, talked about the gaps in grant and award support from health charities for novice and mid-career health clinician-scientists noting there is more support for research projects than personal awards. The emphasis on high-impact publications in open competitions deters novice health clinician-scientists from competing and an emphasis on early career support overlooks the need for mid-career support.

Dr. Mary Ferguson-Paré, Vice-President, Professional Affairs and Chief Nurse Executive at the University Health Network (UHN) in Toronto, described how the UHN has created a stronger research culture over the past 9 years, including raising research funds to create more nurse clinician-scientist positions (i.e., securing 50% protected research time for all in-house PhD prepared Advanced Practice Nurses).

Dr. Martin Ferguson-Pell, Professor and Dean of the Faculty of Rehabilitation Medicine at the University of Alberta in Edmonton, described the integrated clinical-research model in the United Kingdom and how he has applied that philosophy to create more integrated clinician-scientist practice models for occupational therapists,

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physiotherapists, and speech language pathologists at The University of Alberta. In the UK, academic and clinical facilities are co-located, there is a centralized funding model, and research is part of the health care delivery culture. In an effort to allow rehabilitation clinician-scientists at The University of Alberta more time for research and practice in the clinical setting, Dr. Ferguson-Pell has alleviated their heavy teaching loads by re-allocating funds to hire clinical teachers in dedicated teaching roles.

Dr. Judith Ritchie, Associate Director for Nursing Research at the McGill University Health Centre, shared funding models composed of varying ratios of joint salary support from the hospital operating budget, hospital foundation, and university. These have been successfully used to support nurse scientists at McGill University Health Centre in Montreal.

Dr. Stephanie Atkinson, Professor and Associate Chair, Research in the Department of Pediatrics, McMaster University, outlined current Canadian Child Health Clinician-Scientists Program (CCHCSP) training awards for health clinician-scientists.

Strategy Session: Identifying Strategies and Priorities

Following the panel discussions, participants worked in four small groups to generate their ideal funding model(s) for health clinician-scientists working in academic health science centres, and 2 or 3 strategies to achieve their models. Themes that emerged from the strategy session included:

- a nationally recognized definition for the health clinician-scientist role is needed
- creation of more health clinician-scientist roles based in clinical settings
- sustained and partnered funding models (e.g., salaried positions funded through hospital operating budgets and joint academic appointments)
- matched funding from hospitals for research and training awards, or agreement to support additional years post- award funding (i.e., build follow-up funding into CIHR and other granting agency mandates)
- leadership at the senior executive level (or regional level for provincial health authorities) to champion the clinician-scientist role in all disciplines
- incorporation of the role into the hospital accreditation agenda
- health clinician-scientist recruitment based on strategic alignment with institutional priorities
- enhanced communication to better link roles and qualified individuals

Next Steps

In the short-term, a full event report will be distributed to symposium participants and other identified stakeholders. In the long-term, symposium organizers plan to develop and publish a position paper/commentary after undertaking further “consensus” work with the symposium participants.

Symposium Key Concepts

1. Health clinician-scientists are critical contributors to the health care system because they: (a) strategically design and evaluate practical, clinically-based treatments for the most pressing patient health issues; (b) enhance the translation of basic scientific discoveries to the bedside; (c) have credibility as research and clinical experts in their field, and can thereby influence policy and clinical decision-makers; and (d) enable better patient access to cutting edge treatments.
2. New models for continuous funding of health clinician-scientist roles are required, including better partnerships and greater alignment of role definitions between academic health science centres, government, universities, and professional regulatory bodies.
3. Job descriptions for health clinician-scientists should clearly articulate the allocation of time for clinical practice, research, and teaching duties and form the basis for unified performance evaluations and tenure considerations in situations involving multiple reporting structures.
4. Leadership must support the health clinician-scientist role and the incorporation of clinical research values into the organizational culture.
5. Efforts should be made to quantify the impact of health clinician-scientists and set benchmarks, as a means to (a) demonstrate to leadership and stakeholders the value of the role through data and standards, and (b) determine the ideal or critical mass of health clinician-scientists.
6. Formal opportunities for health clinician-scientist training, as well as institutional efforts to integrate new health clinician-scientists into teams or introduce them to internal clinical and research collaborators, are important to address the issues of workplace isolation and the need for role models and mentorship.