

**PROMOTING COLLABORATION BETWEEN HEALTH SCIENCE  
DISCIPLINES AT THE UNIVERSITY OF ALBERTA, CANADA  
PROMOVENDO A COLABORAÇÃO DAS DISCIPLINAS DAS CIÊNCIAS DA SAÚDE NA  
UNIVERSIDADE DE ALBERTA, CANADÁ  
PROMOVIENDO LA COLABORACIÓN DE LAS DISCIPLINAS DE LAS CIENCIAS DE LA SALUD EN LA  
UNIVERSIDAD DE ALBERTA, CANADÁ**

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**KEYWORDS:** Patient care team.  
Health. Education.

**ABSTRACT:** Interdisciplinary education, research and practice, improves health care, scholarly productivity, professionals career opportunities and patients/clients and health professionals satisfaction with care and work, respectively. However, it can engender disinterest, suspicion and antagonism if it is not adequately resourced. Adequate resourcing requires both highly visible commitment from the key leaders in universities and health services and separate, realistic budgets to support initiatives. In addition, and to ensure that the specialist contribution of all health disciplines to human well-being is fostered the practice, research and education of specialist disciplines must also be adequately supported. This is what the Health Sciences Council at the University of Alberta since its inception - tried to do. That it has been successful is reflected in its recognition as national leader in interdisciplinarity in health education and research in Canada.

**PALAVRAS-CHAVE:** Equipe de assistência ao paciente. Saúde. Educação.

**RESUMO:** A educação interdisciplinar, a pesquisa e a assistência melhoram o cuidado à saúde, a produtividade, a produção acadêmica, as oportunidades de carreira para o trabalhador de saúde e a satisfação sobre o cuidado e o trabalho por parte dos profissionais de saúde e dos pacientes/clientes, embora possam também promover desinteresse, suspeitas e antagonismo, se não existirem recursos suficientes para tais fins. Ter recursos suficientes significa tanto um compromisso altamente visível pela liderança das universidades e dos serviços de saúde quanto orçamentos independentes e realistas para apoiar as iniciativas aprovadas. Para garantir que a contribuição do especialista em todas as disciplinas de saúde para o bem-estar humano seja nutrida na prática, é necessário apoiar de forma adequada a pesquisa e a educação das disciplinas do especialista na saúde. É justamente isto que o Conselho das Ciências de Saúde da Universidade de Alberta tem procurado fazer desde seu princípio. A medida de seu sucesso se encontra no seu reconhecimento, no Canadá, como líder mundial na educação interdisciplinar e pesquisa interdisciplinar na saúde.

**PALABRAS CLAVE:** Grupo de atención al paciente. Salud. Educación.

**RESUMEN:** La educación interdisciplinar, la investigación y la asistencia influyen en la mejoría del área de la salud, así como, en la producción académica, en las oportunidades de la carrera para el trabajador de la salud y en la satisfacción sobre el cuidado y el trabajo por parte de los profesionales de la salud y de los pacientes y/o clientes. Sin embargo, ésta puede también, promover el desinterés y antagonismos si no hubieran los suficientes recursos para tales fines. Tener recursos suficientes significa tanto, un compromiso altamente visible por el liderazgo de las universidades y de los servicios de la salud cuanto, los presupuestos independientes y realistas para apoyar las iniciativas aprobadas. Para garantizar que la contribución del especialista en todas las disciplinas de la salud para el bienestar del ser humano sea nutrida en la práctica, se necesita apoyar de manera adecuada a la investigación y la educación de las disciplinas de los especialistas en el área de la salud. Justamente, es esto que el Consejo de las Ciencias de la Salud de la Universidad de Alberta procuró hacer desde un inicio. El éxito de esto está en la medida en que se reconoce que el Canadá se considera como un líder mundial en la educación y en la investigación interdisciplinaria para la salud.

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## INTRODUCTION

For well over two decades national and provincial governments and health care policy brokers have been recommending interdisciplinary education, research and practice. The World Health Organization (WHO)<sup>1</sup> is exemplary in this respect; since 1978 it has explicitly endorsed interdisciplinary education and practice. The reason for this drive to interdisciplinarity is the nature of health care in contemporary society which, in turn, is fuelled by expanding communication systems, global networking, and diversity of providers and consumers.<sup>2</sup> In addition, and relatedly, the drive to include the patient/client as a partner in care has the potential to change radically the traditional role of health professionals from all-knowing expert to listener, teacher and guide who works collaboratively with the patient/client.<sup>3</sup> Effective health care in contemporary society, therefore, involves multiple disciplines that must communicate effectively with one another to provide care of high quality to consumers.<sup>4</sup> This paper describes one Canadian initiative, the establishment of the Health Sciences Council at the University of Alberta, which seeks to foster and support interdisciplinarity in health care education and research. It describes the structure which supports interdisciplinarity and the activities undertaken within this structure. The paper begins, however, by clarifying terminology and outlining the benefits and disbenefits of interdisciplinary education and practice particularly as these relate to Nursing. The Health Sciences Council at the University of Alberta is working assiduously and strategically to obviate the disbenefits identified with interdisciplinary initiatives in order to realize the substantial benefits they offer.

## CLARIFYING TERMINOLOGY

"Many terms are used to refer to aspects of knowledge production in research and scholarship, knowledge application in practice, and/or knowledge conveyance in education that involve multiple disciplines working together in a model that is more collaborative than that which generally obtains today".<sup>4,275</sup> Such terms include transdisciplinary, interprofessional and transprofessional but interdisciplinary and multidisciplinary appear to be used most commonly. In this paper I restrict usage to interdisciplinary and interprofessional which refers to "knowledge, collaboration and education that involves multiple disciplines or professions, working with mutually understood and accepted beliefs and values towards shared goals. I avoid the use of the term

multidisciplinary because it often refers to arrangements across disciplines that group students and professionals together to reduce teacher workload and/or reduce costs".<sup>4,275</sup>

## THE BENEFITS OF INTERDISCIPLINARY EDUCATION, RESEARCH AND PRACTICE

The benefits of interdisciplinary education, research and practice accrue directly to patient/clients, to health care professionals and to health care organizations.

- 1) Benefits to patients/clients
  - improved patient outcomes;
  - lower mortality;
  - increased patient satisfaction (enhanced feelings of security, importance, and being cared for).<sup>5</sup>
- 2) Benefits to health professionals
  - increased job satisfaction;
  - improved RN retention;
  - increased RN involvement in decision-making;
  - decreased burnout;
  - improved career potential and career mobility;
  - increased professional growth;
  - cross-disciplinary peer review and critique of practice and research.<sup>6</sup>
- 3) Benefits to health care organizations
  - improved cost effectiveness of care;
  - improved distribution of resources;
  - improved productivity of collaborators;
  - more knowledgeable practitioners;
  - increased funding for practice and research;
  - acceleration of innovation in health care due to cross fertilization of creative ideas.<sup>7-12</sup>

## PROBLEMS ASSOCIATED WITH INTERDISCIPLINARY EDUCATION, RESEARCH AND PRACTICE

Of course the benefits noted above can be comprised by identifiable individual, professional and organizational factors. These include:

- faculty bias towards own profession's seniority

- lack of administrative commitment;
- lack of faculty skill in team approach;
- lack of faculty interest;
- lack of experience in shared and equal recognition between disciplines;
- faculty workload, tenure concerns;
- professional posturing regarding provider functions;
- fear of own discipline being subsumed and another emerging as leader;
- lack of motivation, interest and/or resources at program level.<sup>13</sup>

### **THE HEALTH SCIENCES COUNCIL (HSC) AT THE UNIVERSITY OF ALBERTA (U OF A)\***

The HSC was established in 1995 at the U of A specifically to enhance collaboration and interaction between the six Faculties which comprise it to increase the effectiveness and efficiency of health science education and to promote leadership in the development of interdisciplinary research and in the formulation of public health policy. The six Faculties represented on HSC are Nursing, Medicine, Pharmacy, Rehabilitation Medicine, Physical Education and Recreation, Agriculture and Forestry and Home Economics. These collaborate on a range of teaching and research initiatives whilst retaining their own Faculty status and our discipline-specific undergraduate and graduate programs.<sup>14</sup>

The terms of reference for the HSC are to:<sup>15</sup>

- undertake interdisciplinary cooperative efforts in teaching with the aim of promoting interdisciplinary teamwork among students and faculty, and maximizing efficiencies in course offerings;
- promote the development of interdisciplinary research in health sciences;
- coordinate and promote development of a university-wide focus on health promotion;
- enhance coordination among the health science faculties;
- provide a forum for discussion of issues related to health and health care with the aim of

developing a University of Alberta position on these issues as appropriate;

- establish and promote centres related to interdisciplinary research, graduate education and community service in the health sciences;
- ensure effective communication and cost effective programs among the health science faculties.

The HSC has a key leadership role in interdisciplinary initiatives. It is led by a Vice-Provost, who reports directly to the Provost of the University. The Council is a leader in spearheading interdisciplinary activity by pulling together research teams, pushing the current limits of interdisciplinary education and exploring new and better options for training students in team environments. The Council has been the champion for interdisciplinary activities in health at the University of Alberta since the early 1990's and continues to push current boundaries in research and education.

The six health sciences Deans, the Associate Vice President Research, and representatives of Capital Health (the regional health service provider) constitute the Health Sciences Council. This interdisciplinary decision making council leads to strategies that are supported at the highest level. Each Dean makes a commitment to the mandate and the innovations of the Health Sciences Council and then participates in the implementation of the interdisciplinary initiatives in, and the participation of, their respective Faculties. In this model the regional health authority also participates from the beginning in interdisciplinary activities and works along side the University to implement unique education, research and service programs. In a reciprocal manner, the Vice-Provost - Health Sciences sits on the Executive Committee of Capital Health, and is responsible for building campus support of regional health service initiatives.

The Council has a dedicated budget and staff with which to advance interdisciplinary activities. Commitment from all health science Faculties and the University's central administration are also essential components of the advancement of the initiatives of the Health Sciences Council. The Council provides an infrastructure for the development and sustainability of five interdisciplinary Centres, (see below), each with a specific focus and mandate, as well as creative pro-

\* Much of the information on the Health Science Council (HSC) at the University of Alberta which follows is drawn from official HSC documentation and presentations by HSC staff to the Council.

cesses allowing them to function within a predominantly discipline-specific driven institution. Within the context of the Council, they have flourished. The Centres also have an educational mandate. For instance, the Centre for Health Promotion Studies has graduated over 100 masters level students.

The Health Sciences Council is the only entity of its kind in Canada. It has been instrumental in developing and sustaining interdisciplinary health research and education at the University of Alberta. The Council and its Centres have seen significant funding from the Tri-Council, the Alberta Heritage Foundation for Medical Research and many other granting agencies, demonstrating their broad interdisciplinary success. Centre research funding has brought in over \$25 million. Another major accomplishment in 2000 was receiving the prestigious Blizzard Award from the Society for Teaching and Learning in Higher Education, given in recognition of the collaborative efforts of all the health sciences disciplines involved in the planning and innovative delivery of our core interdisciplinary course, INT D 410.

The key to developing a solid interdisciplinary structure or mandate rests on the ability of an institution to make it a priority and devote resources to its development. It is also important to bring people together from the different disciplines to ensure that they are aware of the work that the others are doing. The Health Sciences Council achieves this goal in an innovative way and is a national leader in promoting interdisciplinary research, education and community service. It has been named as a model of success by other Canadian institutions for its ability to bring together several disciplines on an ongoing basis.

## **HEALTH SCIENCES COUNCIL CENTRES AND INITIATIVES**

### **Centre for Health Promotion Studies (CHPS)**

CHPS is committed to interdisciplinary research and graduate education to advance knowledge and theory development, practice and policy in health promotion through community and academic partnerships. The Centre has a vital role in providing and promoting interdisciplinary graduate education that prepares graduates with the knowledge and skills needed to successfully engage in health promotion activities. It conducts and fosters interdisciplinary health promotion research in collaboration with other Alberta and national stakeholders; and it participates in communication, networking, and community outreach

activities that foster health promotion practice and policy development. CHPS takes pride in having the largest graduate program in health promotion, productive interdisciplinary and community-linked research programs, and as being one of the few centers with core funding from government.

### **John Dossetor Health Ethics Centre (JDHEC)**

JDHEC is an interdisciplinary group committed to work in the area of health ethics. Through partnership and dialogue, they promote professional and public reflection, debate and research on matters of ethical and moral concern in our healthcare facilities and in our community. They strive to develop an interdisciplinary centre of excellence in health care ethics research, education and service in order to advance ethical considerations in the delivery of health care and in the development of a sustainable, compassionate health care system for all Albertans. They do so by a non-sectarian approach toward focused research and publication of specific ethical issues and excellence in health ethics education for students, faculty and staff at the University of Alberta, members of Capital Health, other care agencies and the general public.

### **Alberta Centre on Aging (ACA)**

The Alberta Centre on Aging is an interdisciplinary U of A Centre with a mandate to promote excellence in research, education, and service in the field of aging. The Centre supports and undertakes research projects that advance health, well being, and positive lifestyles in later life.

### **Community-University Partnership for the Study of Children, Youth and Families (CUP)**

The Community-University Partnership for the Study of Children, Youth, and Families is dedicated to reducing the gap between university research and practices in the community, thus improving the health and well-being of children and families. The Partnership consists of people from local communities and from the University of Alberta. It is committed to promoting reciprocal, sustained, and mutually beneficial interactions among researchers, practitioners, policy makers, and families to better understand and enhance the development of children, youth, and families, and ultimately to create new understanding, new approaches and improved programs and services for child and family development.

## **Alberta Institute for Human Nutrition**

The Alberta Institute for Human Nutrition (AIHN), a network of committed interdisciplinary researchers is committed to integrating existing and newly-recruited international class expertise in a variety of disciplines: 1) to gain a better understanding of specific changes in body composition associated with increased mortality and morbidity; 2) to accelerate fundamental discovery in aspects of human nutrition and devise, test and implement innovative nutrition strategies and treatments to support maintenance of healthy lifestyles; and 3) to take a leadership role in preparing graduates with the knowledge, training and skills to pursue innovations in nutrition and weight-related disorders and provide opportunities for professional development and training for health professionals.

## **InterProfessional Initiative (IPI)**

IPI is an interdisciplinary educational/research initiative under the auspices of the HSC. It has three key components; INT D 410: Interdisciplinary Health Team Development, INT D 411: Interprofessional Health Team Placements, and the Certificate in Interprofessional Health Team Development. The INT D 410 course, which is a mandatory course in each discipline's undergraduate curriculum, now enrolls 800 + students, is taught by faculty from all the health science disciplines and by professionals from the health field, and uses a small group problem based learning approach. As a follow up to this course some students may also enroll in the interdisciplinary team placement which places a team of students into various community settings within Alberta.

The goal of this IPI program is to educate health science students about the important role that health teams have in healthcare delivery and to provide interprofessional learning experiences to health sciences students so that the graduates of the University of Alberta provide exemplary behaviour, as health team members, in the provision of health services and in health promotion.

## **PROPOSED CENTRES AND INITIATIVES**

### **Centre for Health Outcomes Research (CHOR)**

The CHOR is a proposed Centre to build capacity for a unique team that partners researchers from various disciplines at the U of A with clinical

and administrative decision makers at Capital Health. This team is poised to conduct highly innovative research in health outcomes that bridges theory and practice in all stages of research, not just at the point of disseminating or the uptake of results. The team is seeking funding for three major areas of effort; accomplishing interdisciplinary and cross-jurisdictional research, providing enhanced training environments, and fostering knowledge translation among decision makers and researchers.

## **Primary Health Care Initiative**

Primary health care has risen in priority for many institutions and health regions, both as a way to deliver health care and in how the health professions are taught. This is a result of a meeting in September 2004 of Canadian Federal, Provincial and Territorial First Ministers aimed to develop a ten-year plan to strengthen health care. Progress has been made to meet the objective of providing access to interdisciplinary teams for 50% of Canadians by 2011. In Alberta, for example, a strategy to implement a Primary Care Network is currently being implemented across the province. To support these governmental initiatives the Health Sciences Council has determined to progress this primary health care agenda, through both research and education. To this end, grant proposals have been submitted and several meetings have taken place to address issues related to primary health care and develop strategies to consolidate efforts in the future.

## **THE CHALLENGE OF INTERDISCIPLINARY TO NASCENT DISCIPLINES**

The challenges which "nascent disciplines" like nursing and social work<sup>4,277</sup> face in interdisciplinary initiatives are particularly acute and must be addressed. The contribution of such disciplines to human welfare is being increasingly recognized as a result of scholarly productivity and practice yet, as Cody<sup>4</sup> reminds us, their potential to contribute to human well-being has yet to be realized. This contribution, both mental and potential therefore must be protected and nursing scholarship (along with the scholarships of other health disciplines) supported with the same commitment as interdisciplinary scholarship and practice. In addition, without strong unidisciplinary bases, the real benefits of interdisciplinary health practice will not be realized because differential power bases will bias decision-making (as, of course, they currently do). This is why the HSC at the U of A is provided with its own budget and competes for grants

as an interdisciplinary body. The Faculties that are represented on HSC continue to be funded separately for their own disciplinary activities and scholarships.

## CONCLUSION

Developing common curricula for the training of health professionals is, as already noted above, often challenging and progressing to implementation across the various disciplines can be an even greater challenge. This is a result of usually attempting implementation when curricula for each discipline are in place and the hurdles of scheduling, accreditation, clinical and field placement and the development of competencies required for each profession's workforce often prove insurmountable. While the simplest way would seem to be to start anew with common curriculum development across an institution's health professional schools at the same time, this is frequently not possible.

An alternative,<sup>16</sup> is for professional schools to agree on common content that should be incorporated into each curriculum at the pre-registration or licensure level to develop the skills and knowledge for each individual professional role and for practicing in interprofessional teams, e.g. communication, health and physical assessment, counseling, critical thinking and problem solving. Courses within the respective discipline would then build the strong disciplinary base which is necessary both for practice and for making an effective contribution to an interprofessional team.

Progress can also be made towards interdisciplinary education by two or more disciplines working together to develop courses in topics such as primary health care, health promotion, health systems and services, health policy, health ethics and global and intercultural health. The courses become a core in the curriculum for the schools that have developed them but can also be offered as interdisciplinary courses in which students from all health disciplines can enroll. This has been the approach adopted towards graduate curricula which are offered under the auspices of HSC special centres.

Thirdly, courses can be developed which focus on interprofessional team development and the delivery of health services to a community or to patients with common health problems. In this approach students can apply their critical thinking skills and learn to problem solve together, to appreciate the roles and contribution of each profession and to plan for the transfer of their collective knowledge and skill into practice. This was the approach HSC took to

develop its milestone INT D 410 course. In addition, it is very important to provide opportunities for the team placement of students in practice settings where they will see collaborative practice and delivery of services by a 'team role model'. The Interprofessional Team Placement course (see above) at the University of Alberta, while accounting for only a small student enrolment to date, is one example of such an endeavour.

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