The Tobacco Control Community of Tomorrow

A Vision for Training

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ABSTRACT

Objective: Current and emerging public health challenges require a new approach to research training. The purpose of the CIHR-Strategic Training Program in Tobacco Research (STPTR) is to equip the next generation of scientific leaders with the knowledge, skills and experiences that will enhance their ability to conduct tobacco research that will have a positive impact on the health of the population.

Participants: Graduate students or post-doctoral fellows from any university in Canada who are working with a STPTR Mentor in the broad area of tobacco control.

Setting: Mentors at three universities: University of British Columbia, University of Toronto, and University of Waterloo.

Intervention: The STPTR currently has four elements: a video course linking STPTR trainees and mentors across universities; an annual meeting; stipend awards that free CIHR STPTR fellows to concentrate on research; and personal, cross-disciplinary research mentoring.

Outcomes: Feedback solicited from current and past trainees at the three-year point of the program suggests that there are four key value-added benefits associated with being a trainee in the STPTR: transdisciplinary connectedness, community building, capacity building, and exposure.

Conclusion: Feedback from trainees at different stages in their training experience, different academic institutions, and different academic disciplines will inform the ongoing framing of the STPTR and may inform future training programs in other disciplines of chronic disease prevention, health promotion, and the emerging science of population-level intervention.

MeSH terms: Tobacco; education; mentors; behavioral disciplines and activities; prevention and control

La traduction du résumé se trouve à la fin de l'article.

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Current and emerging public health challenges require that future researchers be able to think and work beyond the bounds of their home discipline and in collaboration with practitioners and policy-makers. For instance, provincial, national and international cancer control agencies recognize that future planning and intervention activities will require coordination to apply research to practice and policy decisions, a focus on populations and public health with links between fundamental and applied research, and interdisciplinary integration of the biological, behavioural, social, and other population sciences.¹ In order to develop the next generation of researchers with the skills required to navigate this type of research and practice landscape, it is critical to provide a transdisciplinary and collaborative training environment.² In response, the Canadian Institutes for Health Research (CIHR) has developed the Strategic Training Initiative in Health Research (STIHR).

The purpose of the CIHR STIHR program is to build capacity within Canada's health research community through the training and development of researchers.³ The program intends to encourage transdisciplinary, integrative health research – in part through the training of the next generation of researchers – and to increase the capacity of Canada's health research enterprise to address important research questions in the four themes of health research: biomedical; clinical; respecting health systems and services; and the health of populations, the societal and cultural dimensions of health and environmental influences on health. Each funded training program consists of a group of mentors/educators who work collaboratively to offer a research training program of defined format and content to a group of trainees.

Since the inception of the CIHR STIHR program in 2002, there have been 86 training programs funded (51 in 2002, 35 in 2003). One of the programs funded in 2002, the CIHR-Strategic Training Program in Tobacco Research (STPTR),⁴ provides an excellent example of a transdisciplinary and collaborative training environment. The CIHR STPTR has a distinctive focus on transdisciplinary training provided by outstanding mentors who span a broad range of academic disciplines and departments from universities and research centres across Canada. The STPTR has only been available for three years, so evaluation results of the outcome of the program are not yet available. However, this manuscript pro-

vides mid-program feedback and insight about the STPTR from the perspective of past and current program trainees.

PARTICIPANTS, SETTING AND INTERVENTION

Participants

The STPTR is designed to provide training opportunities for graduate students or post-doctoral fellows from any university in Canada who are working with a STPTR Mentor in the broad area of tobacco control.

Setting

Program leadership is provided from Mentors at three universities: University of British Columbia; University of Toronto; and University of Waterloo. Since the inception of the program however, additional universities and research institutions are now represented as the number of STPTR Mentors continues to expand and develop: Centre for Addiction and Mental Health; BC Cancer Agency; Cancer Care Ontario; McGill University; University of Saskatchewan; McMaster University; Child and Family Research Institute; University of Western Ontario; University of Regina; University of Prince Edward Island; Université Laval; and University of Manitoba.

Intervention

The STPTR currently has four elements: a *video course* linking STPTR trainees and mentors across universities; an *annual meeting*; *stipend awards* that free CIHR STPTR fellows to concentrate on research; and personal, *cross-disciplinary research mentoring*. The video course is offered from the University of Toronto, but available at the University of Waterloo, McGill University, Lakehead University, and University of British Columbia. Only students working with STPTR Mentors (as supervisors or committee members) are eligible to participate in the national meetings or receive stipend awards. Normally, these students will be enrolled in programs or post-doctoral training experiences associated with Mentors' academic departments or research groups. In order to be eligible for the STPTR stipend, a student must be conducting, or planning to conduct, tobacco research and meet the following criteria: have at least two disciplines represented on their supervisory committee; have at least one STPTR Mentor working

with them as supervisor or committee member; be a full-time trainee during the tenure of the award; be enrolled, or planning to enroll in a graduate or post-doctoral program, or have arranged post-doctoral training (successful applicants must be enrolled in a program at the time funding is received); and, not accept benefits from the tobacco industry while holding the award.

OUTCOMES

The viewpoints expressed within this manuscript are a reflection of current and past STPTR trainees based on our experiences and from soliciting feedback on the experiences of our fellow trainees (solicited during an interactive session at the 4th National Conference on Tobacco or Health, Ottawa, ON, June 21, 2005). By combining the stories of different trainees, at different stages in their training experience, at different academic institutions, and in different academic disciplines, we hope this 'case study' of an innovative public health intervention stimulates further discussion about the place of student training in the broader chronic disease prevention and health promotion agenda.

As past and present trainees, we see the STPTR as a wise and vital investment for preparing and training the next generation of leaders in tobacco control, and potentially, the next leaders in chronic disease prevention. The Training Program provides a unique, enriching, collaborative, and supportive environment for trainees to learn and conduct research. This is accomplished through recruitment of trainees and mentors from a variety of institutions and academic disciplines, and providing the necessary resources to germinate a transdisciplinary research environment. Trainees are not only provided with key resources such as mentorship, research support, support for program planning, and funding, there is also involvement in an emerging community of practice – one that spans the basic sciences through to policy research and knowledge exchange. This interactive transdisciplinary engagement with fellow trainees and mentors has helped us to better understand diverse disciplinary perspectives, foster a sense of collaboration rather than competition, and appreciate the need to transfer research into practice. Within the STPTR, these skills are developed specific to tobacco control, however as we move forward in our careers, these skills

and lessons learned can be transferred to other aspects of chronic disease prevention (e.g., obesity). In addition, tobacco control is helping to drive the development of the emerging science of population-level intervention, and trainees in the program can gain the necessary skills related to population intervention concepts and methods.

There are four key value-added benefits that we associated with our training experiences. The first is *transdisciplinary connectedness* – the feeling of being privy to the broad range of knowledge and skills from the diversity of the mentors and trainees that is fostered at the annual STPTR meeting and exchange. The second is *community building* – being a part of the training program provides trainees with the opportunity to be a part of the broader tobacco control community and become involved in the greater agenda of tobacco control research. The third is *capacity building* – enabling trainees to share common elements of the training experience, linking trainees with researchers, decision-makers and potential employers, and providing the opportunity to develop skill-sets to advance their research or professional aspirations. The fourth value-added benefit is *exposure* – interaction with mentors, other trainees, decision-makers, potential colleagues, employers and supervisors, access to varied research opportunities, and early insight into emerging tobacco control research trends. Participation in the STPTR afforded the unique experience of being exposed to a variety of training opportunities beyond those offered in a typical academic training environment.

To gain a better sense of the value-added benefits for trainees, one must consider the following. Within the first three years of the STPTR (as of May 2005), there have been 57 student trainees; a total of 30 trainees have been awarded funding and 9 trainees have received funding more than once. These 30 funded students represent the diversity and the transdisciplinary nature of the program; 16 different mentors, 5 different Canadian academic institutions, 12 different academic departments or research centres, and 7 different disciplines. The trainees have been very productive: 38 peer-reviewed publications, 19 peer-reviewed manuscripts in press, 105 conference presentations, and additional academic activity (e.g., 5 trainees were contributing authors on Health Canada's 2002 Youth Smoking Survey Technical Report). The productivity associat-

ed with involvement in the STPTR not only provides valuable experience for trainees and mentors alike, it also offers an opportunity to strengthen a curriculum vitae, which makes a trainee more appealing in a competitive academic and employment market once they have completed their program.

DISCUSSION

There are many strengths and opportunities associated with involvement in the STPTR training program. Access to mentors and a community of leading scholars in the field, a peer group of trainee colleagues from other academic institutions and disciplines, and financial support (STPTR awards enable students to focus on their research and training experience) are the most obvious. Yet, engagement in this community of practice and building relationships among trainees and mentors also increase individual competencies and skills, and provide trainees with the opportunity to work collaboratively with more experienced experts or other trainees. The STPTR fosters networks and collaboration by bringing together the research community (trainees and mentors), and stakeholders (practitioners and decision-makers) at an annual meeting, providing the opportunity to generate ideas and linkages for developing programs in tobacco control, and research and policy questions. Other learning opportunities include a video conference course that brings trainees and mentors from across the country together in real-time to collaborate and learn about tobacco control.

Despite the many positive aspects of the STPTR, there are also challenges. Canadian geography hampers the ease of the multi-site program delivery (e.g., University of Waterloo and University of British Columbia collaboration), and prevents regular, face-to-face interaction among all trainees and mentors. Technological solutions have been incorporated to help overcome the geographical challenges (i.e., video conferencing of course and listserv), however they are not as ideal as face-to-face interaction. In addition, due to financial considerations, the membership for mentors and trainees is largely concentrated at three academic institutions (University of Waterloo, University of British Columbia, University of Toronto), which risks excluding interested participants from other institutions and may limit the number of opportunities provided to

trainees. Without a critical mass of mentors and trainees from a wide range of institutions and disciplines, the potential range of methods, theories, and practices that trainees can be exposed to will be limited.

CONCLUSION

Considerable momentum exists surrounding training and capacity building in public health, although there are few road-maps to guide the development of transdisciplinary student training programs, especially in a field as broad as tobacco control. However, the STPTR provides a model with potential to shape and build future training programs within the Canadian context. Structured training opportunities such as those provided through the STPTR can help to provide participants with the diverse skills, resources, experience, and partnerships required to confidently enter careers in tobacco control or in the broader field of chronic disease prevention and health promotion. Involvement can also provide trainees with distinct opportunities and linkages that would not likely have been available otherwise. Ongoing formal evaluation of the STPTR will be able to inform the ongoing improvement and development of this training platform.

The objectives of the STPTR are quite consistent with the broader goal of capacity enhancement in tobacco control research and

have considerable potential to complement additional training programs such as those sponsored by the Interdisciplinary Capacity Enhancement program. If the future of chronic disease prevention research rests in training innovative, collaborative, transdisciplinary researchers, it is important for funding agencies to maintain support for programs that champion transdisciplinary training environments for the future generation of researchers.

Individuals interested in learning more about the STPTR research training program and the opportunities it can provide should visit <http://www.ahs.uwaterloo.ca/cihr/training/>.

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RÉSUMÉ

Objectif : Les défis actuels et émergents de la santé publique exigent que l'on aborde autrement l'enseignement de la recherche. Le Programme stratégique de formation des IRSC en recherche sur le tabagisme (« le Programme ») vise à donner à la prochaine génération de leaders scientifiques un bagage de connaissances, de compétences et d'expérience qui améliorera leur capacité de mener des études sur le tabagisme ayant un impact positif sur la santé de la population.

Participants : Étudiants diplômés ou boursiers de recherches post-doctorales de n'importe quelle université du Canada, travaillant avec un mentor du Programme dans le domaine général de la lutte contre le tabagisme.

Lieu : Les mentors travaillent dans trois établissements d'enseignement : l'Université de la Colombie-Britannique, l'Université de Toronto et l'Université de Waterloo.

Intervention : Le Programme comporte actuellement quatre éléments : un cours sur vidéo qui relie les stagiaires et les mentors du Programme de plusieurs universités; une assemblée annuelle; l'octroi de bourses qui permettent aux boursiers du Programme des IRSC de se concentrer sur la recherche; et un encadrement individuel interdisciplinaire de la recherche.

Résultats : D'après les commentaires obtenus des stagiaires présents et passés après les trois premières années de participation au Programme, celui-ci procurerait quatre grands avantages : la connectivité interdisciplinaire, le développement d'une communauté virtuelle, le renforcement des capacités, et les contacts.

Conclusion : Les commentaires de stagiaires à différentes étapes de leur formation, de divers établissements d'enseignement et de diverses disciplines universitaires permettront d'améliorer la structure du Programme et, peut-être, les futurs programmes de formation dans d'autres disciplines (la prévention des maladies chroniques, la promotion de la santé et la nouvelle science des interventions axées sur la population).