**Dr. Gail McVey** is a Psychologist and Health Systems Research Scientist in the Community Health Systems Resource Group at The Hospital for Sick Children, Director of the Ontario Community Outreach Program for Eating Disorders and Associate Professor in the Dalla Lana School of Public Health at the University of Toronto.

**Dr. McVey's Program of Research:**

a) Overall Dr. McVey's research spans three areas a) discovery research related to the development of best practices in the prevention of eating disorders/disordered eating through community-based, clinically-sensitive, longitudinal research evaluated using randomized controlled trials, b) implementation research related to the uptake and sustainability of these best practices by relevant stakeholders in health, education and sport, and c) knowledge translation and exchange of best practices through professional development activities, mentoring of students/trainees and emerging scientists (e.g., clinicians), and policy influence (Ministries of Education, Health and Long Term Care, Health Promotion and Sport), and invited presentations at local, provincial, national and international peer-reviewed conferences.

b) Dr. McVey's research has identified that certain patterns of behaviour leave females (and increasingly males) at risk for seriously disrupted/abnormal eating which are easy to measure but difficult to change. She is working on intervening in the pattern of communication and the transmission of societal attitudes between parents and their children and between teachers (and other adult role models) and their students, all the while developing theoretically sound life skills interventions that disrupt patterns of risk that can lead to long term negative health consequences. In addition to helping prevent eating disorders, there is potential generalizability of the work to other risky behaviours.

c) Dr. McVey's community-based research program necessitates long term relationships with stakeholders who work with youth in locations where they naturally gather (e.g., schools and other community-based settings). She has long-standing active membership on a dozen or more community-based coalitions and committees, all of which bring richness, meaning, and feasibility to her research program. Research publications in this field are slow to develop, however, when published they usually have a significant impact on the field including practical impact on the community via policy and curriculum changes toward healthy outcomes. Examples include invitations to be a member of the Ontario Medical Officer's Report on Healthy Weights: Healthy Lifestyles; OPHEA's research advisory group for Living Schools (Comprehensive School Health approach to promote physical activity), he Canadian Association for School Health's Knowledge Translation Network and Communities of Practice, the planning/feedback committee for the revised Ontario Ministry of Education's Health and Physical Education Provincial Curriculum, and the Call to Action: Creating a Healthy School Nutrition Environment developed by the Ontario Society of Nutrition Professionals in Public Health School Nutrition Workgroup Steering Committee, to name a few.

d) Dr. McVey recently co-hosted national and international symposia with stakeholders from research, practice and policy to investigate ways to align prevention efforts across the fields of eating disorders and obesity, earning an award for most outstanding continuing education activity in psychiatry in Canada (academic) by the Joint Canadian Psychiatric Association and the Council of Psychiatric Continuing Education (together with colleagues Drs. Carol Adair,

Lindsay McLaren, Janet de Groot, Ron Plotnikoff, and Katherine Gray-Donald from the Universities of Calgary, Alberta and McGill). In addition to local, provincial, national and international recognition, Dr. McVey's program of research has earned her a 5-year Mid-Career Personnel Award from CIHR (Institute of Gender and Health) and the Ontario Women's Council (2005-2010) to carry out intervention studies in the prevention of disordered eating spanning across childhood, early adolescence, late adolescence and young adulthood. She is currently carrying out a program of research, with funding support from the Institute of Population and Public Health, CIHR, which involves the development, implementation and evaluation of a pilot professional development system designed to integrate the prevention of weight-related disorders and chronic diseases using a mental health promotion approach. This Ontario-based study is being carried out in partnership with multiple public health units across the province and investigators from Ontario and Alberta. Dr. McVey plans to share findings from this research with stakeholders from research, practice and policy from across Canada in her upcoming national prevention strategy meeting on November 17-18, 2011 to be held in Toronto with funding from CIHR- Institute of Health Service and Policy Research.

**May 1, 2011**

**Program of research underway: An Ontario-based collaborative professional development study.**

Obesity is recognized as a serious public health issue in Canada and other Western countries, and the trends and health consequences are well known (Reilly et al., 2003; Tremblay, Katzmarzyk & Willms, 2002; World Health Organization; WHO, 1997). Obesity increases the risk for chronic disease, including cardiovascular diseases, cancer, and diabetes, which are the leading causes of death and disability worldwide (WHO, 2001). The Public Health Agency of Canada recently released a report entitled "Curbing Childhood Obesity" which relays that childhood overweight /obesity rates have nearly doubled between 1978 and 2004 (15-26%)(Public Health Agency of Canada, 2010). These trends suggest that body weight-related health issues will present health policy and practice challenges for the next few decades (Adair, McVey et al., 2007). Not surprisingly, there is a call for a "sustained, multisectoral response" to this complex health issue

The intent of "healthy weight" messaging is to curb obesity by promoting the adoption of healthy lifestyles among children and families. Less is known about how these messages are being interpreted or translated into behavior change. There is some evidence suggesting that a significant portion of children might be misinterpreting healthy weight messaging to mean that they need to achieve the body of a runway model. For example, in a sample of Ontario children, as many as 30% of girls and 25% of boys between the ages of 10 and 14 years were engaging in restrictive dieting to lose weight despite being within a healthy weight range (McVey, Tweed & Blakemore, 2004; 2005). Restrictive dieting is linked to binge eating, weight gain and other forms of unhealthy eating (Field et al., 2003; Neumark-Sztainer, Hannan, Perry, & Irving, 2002; Tanofsky-Kraff et al., 2009) that in turn pose further risk for overweight/obesity and are associated with mental health challenges such as depression, anxiety disorders, and substance abuse (Gadalla & Piran, 2007; Piran & Gadalla, 2006; Seeley, Stice, & Rohde, 2009; Stice, Shaw, & Marti, 2007). Another controversy within the field of weight-related disorders is that discourses about nutrition and healthy weights are often plagued with personal biases about nutrition, personal interpretations of healthy eating, and personal opinions and myths about the causes of weight–related disorders (individual responsibility vs. social and economic factors). Given the cultural norms around thinness and beauty, it is perhaps not surprising to learn that weight bias is present among health professionals, educators, and parents (Latner et al., 2007; O'Brien, Hunter & Banks, 2007). This might explain why children as young as 3 years old already demonstrate this bias (Cramer & Steinwert, 1998). *If our biases and messaging are making children weight-preoccupied and anxious or depressed at younger ages, are we creating a more burdensome and expensive public health problem then obesity*

*itself?*

Experts in the study of weight bias describe that overweight/obese youth are not likely to be spared the negative consequences of prejudice without changes to the larger societal factors that reinforce weight stigma (Brownell et al., 2009). With this in mind, Dr. McVey and community collaborators from Ontario conducted a pilot study designed to reach out to health professionals who work in the area of healthy lifestyles and identify effective ways to increase weight bias awareness to optimize their delivery of non-stigmatizing and equitable health promotion. An interdisciplinary team of researchers and knowledge users from public health and provincial organizations such as OPHEA, led by Dr. McVey at the Hospital for Sick Children, collaborated to plan, develop, implement, and evaluate a profesional development model entitled LENS (**L**everaging **E**quitable **N**on-**S**tigmatizing health promotion delivery) (McVey, Walker, Russell-Mayhew, Beyers, Simkins, Scythes, Cowie-Bonne, Westland & Murkin, 2010).

This pilot and feasibility study addressed the following research questions: (1) Following the group-based professional development training, are there changes compared to baseline in the participants' (a) awareness and internalization of media stereotypes, b) body satisfaction, (c) weight bias attitudes, and d) self-efficacy to address weight bias? Preliminary findings reveal the following:

- A repeated measures ANOVA indicated a statistically significant difference in means on body satisfaction from pre-workshop to 6-week follow-up ($F(2, 198) = 16.840$, $p < .001$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a statistically *significant* increase in body satisfaction between the beginning and the completion of the day-long workshop (19.73 ± 4.76 *vs.* 20.93 ± 4.53). There was no further increase in body satisfaction 6 weeks later ($P = 1.00$), which is not surprising since there was no follow-up intervention conducted during this post-workshop time period (an area for future study).
- Similarly, a repeated measures ANOVA with Greenhouse-Geisser correction indicated a statistically significant difference in means on the internalization of attitudes scale from pre-workshop to 6-week follow-up ($F(1.864, 220) = 37.611$, $p < .001$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a significant decrease in internalization (13.98 ± 5.15 *vs.* 11.49 ± 4.62), and that internalization continued to increase slightly, though not significantly again over the 6 weeks following the training ($P=.186$).
- A MANOVA for the three subscales of Crandall's anti-fat attitudes questionnaire was conducted and showed overall significance in change over time ($F(6,420) = 22.136$, $p < .001$). Univariate findings were as follows. *Dislike*: Findings for the *dislike* subscale also showed a significant difference in total scores from pre-workshop to 6 week- follow-up with a repeated measures ANOVA with Greenhouse-Geisser correction ($F(1.875, 212) = 6.421$, $p < .05$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a significant decrease in *dislike of fat* (.972 ± 1.01 *vs.* .757 ± .862), which did not change significantly at 6 week-follow-up ($P=1$ .00). *Willpower*: There was a significant decrease over time in participants belief that willpower controls weight/fat (($F(1.681, 212) = 72.631$, $p < .001$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a significant decrease in the belief that weight is influenced by willpower only 3.583 ± 2.03 *vs.* 2.206 ± 1.54), which did not change significantly at 6 week-follow-up ($P=1$ .00). *Fear of Fat:* A significant decrease in participants *personal fear of becoming fat* was seen over time ($F(2, 212) = 22.943$, $p < .001$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a significant

decrease in the *personal fear of fat* 4.115±2.32 *vs.* 3.227 ± 2.27), which did not change significantly at 6 week-follow-up (*P*=1 .00).

- Lastly, a repeated measures ANOVA with Greenhouse-Geisser correction indicated a statistically significant difference in means on *efficacy to fight weightism* from pre-workshop to 6-week follow-up ($F(1.865, 212) = 22.167$, $p < .001$). Post-hoc tests with the Bonferonni correction revealed that the training day elicited a significant increase in efficacy (22.79 ± 2.43 *vs.* 24.03 ± 2.57 respectively). However, efficacy decreased again over the 6 weeks following the training to 23.45 ± 2.56 which was significantly different from pre-training (*P*<.001) and from post-training (*P*<.05) .

Following the above mentioned pilot study, Dr. McVey and her collaborative investigators from Ontario and Alberta have submitted in March, 2011 a grant proposal to the CIHR-Institute of Population and Public Health to carry out a 5 year program of research. The proposed *population health intervention research* examines the processes underlying the delivery, implementation and knowledge of interdisciplinary leadership training in the area of prevention of weight-related disorders through a series of five conceptually related components. Overall , the program seeks to a) examine the operative characteristics of the partnerships embedded in the development and implementation of the collaborative interdisciplinary professional development process**, b)** identify effective ways to mentor the practitioners to transfer the uptake of their newly-gained knowledge into daily practice, and **c**) facilitate knowledge translation of findings across Canada to build capacity for a national prevention strategy aimed at improving the delivery of health promotion so that everyone, regardless of their weight, can reach their full health potential and not be disadvantaged as a result of their weight, gender, or other socially determined circumstance. The program of research is intended to find ways to maximize leadership among public health professionals in the delivery of high quality, efficient and equitable health promotion interventions in the realm of weight-related disorder prevention by researching ways to optimize the synergy across disciplines and sectors to promote congruent, non-stigmatizing and evidence-informed health promotion interventions, b) Support the scaling up of innovative professional development practices, by examining the factors that foster interdisciplinary collaboration within our own team and by researching partnership development as it unfolds to uncover the operating characteristics of sustainable public health interventions, c) Foster dynamic, sustained and collaborative engagement of researchers and research users in the prevention of weight-related disorders that could serve as scaffolding for future collaboration and programming roll-out, and d) Facilitate effective knowledge translation approaches that enhance the integration and use of new and existing knowledge to inform decision-making in public health by aligning our program with current policy, and by engaging our knowledge users in reciprocal knowledge exchanges of how best to meet their unique professional development needs required to serve the diverse needs of their clients and communities.

For relevant articles, reports, and prevention curriculum please visit
www.obesityandeatingdisordersymposium.ca
www.aboutkidshealth.ca/thestudentbody
www.ocoped.ca

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