# The Role of Health Psychologists in Improving Health Literacy and Behaviours in Health Promoting Schools

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**ABSTRACT**
Low health literacy is a major obstacle to improving people's well-being. Health literacy is the skill required to locate, comprehend, convey, and apply knowledge in everyday behaviours to improve and maintain health in all life circumstances and stages. Sixty percent of Canadians lack the skills to achieve optimal wellness. Introducing health literacy education and providing opportunities to practice behaviours at a young developmental stage are recommended before detrimental health practices are entrenched. The education system is one area that requires research attention to improve health literacy and behaviours in schools such as Health Promoting Schools (HPS). Health psychologists can improve well-being by conducting research, performing needs assessment, designing, implementing, and evaluating HPS initiatives promoted by the World Health Organization.

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**Résumé**
Le faible niveau de littératie en santé est un obstacle important à l'amélioration du bien être des personnes. La littératie en santé se définit par les compétences requises pour localiser, comprendre, transmettre et appliquer les connaissances dans les comportements quotidiens dans le but d'améliorer et de maintenir la santé dans toutes les circonstances et les étapes de la vie. Soixante pour cent des Canadiens n'ont pas les compétences qui leur permettraient de réaliser leur bien être optimal. L'introduction de la littératie en santé et des possibilités de manifester des comportements à un jeune stade de développement sont recommandés avant que les pratiques nuisibles à la santé soient incrustées. Le système d'éducation est un domaine qui nécessite l'attention de la recherche pour améliorer la littératie en santé et les comportements dans les écoles comme celui des écoles-santé (ES). Les psychologues dans le domaine de la santé peuvent améliorer le bien être en effectuant de la recherche, l'évaluation des besoins, ainsi qu'en concevant, en mettant en œuvre et en évaluant des initiatives d'ES mises de l'avant par l'Organisation mondiale de la santé.

**Psychologists Role in Improving Health Literacy and Behaviours in Health Promoting Schools**

Issues such as low health literacy have contributed to poor health outcomes in the Canadian and global population. Rootman and Gordon-El-Bihbety (2008) reported that health literacy is "the ability to access, understand, evaluate and communicate information as a way to promote, maintain and improve health in a variety of settings across the life-course" (p. 11). Low health literacy affects the ability to make proper wellness decisions and practice behaviours (CCL, 2008). Poor outcomes from obesity to diabetes and cardiovascular disease and mental disorders have contributed to global morbidity and mortality (World Health Organization [WHO], 2008). Health psychologists can play a role in improvements to wellness by advocating for school programs that will provide positive ethos to improve both psychological and physical outcomes in children.

The mandate of the Canadian Government and Canadian Public Health Association (CPHA) is to improve health outcomes (Federal, Provincial and Territorial Commitment to Canadians, 2007). Maximizing wellness outcomes identified by the Canadian Public Health Conferences on Literacy and Health in 2000 and 2004 includes reducing lifestyle diseases, increasing positive behaviours, and improving health literacy (Bouchard, Gilbert, Landry, & Deveau, 2006; Rootman & Edwards, 2006; Shohet & Renaud, 2006; Smylie, Williams, & Cooper, 2006; Zanchetta & Poureslami, 2006). This paper will address positive wellness promotion in school suggested by the Institute of Medicine to improve health education, health literacy, and outcomes and the role that psychologists can play to achieve improved wellness outcomes in Heath Promoting schools (HPS). HPS, which are part of an initiative of the WHO (2008) to help prevent chronic lifestyle diseases, are examples of solutions for improving health literacy and behaviours (Lee, 2009). Europe, China, Australia, Western Pacific, and Latin America implemented HPS that provide opportunities to strengthen behaviours by providing healthy environments. HPS allow students to practice and learn positive wellness skills in all aspects of school life (WHO, 2012).

**Problem Statement**

For the purposes of this paper, health literacy has two components: (a) physical health literacy, which includes aspects such as nutrition and physical activity, and (b) mental health literacy, which includes knowledge of positive mental health and identifying problems and solutions. There is evidence that both types of health literacy are deficient among Canadians. Only 40% of Canadians have the knowledge and skills required to make proper health choices (CCL, 2008). Physical and mental health are interdependent. The study of the interdependence is the foundation of health psychology (Marks, Murray, Evans, & Estacio, 2011). The goal of health psychologists and the Canadian Public Health Agency is to increase the health skills in those lacking them. Essential health literacy skills include the ability to follow health instructions, locate and interpret health information, read medicine or nutrition labels, identify safety and practices that enhance well-being, and incorporate wellness knowledge into everyday behaviours (CCL, 2011; von Wagner et al., 2009). In addition, building the capacity and improving health literacy is more effective at a young developmental stage before poor habits are entrenched (Manganello, 2008). Thus, HPS will help facilitate the development and maintenance of health literacy. School psychologists have had the traditional role of the "deficit" or medical model role (de Jong, 2000) which differs from the WHO definition of health (WHO, 1998).

The WHO definition of health incorporates a biopsychosocial or holistic perspective. Health is a "state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity" (WHO, 1998, p. 1). The biopsychosocial view encompasses the three P's of wellness (people, prevention, psychology; Marks et al, 2011) and is the basic premise behind health psychology, whereas the medical model emphasizes the three D's (disease, diagnosis, drugs; Marks et al., 2011). The health psychologist can apply the multidisciplinary field of health psychology and psychosocial understanding of theories and methods to improve wellness (Marks, et al., 2011) and expand the role of psychologists into disease prevention and implementation of HPS (de Jong, 2000). Identifying school characteristics to assess criteria that are consistent with HPS guidelines and pinpointing components that need modification to encourage health literacy and behaviours are ideally suited to the skills of health psychologists. Health literacy consists of both mental and physical components.

**Mental health literacy**. Several studies indicate that youths are not successful in identifying, treating, and preventing mental illness. For example, even though anxiety is a common problem (Coles & Coleman, 2010), which affects up to 20% of children of all ages (Vitiello & Waslick, 2010), many students (as high as approximately 50%) could not recognize symptoms. Students also could not identify symptoms of generalized anxiety disorder, obsessive-compulsive disorders, depression, eating disorders, or panic disorders (Coles & Coleman, 2010; Gray, Klein, Noyce, Sesselberg, & Cantrill, 2005; Kelly, Jorm, & Rodgers, 2006; Kelly, Jorm, & Wright, 2007; Mond et al., 2007; Sheffield, Fiorenza, & Sofronoff, 2004). Additionally, students were unable to understand, seek, find, access, may feel stigmatized, or know how to get appropriate psychological help. Since, this lack of awareness stems from low mental health literacy, then school education has not likely made teaching mental health issues an educational priority in school programs (Coles & Coleman, 2010). Improving mental health literacy and awareness of positive mental health by educators, their students, and the public at large is a crucial goal to improve the treatment of mental health problems.

**Physical health literacy**. Physical health literacy such as poor nutrition, and fitness knowledge and practices affect physical health. In addition, poor mental health is related to physical health problems. Low health literacy in mental and physical components has a negative impact on well-being (Hewitt, 2011; von Wagner et al., 2009). Those with the lowest rates of health literacy reported poor to fair health two and a half times more than those with the highest health literacy rates (CCL, 2011). Low health literacy was associated with increased hospitalizations (Hewitt, 2011), increasing health care expenditures twice as much as patients with high health literacy (Nielson-Bohlman, Panzer, Kindig, & Institute of Medicine, 2004). Interventions designed to increase health literacy improved outcomes in people with diabetes and cardiovascular diseases (Hewitt, 2011), but few studies address primary prevention (von Wagner et al., 2009). Three areas recommended for health literacy interventions are: the health system, culture and society, and the education system (Nielson-Bohlman et al., 2004).

**Educational Solutions – Health Promoting Schools as an Example**

Schools need to address low health literacy (Tappe, Wilbur, Telljohann, & Jensen, 2009) and mental health issues (Wei & Kutcher, 2012) in curricula enhanced by teacher professional development (Deal, Jenkins, Deal, & Byra, 2010). Education has direct effects on wellness, such as influencing preferences, behaviours, and lifestyle choices. Developing health literacy skills and acquiring positive behaviours are essential but unachieved parts of the education curricula (Nielson-Bohlman et al., 2004; National Health Education Standards [NHES], 2007; Tappe et al., 2009).

HPS are applied ecological interventions that improved health literacy including mental health outcomes, health behaviours in children and adolescents (Aldinger et al., 2008; Lee, 2009; Lee, St. Leger, & Cheng, 2007), and school connectedness (Rowe, Stewart, & Patterson, 2007). De Jong (2000) summarized HPS characteristics into school organizational development, physical, and psychosocial environment with support, and reduction of barriers. HPS have three major areas that include school climate, curricula, and services and supports (Saab, Klinger, & Shulha, 2009) which require critical examination for wellness promoting characteristics. Health psychologists can determine if nine components of these three areas demonstrate HPS criteria

designed to promote wellness, school policy, physical school environment, psychosocial school environment, wellness education, health services, nutrition services, counseling/mental health, physical exercise, and wellness promotion for staff, families, and communities (Lee et al., 2007). Canadian provincial governments support the development of comprehensive school health, although many aspects have been limited to healthy eating and physical activity (Saab et al., 2009). However, Saab et al. (2009) suggest that mental health is becoming a priority, but competing mandates and fragmented funding limit HPS implementation or sustainability.

HPS and wellness behaviour programs have the same goal - to improve outcomes. Questioning behaviours that have taken years to develop and changing behaviours are complex and difficult tasks. Personal attributes, such as motivation and self-efficacy, along with environmental infrastructure and social encouragement, are essential to remove barriers that prevent the adoption of healthy practices (Baban & Craciun, 2007). Identifying and isolating behaviours, which may be self-destructive to wellness and acquiring the knowledge and skills to practice positive health actions, are indispensable to improve outcomes. Additionally, a need to provide opportunities to practice these skills is a requirement of health education (Governali, Hodges, & Videto, 2005; NHES, 2007). A comprehensive school health model such as the HPS model (Markham & Aveyard, 2003) provides an ecological environment that offers opportunities during a period when children are more readily able to acquire these skills (Wharf Higgins, Begoray, & MacDonald, 2009; Manganello, 2008).

**Role of Health Psychologists**

Health psychologists can research to identify the extent, causes, and solutions to low health literacy and poor health actions to aid in the development, implementation, and evaluation of school programs. Psychologists specializing in the psychosocial aspects of behaviour can provide insights into health behaviour change and development using theoretical evidence-based models designed to improve actions and prevent detrimental behaviours (Baban & Craciun, 2007; von Wagner et al., 2009). Von Wagner et al. (2009) provide health psychologists with insight into how health literacy can improve wellness (e.g. health actions) by applying theoretical health behaviour frameworks into effective interventions. For example, the biopsychosocial process model is a comprehensive theory of health behaviour development (Lämmle, Worth, & Bös, 2011) similar to HPS or ecological models (Wharf Higgins et al., 2009). Components include some of the nine targeted areas in schools proposed by Lee et al. (2007) which were mentioned previously. Von Wagner et al. (2009) reviewed healthcare research since very few articles were available about disease preventive approaches to improving behaviours. It is difficult to prove that illness did not happen because of a school intervention, as opposed to measurable outcomes in illness such as improved blood sugars in individuals with diabetes due to diabetes education. There is not enough empirical research in school education's role in improving health literacy and behaviours "and evaluation of comprehensive approaches to school health" (Laitsch, 2009, p. 261). Health psychologists can help determine which components of HPS are effective. In addition, health psychologists can identify, anticipate, and intervene in barriers to implementation.

The implementation of HPS programs is inconsistent due to inadequate policies and infrastructure with no particular mandate or team responsible for setting up program components (Keshavarz Nutbeam, Rowling, & Khavarpour, 2010). Health psychologists can fill this gap by becoming aware of guidelines (International Union for Health Promotion and Education [IUHPE], 2009), assessing needs, recognizing obstacles to implementing HPS, facilitating communication (Keshavarz et al., 2010), implementing HPS components, evaluating program effectiveness (IUHPE, 2010), and conducting research.

In order for health psychologists to assist in developing HPS, psychologists can employ their cognitive and behavioural expertise in promoting relationships and cognitive abilities (de Jong, 2000), and their understanding of psychological and behavioural development. They can use these types of expertise to effectively incorporate evidence-based wellness practices while eliciting the support of all stakeholders. Stakeholders include teachers, students, administrators (Keshavarz et al., 2010), researchers (Lavis, Lomas, Maimunah, & Nelson, 2006), and politicians who provide funding (Lomas & Brown, 2009). Health psychologists can analyze programs shown to be partly effective, providing a needs assessment of missing components that do not meet HPS requirements, and integrating these and modified recommendations into an all-inclusive program that is more likely to accomplish the ultimate goal of improved health. Increasing physical activity and improving dietary behaviours, reducing childhood obesity, and achieving psychological well-being and optimal functioning (Markham & Aveyard, 2003) are essential goals of health promotion.

The pursuit of successful components and amalgamating them into the most effective school program is a difficult task. However, it may help improve the quality of life of millions. Researchers are getting closer to the answer as meta-analyses of health behaviour data and literature reviews offer objective summaries of effective components of health education programs, providing the baseline data for research into prevention school programs such as HPS. Langford (2011) is currently conducting a systematic review on the effectiveness of components of the HPS, but Stewart (2006) noted, "[n]o experimental studies have been conducted on initiatives adopting the health promoting schools approach in its entirety" (p. 18). Few studies provide a comprehensive investigation of the entire HPS program. The primary prevention evaluation and contribution by HPS is a missing gap in the research. Health psychologists can fill this gap and expand the role into primary prevention at the school level from needs assessment to implementation, evaluation, and other areas outside or inside the traditional box.

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