

Recommendations for Health Education and the Curriculum – Canada, the United States, and Germany: A Cross-cultural Analysis

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ABSTRACT

The long recognized link between health and learning has been motivating policymakers worldwide to improve the overall health of schools through the World Health Organization's (WHO) Health Promoting School (HPS) Model. Health education curriculum must be supported adequately by the overall cultural, educational, and social climate of a school's environment. To facilitate health literacy in youth, it is imperative that curricula in health education be supported by standardized national health education guidelines and provincial/state mandated teacher training within an interdisciplinary approach. This paper offers a cross-cultural analysis of curricular practices in health education of three developed countries: Canada, the United States, and Germany. Today's youth face universal health issues related to risk behaviour decision-making abilities. In order to develop health literacy skills and competencies across the lifespan, all nations must re-evaluate their health education curriculum in K-12 schools utilizing a health promoting school framework in order to support student health and learning.

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Introduction

Around the globe, youth are facing universal issues related to health behaviour choices, and decision-making skills. The United States' Centers for Disease Control and Prevention (CDC) and the Public Health Agency of Canada (PHAC) have identified six risk behaviours: alcohol and drug use, injury and violence, inadequate physical activity, poor nutrition, tobacco use, and sexual behaviours as primary targets for behavioural-change through health promotion (CDC, 2008, PHAC, 2008). Youth in Canada, Germany, and the United States are similarly susceptible to these risk behaviour categories, as they are bombarded with unhealthy information and targeted messages regarding health choices. Never before has it been so complicated to navigate through the plethora of life and health decisions.

Schools have long been a universal medium in terms of fostering health practices in youth. This paper offers a cross-cultural comparison of K-12 health education curricula in Canada, Germany and the United States, and culminates with recommendations regarding the standardization of health education programming, educator training, and interdisciplinary curricula to develop health literacy in today's youth.

Research has long indicated the link between health and learning within educational settings (St. Leger, 2001), catalyzing a movement towards improving the health environment of schools worldwide. During the Ottawa Charter meetings of 1986, the World Health Organization (WHO) outlined that health is:

....created by caring for oneself and others, by being able to make decisions and have control over one's life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members (Ottawa Charter for Health Promotion; WHO, 1986).

This international call for all members of society to have the opportunity and knowledge to make positive health decisions has often fallen on the school setting to instill in youth the necessary knowledge and skills to achieve health across the lifespan. These WHO aims have caused many countries to adopt the health promoting school (HPS) approach.

The HPS concept requires coordination of the home, school, and community to support a healthy learning environment for all in which to "live, work and play" (The Ottawa Charter for Health Promotion, 1986; WHO, 1986). HPS varies between countries and societies; however, the frameworks all contain common components.

Comprehensive health education programming should be supported by the curriculum, the learning environment, and key partnerships with the home and the community. Students must be supported by their environment through an ecological approach. The desired outcome of health education is the development of skills and competencies for youth to be competent health decision makers across the life span-- in other words, for students to become *health literate* (Vamos, Poureslami, Rootman, & Frankish, 2007).

Health Literacy

Health literacy has become an internationally recognized outcome for health education and promotion. Recently defined within the Canadian context, health literacy is “the degree to which individuals are able to access, understand, appraise, and communicate information to engage with the demands of different health contexts to promote and maintain health across the life-course” (British Columbia Health Literacy Team, 2006). Therefore, it is imperative to evaluate health education and the curricula through the HPS lens with an understanding that improved health literacy is the projected outcome. For the purpose of this paper, the cross-cultural comparison is framed within the HPS concept with the overall goal of achieving universal health literacy for youth. This comparison of health education curricula of Canadian, US and German systems will allow for further innovation in educational practices across the globe.

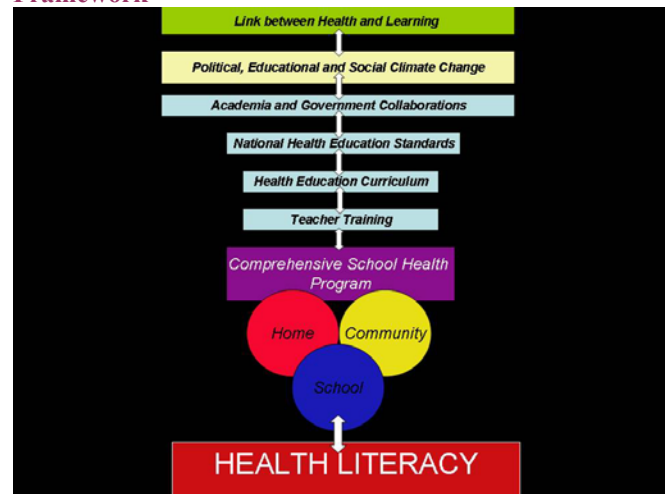
To develop health literacy in youth, an overall political, educational, and cultural shift must require national standards and guidelines for all nations, and demand educator training programs. Through a systematic HPS implementation, health education and the curricula need to be framed and supported by the necessary financial resources and allocations (Kolbe, L., Collins, J., & Cortese, P., 1997). Health literacy can be developed through a reciprocal process with strong collaboration and stakeholder cooperation as shown in Figure 1.

As outlined in Table 1, the key elements for cross-cultural comparison identified in this paper are the standardization of health education curriculum and national guidelines, teacher training, and cross-curricular health education programming and practices. For the purpose of this comparison, examples are derived from provincial/state curricular documents, and therefore represent a sample of the overall national health education practices. In Canada, documents are British Columbian; In Germany, curriculum is from North-Rhine Westphalia, and in the United States, examples are derived from the state of Florida.

Canadian Context: British Columbia Health Education Curriculum

In offering a Canadian context, this paper will focus on British Columbia (BC) health education

Figure 1. Health Education and the Curricula Framework



Source: MacNiven & Vamos (2008). Unpublished.

programming and curricula. In BC, health education curriculum documents are outlined in Integrated Resource Packages (IRPs) that describe aims and outcomes for health education and are separated into the following courses: Health and Career Education K to 7; Health and Career Education 8 and 9; and Planning 10. As outlined in Table 2, the aim of achieving life-long skills and competencies is described within the packages; however, the necessary components of the HPS model in order to support the learning both within and outside the classroom, have not been sustainably implemented. The financial allocation and necessary training is not provided for such aims to be fulfilled across the province/nation.

According to the only existing Canadian guidelines stating the recommended number of hours of quality health education teaching, the Healthy School Report Card recommends a *minimum* of 50 hours instruction time as part of a school's improvement process (Vamos, 2006). The IRPs shown in Table 2 demonstrate less than the minimum number of hours recommended for teaching health education, and are not mandated as required. BC curricula documents are not currently being facilitated through an HPS framework to comprehensively ensure the development of health literacy.

Table 1: Major Overview of Key Elements for Cross Cultural Comparison (Met=● Partially Met=● Not met=●)

	Canada	Germany	United States
Standardization of Health Education (HE) Curriculum			
Curriculum documents created/monitored by Province/State	●	●	●
Documents based on National Standards/Guidelines	●	●	●
Teacher Training			
Mandatory training for teachers in HE	●	●	●
Adequate resources available to support the delivery of HE curriculum	●	●	●
Cross-Curricular Teaching			
HE curriculum is given adequate time and priority within timetable	●	●	●
HE curriculum is integrated into multiple or all subject areas	●	●	●
Adequate professional development and resources offered for all subject matter teachers	●	●	●

Note: This comparative chart is based on curriculum documents of British Columbia, Canada; North-Rhine Westphalia, Germany; Florida, United States

German Context: North-Rhine Westphalia Health Education Curriculum

In North-Rhine Westphalia, and also in the whole of Germany, health-related topics are mainly taught in social science in elementary schools and in biology in secondary schools. The main objective of health education in schools should be advancing health literacy; therefore, instruction should go beyond the knowledge component of health related topics to the development of skills and competencies.

This aim should be achieved, ideally, through the mediation of health related knowledge, the

motivation towards a health promoting attitude, and the practicing of health conscious behaviour (Federal Centre for Health Education, 2000). The health-related topics that are taught in schools are established by the Conference of the German Ministers for Education (KMK). As demonstrated in Table 3, health education is mainly included within the social science and biology curricula.

The health education curriculum can be described as being spiral (Federal Centre for Health Education, 2000) as several topics, such as sex education and addiction, are covered repeatedly throughout the grade levels specifying certain aspects

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for age-appropriateness. The curriculum listed in Table 3 demonstrates the main obligatory topics. However, as no instruction time is recommended for the topics, the curriculum is not adequately facilitated. Although a variety of health promoting school examples are present in Germany, all schools need to participate in order to address health literacy levels of our youth. Standardized programming which is obligatory for all schools, facilitated by trained professionals and supported by collaborative stakeholders will allow the enhancement of student health literacy across Germany.

US Context: Florida Health Education Curriculum

The school health program in the United States consists of strategies, activities, and services to promote students' physical, emotional, and social development (ASHA, 2008). To illustrate, consider the Florida Health Education standards. However, these standards do not represent the norm for all the United States. The Florida Health Education Standards were approved by the State Board of Education in 1996 to provide expectations for student achievement in Florida (FLDOE, 2008). The Standards, called Sunshine State Standards, were divided into four separate grade clusters (PreK-2, 3-5, 6-8, and 9-12), as shown in Table 4. Furthermore, Health Education was divided into the following sections: Health Literacy (HE.A), Responsible Health Behavior (HE.B), and Advocate and Promote Healthy Living (HE.C).

To augment the curriculum, school nurses provide health appraisals, nursing assessments, nutrition assessments, preventive dental services, periodic health screenings, health counseling, referral and follow-up of suspected or confirmed health problems, emergency health services, and promote activities to reduce risk-taking behaviors. By having professionals improving the overall health environment of the school, the health education curriculum is supported by components of an HPS framework. In contrast to Canada and Germany, the United States more successfully supports classroom learning with school health services. However, the need for further collaboration among community and home stakeholders to ensure sustainable health choices for youth continues to be a great challenge.

Standardization of Programming

To standardize health education curriculum properly, national standards should exist, as well as umbrella organizations and governing bodies to ensure the collaboration of key stakeholders from all sectors. Canada and Germany do not have such

guidelines; however, the United States has well established national standards which act as a framework organizing knowledge and skills into curricula at the state and local levels (The Joint Commission on National Health Education Standards, 2007). In addition, the CDC provides support for collaboration between the CCSO (state superintendents), the Association of State and Territorial Health Officials (state health commissioners), and the American Public Welfare Association (Kolbe, 1997).

This collaboration is standardized with clear guidelines, aims and outcomes in order to ensure national standards. The CDC determines the leading youth risk behaviours and facilitates the coordination among these and other key stakeholders.

Neither Canada nor Germany has a national governing body such as the United States' CDC to assemble research, governments, academic institutions, and schools. Canadian research indicates "the need for the initial development and implementation of national health educator roles and competencies guidelines as a basis for use within undergraduate, professional preparation, and graduate programs to guide and promote promising practices" (Vamos, 2007).

It is necessary to have clear national goals, guidelines and standards in terms of health education frameworks and aims, in order to fulfill the WHO goal of developing the health standards of all youth. The school setting is a fundamental piece in terms of improving the health literacy of youth:

It is therefore vital that we look at what schools can do to equip young people with knowledge and skills at the highest level to enable them to be active participants in shaping those policies and practices that impact on their own health, and the health of their community and country (St. Leger, 2001, p. 197).

The classroom is the most influential place for youth to learn healthy life practices, but it must be adequately supported. Examples of comprehensive programming exist in both Germany and Canada, but the lack of standardization of programs leaves a large percentage of the population not receiving the appropriate standard of care. Health literacy is linked to socio-economic status level; therefore, clear guidelines and collaboration at all educational institutions are essential to allow for greater youth population access.

Table 2: Overview of Health Education Curricula in British Columbia, Canada

	Health and Career (K-7)	Health and Career (8-9)	Planning 10
Aim	“Provide knowledge, skills and attitudes necessary to be informed decision makers and make healthy and safe choices”	“Provide knowledge, skills, and attitudes that will assist in making informed decisions related to health, education and future careers”	“Students develop skills to become self-directed individuals who set goals, make thoughtful decisions and take responsibility for pursuing their goals throughout life”
Topics	Goals and decisions, career development and health (health living, health relationships, safety and injury prevention, substance misuse prevention”	Potential careers, health topics(healthy living, health relationships, safety and injury prevention and substance misuse prevention)	Graduation programs, education and careers, health (healthy living, health information, healthy relationships, health decisions) and finances.
%	5% of total instructional time for the school year	5% of total instructional time for the school year	3% of total course time allotted to health instruction
# of Hours	45-50 hours per year	45-50 hours per year	Health, 36 hours per year of total 120 hours for course

Source: British Columbia Ministry of Education (2008)

Table 3: North Rhine-Westphalia Elementary and Secondary School Health Education Curricula

Topics by Grade level	Curricula Subjects
Body, Senses and Nutrition (Primary and elementary grades)	Introduce principles of hygiene, a balanced diet and dental health, preventative measures of accidents and first aid measures
Boys and Girls (Primary grades)	Human development (stage specific)
Nutrition Body Sex Education (Grades 5 and 6)	Health food, harmful behaviour (smoking and alcohol), anatomy of the body, changes in puberty
Sex Education Drug Prevention (Grades 7 and 8)	Contraceptives, aids, drug prevention, anatomy and function of sexual organs health and preventive measure including causes of disease and prophylaxis and immunization
Human Development (Grades 9 and 10)	Across the lifespan human development, health, illness, causes, courses and treatment of disease, addiction

Source: Ministerium für Schule, Jugend und Kinder des Landes Nordrhein-Westfalen (1989-2008)
(North Rhine-Westphalian ministry for school, youth and children)

Note: There is some variation among the topics at certain secondary schools.

It is imperative to see the school not working independently to develop health literacy in our youth, but as an important base institution within the overall national framework (Kolbe, 1997), “Schools, by themselves, cannot—and should not be expected to—address the nation’s most serious health and social problems” (Kolbe, 1997, p. 257). The key concept is

to create national goals and mandated stakeholder contributions in order to support youth from an ecological approach (Vamos, 2007).

As pertinent as the school institution is, it must be a mere player within an all encompassing environment: “The notion of critical health literacy and the HPS concept require schools to work in

Table 4: School Health Curriculum in Florida, US

Pre K-2 Curriculum	Grades 3-5	Grades 6-8	Grades 9-12
HE.A.1.1: The student learns the names of body parts HE.A.2.1: knows sources of health information and how to locate them. HE.B.1.1: knows and practices good personal health habits. HE.B.2.1: recognizes the ways in which the media, technology, and other sources provide information about health. HE.B.3.1: knows the various kinds of verbal and nonverbal communication HE.C.1.1: identifies health problems that require the help of a trusted adult HE.C.2.1: knows various ways to share health information (e.g., talking to peers about healthy snacks).	HE.A.1.2: understands the functions of human body systems. HE.A.2.2: knows the characteristics of valid health information, products, and services. HE.B.1.2: knows the importance of assuming responsibility for personal health habits. HE.B.2.2: knows how the media influence thoughts and feelings about health behavior. HE.B.3.2: understands the relationship between verbal and nonverbal communication HE.C.1.2: knows how to apply a decision-making process to health issues and problems HE.C.2.2: knows various methods for communicating health information and ideas	HE.A.1.3: knows how body systems work together and influence each other. HE.A.2.3: knows how to analyze the validity of health information, products, and services. HE.B.1.3: knows the importance of assuming responsibility for personal health behaviors. HE.B.2.3: knows how messages from media and other sources influence health behavior. HE.B.3.3: knows effective verbal and nonverbal communication skills (e.g., body language and eye statements). HE.C.1.3: knows how to apply a decision-making process to health issues and problems individually and collaboratively (e.g., nutritional food choices at home, restaurants, and school). HE.C.2.3: knows methods for conveying accurate health information and ideas to both individuals and groups using a variety of methods (e.g., through dialogue, oral reports, and posters).	HE.A.1.4: understands the impact of personal health behaviors on body systems. HE.A.2.4: understands potential controversy regarding the validity of health information, products, and services. HE.B.1.4: understands the role of individual responsibility regarding personal risk behaviors. HE.B.2.4: understands the impact of technology on personal, family, and community health, understands the role of governmental agencies in regulating advertising claims related to health. HE.B.3.4: knows techniques for communicating care, consideration, and respect of self and others (e.g., encouragement, trust, and sexual abstinence). HE.C.1.4: knows various strategies when making decisions related to health needs and risks of young adults (e.g., support-and-reward system), knows the health concerns that require collaborative decision making (e.g., community violence and water pollution) HE.C.2.4: knows oral, written, audio, and visual communication methods to accurately express health messages (e.g., through an audiovisual public service announcement), knows methods for effectively expressing feelings and opinions on health issues.

Source: Florida Department of Education (1996)

different ways—to move from a teacher dominated school hierarchy to a more collaborative community” (St Leger, 2001, p. 203). A functioning HPS model is defined by stakeholders communicating and working

together with common goals and outcomes for all youth. The role of the teacher must not be underestimated: “National Health Education Standards (NHES) improve student learning across

the nation by providing a foundation for curriculum development, instruction, and assessment of student performance... [they] also provide a guide for enhancing preparation and continuing education of teachers” (NHES, 2007, p.5). As St. Leger outlines “The school is a fundamental institution in building the wealth and health of countries, and education has been shown to be a key factor in narrowing the differential between the rich and the poor” (2001, p.197.)The school is the only setting, which will impact all youth within our respective countries, and therefore educators are an integral piece within this health literacy puzzle.

Teacher Training

Contemporary youth live within a particularly challenging health decision-making environment. In this era of mass information and increasingly sophisticated marketing, skills-based health education tools are more important than ever. In the aforementioned HPS framework, “teachers and other health professionals must be prepared to address the complex social, developmental, and health-related issues that youth bring to the classroom and clinic” (Peterson, Cooper, & Laird, 2001, p.138). To deliver health education curricula and properly facilitate these vital skills, it is imperative that teachers be given mandatory training.

In both Canada and Germany, there is currently no mandated training for teachers in health education. This absence can greatly affect the delivery of curriculum in two fundamental ways:

- It risks that the curriculum is not taught with the necessary competence and comprehension; and,
- Teachers may be less likely to weigh the allotted recommended number of hours to instruct in an area in which they are less comfortable.

According to Vamos and Zhou (2007), a teacher’s self-assessed ability to teach health education affects their delivery of the curriculum. Without offering teachers the necessary support to have them become involved, motivated and financially compensated for professional training and facilitation of the health education curriculum, the overall HPS vision cannot be accomplished.

In the United States, the National Commission for Health Education Credentialing, Inc (NCHEC) aims to improve the practice of health education and serve the public and profession of health education by certifying health education specialists, known as Certified Health Education Specialists (CHES). In addition, the NCHEC strengthens professional preparation and practice, promotes and monitors professional development through continuing

education programs (NCHEC, 2002). The professional certification program of the NCHEC establishes a national standard, and greatly benefits the public by assisting employers in identifying qualified health education educators for efficient delivery of health education curricula. However, not all states in the United States require their teachers to be certified health educators (SHPPS, 2006).

The United States has collaborative communities working to improve the delivery of curricula through teacher training as opposed to Canada and Germany. It is necessary that all nations collaborate to ensure the delivery of health education is conducted by trained professionals: “Education for health literacy for the provider (teacher) should be as important as for the consumer (student)” (Peterson, Cooper, & Laird, 2001, p. 144). All educators should have mandated training to teach effectively in an environment supported by the HPS framework.

Interdisciplinary Approach to Curriculum

Also instrumental in the development of health literacy is the insertion of health education through an interdisciplinary approach incorporating health education within all subject curricula. It is not only health education teachers that need to be trained and supported, but all subject area teachers to fulfill the requirements of an ecological approach. Neither Germany nor Canada has any training or certification programs for supporting all subject area teachers to deliver health education programming. In order to contribute to the health promotion of students, Wildt and Wildt (1997) claim that teachers need to be equipped with skills and competencies during their academic studies. In the United States, non- health education teachers can become certified through the aforementioned CHES training. In all three countries, there are examples of voluntary teacher training programs; however, only the United States has training programs based on national aims and standards. Health education curriculum is not currently being provided the adequate resources and priority across the spectrum of academic subjects.

Health education needs to be included in the curriculum and given equal importance to all ‘academic subjects’. Often health education concepts are not integrated into lessons, even when officially included within the curriculum. Teaching health education skills and competencies in our youth goes beyond the knowledge component of key health risk behaviours. To affect youth health behaviour positively, it is imperative that skills-based curriculum achieve the maintenance of the four domains of health literacy: the youth’s ability to access, comprehend, evaluate, and communicate information for health.

Recommendations

As outlined in Figure 2, the key health literacy process, which can instill competencies across the lifespan must be supported by the school itself, and be integrated within all the subject areas.

To foster health literacy in our youth today, an educational, political and social climate shift needs to motivate a variety of stakeholders in education and health to adopt a long term vision in terms of health education programming. The classroom lessons facilitated by health education curriculum are integral to the process of health decision-making, but they must be supported by the overall environment both within and outside the school. Comprehensive programs that are not mandated for all citizens will simply widen the gap between the health of the rich and the health of the poor. As Kolbe (1997) indicates:

Comprehensive school health education includes a documented, planned, and sequential program of health education for students in each grade, K-12. It is taught by teachers trained to teach the subject; involves parents, health professionals, and concerned community members; and integrates education about a range of categorical health problems and issues at developmentally appropriate ages (p. 258).

This cross-cultural comparison demonstrates the need for other countries to learn from the United States, and create national guidelines and aims that can be mandated in all K-12 schools. Health education must be seen for its crucial pertinence in terms of citizen's health across the lifespan. Nutbeam (2000) states:

If we are to achieve the ultimate goal that is reflected in that definition of health

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literacy—trying to promote greater independence and empowerment among the individuals and communities we work with—we will need to acknowledge and understand the political aspects to education, focused on overcoming structural barriers to health (p. 267).

Health education curriculum must be standardized, facilitated by trained teachers, and taught across all subject areas. For this comprehensive model to successfully support curriculum documentation, a political, educational, and social climate shift must catalyze an international movement.

Figure 2: Overview of Essential Components to Support Health Education Curricula



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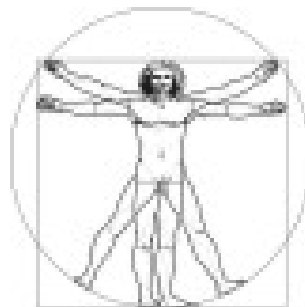
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