The Health of CANADA'S YOUNG PEOPLE

A MENTAL HEALTH FOCUS

Public Health Agency of Canada
Agence de la santé publique du Canada

hbsc
Health Behaviour in School-aged Children
A World Health Organization Cross-National Study

The Health Behaviour in School-aged Children (HBSC) study is a cross-national study supported by the World Health Organization. Canadian participation in the HBSC surveys has been funded by Health Canada. The Health of Canada's Young People: a mental health focus, a 194-page report, presents the findings from the 2010 Canadian survey. This summary booklet highlights some of those findings.

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Introduction

The Health Behaviour in School-aged Children (HBSC) Study is a cross-national research study conducted in collaboration with the World Health Organization. The study aims to increase understanding of health and its determinants in populations of young people. It involves health surveys conducted with students in classroom settings, with a focus on the early adolescent years (ages 11-15). HBSC is administered every four years following a common research protocol.

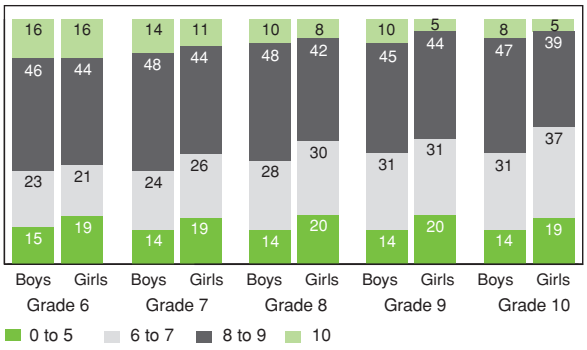
The HBSC survey was first developed in 1982 by researchers from three European countries. The project has since expanded to include 43 participating countries and regions from Europe, North America and Israel. For the 2010 HBSC survey, the 8th in the cross-national series and 6th in Canada, 26,078 young Canadians from 436 schools participated. This summary booklet details some of the key findings from this most recent survey. The complete report can be accessed at http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/school-scolaire/behaviour-comportements/index-eng.php.

Mental Health

The focus of the current report is the mental health of adolescents with contextual and health/health behaviour variables being related to mental health. In congruence with current approaches to mental health, we see the phenomenon along two dimensions ranging from emotional (internalizing) to behavioural (externalizing) along one dimension and from positive to negative along the other dimension.

Regardless of the way internalizing/emotional outcomes were examined, girls reported more negative outcomes. They had higher levels of emotional problems and lower levels of emotional well-being and life satisfaction than boys. Furthermore, while on many internalizing/emotional variables, boys' scores remain fairly even across grades, scores for girls consistently worsen.

1 **How students rate life out of 10, by grade and gender (%)**



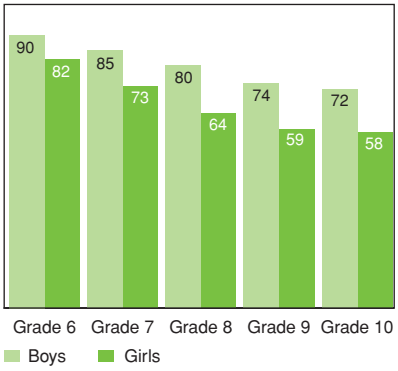
In contrast, externalizing/behavioural outcomes favour girls, who reported fewer behavioural problems and more prosocial behaviours than boys, although the size of this gap is smaller than that for internalizing/emotional outcomes. However, for both boys and girls, externalizing/behavioural outcomes worsened across grades such that older students demonstrated more behavioural problems and showed fewer prosocial behaviours. A similar pattern occurs with life satisfaction, in that it decreases across grades and is consistently poorer for girls than for boys. [Figure 1]

The contexts for young people's health

Four contexts figure prominently in the lives of young people: the home, the school, their peers, and the neighbourhood. Each context may be the critical one for a particular adolescent with respect to health/health behaviours and most particularly mental health.

The home setting

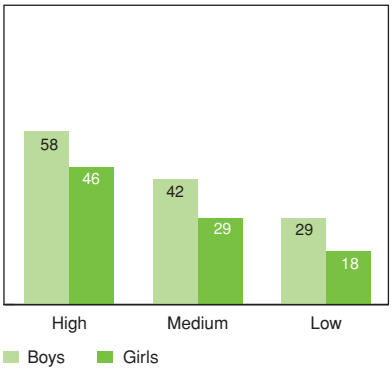
2 **Students who report being understood by their parents, by grade and gender (%)**



The family provides the first socializing context in a young person's development. Children learn and develop values and norms based on those modeled, taught, and enforced within the family environment. Younger students are much more likely than older students to feel understood by their parents, while boys at all grades are substantially more likely than girls to agree they are understood by their parents. An increase in the proportions of young people feeling understood by their parents today relative to the early years of the survey is substantial and suggests that youth have more positive relationships with their parents than in the past. [Figure 2]

The school setting

3 **Students reporting high levels of emotional well-being by school climate, by gender (%)**

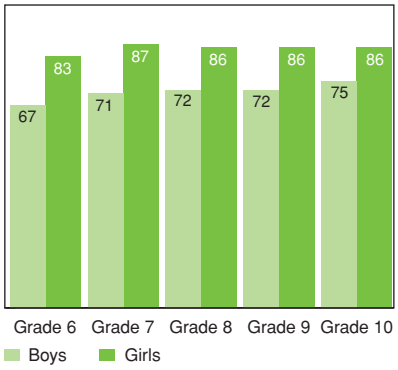


Youth spend a lot of their time at school. Thus it is not surprising that their school-related experiences can have a significant influence on their cognitive development, and their physical and mental health. For example, a positive school climate provides advantages to young people, while a negative school climate creates distinct challenges for them. Boys who report being in a school with a positive (high) school climate also report levels of emotional well-being that are twice as high as those boys who report being in a school with a negative (low) school climate. The results are even more dramatic for girls in which the differences are almost three times higher. [Figure 3]

Kurtis Chen

The peer context

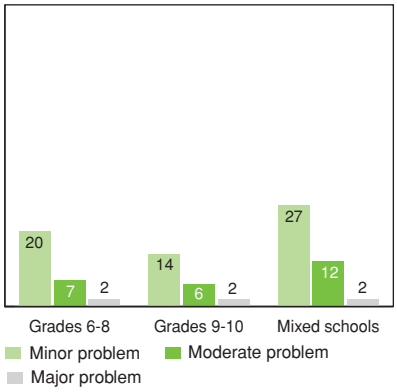
4 **Students who find it easy or very easy to talk to same-sex friends about things that really bother them, by grade and gender (%)**



From childhood to adolescence, peer relationships become increasingly significant sources of support, companionship, information, and advice. Peers can have short- and long-term beneficial effects on social, cognitive, and academic adjustment. Reported friendship quality for adolescents tends to be gender-related. Girls, for instance, remain more comfortable than boys talking to same-sex friends about things that really bother them [Figure 4]. A similar gender pattern is found for best friends, while boys, in contrast to girls, have less difficulty in talking to opposite-sex friends, at least in Grades 6-7.

The neighbourhood

5 **Vacant or shabby houses and buildings are a problem in the neighbourhood where the school is located, by school type (%)**



Neighbourhoods represent key environmental settings for youth, as policies, physical spaces and structures, and cultural, social, and interpersonal interactions that occur in these environments influence their subsequent behaviour, and ultimately their health experiences. Vacant or shabby housing can be an indicator of unfavourable neighbourhood conditions. Such housing was perceived to be at least a minor problem in 29% of the elementary schools, 22% of high schools, and 41% of the schools serving mixed grades. The peak surrounding mixed schools is important, as it reflects lower socio-economic conditions surrounding those school communities that are required to combine school grades. [Figure 5]

Young people's health behaviours and health outcomes

Health behaviours and health outcomes encompass a range of variables that can be summarized under the four broad headings of injury, healthy living and healthy weights, substance use and risky behaviour, and bullying and fighting. Healthy living and healthy weights includes physical and sedentary activity in addition to food consumption and measures of overweight/obesity (both measured and self-perceived, only the latter being measured by HBSC). Risky behaviour and substance use relates to consumption of alcohol, smoking of cigarettes, and use of illegal substances (most notably cannabis), as well as sexual behaviour.

Injury

Injury is recognized as a leading health public health issue in populations of young people around the world. Because of the enormous burden of injuries in terms of pain and suffering, permanent disability and even death, the Government of Canada has identified injury as a major prevention focus. Injuries are costly to society in terms of health care expenditures and time lost from productive activities for both adolescents and the adults who care for them when they are injured. Context plays a role in the nature and effects of these relationships. Injuries that occur in different settings and contexts might have very different effects on standard indicators of mental health.

6 **Students reporting an injury requiring medical treatment, by grade and gender (%)**

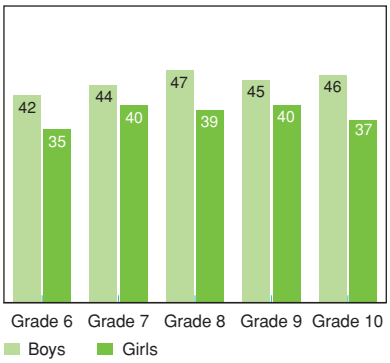


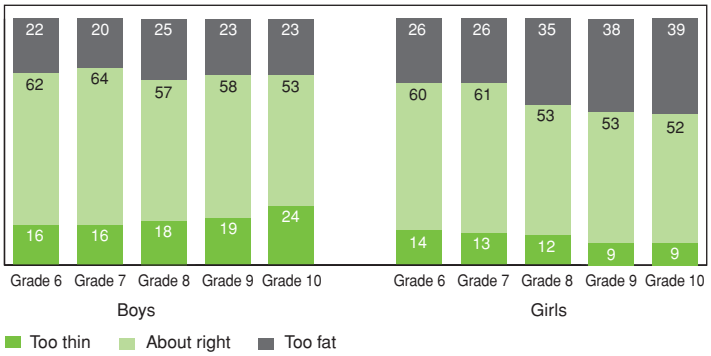
Figure 6 shows the overall proportions of students who reported at least one injury requiring medical treatment over the past year. Across the grades, 42 to 47% of boys reported experiencing at least one such injury, compared to 35 to 40% of girls. In every grade, boys reported more injuries than girls. There was no strong trend in the occurrence of injuries across the five grades.

Healthy living and healthy weights

Between 19 and 26% of boys are physically active for at least 60 minutes on a daily basis. Only 11 to 20% of girls achieve this same criterion. The proportion of students who are physically active at this level declines between Grade 6 and Grade 10 within boys and girls.

According to the 2010 HBSC findings, 16 to 24% of boys and 9 to 14% of girls believe that their body is too thin. Within boys these rates increase by 8 percentage points from Grade 6 to Grade 10, and within girls these rates decrease by 5 percentage points from Grade 6 to Grade 10. More girls than boys believe that their body is too fat, while more boys than girls see their body as too thin. Rates with advancing grade remain relatively stable in boys (within 5 percentage points) but increase sharply in girls (up to 13 percentage points) with advancing grade, such that, by Grade 10, 39% of girls believe their body is too fat. The percentage of girls who believe their body is too fat represents a far greater percentage than girls who are overweight or obese. [Figure 7]

7 **Students who think their body is too thin, about the right size, or too fat, by grade and gender (%)**

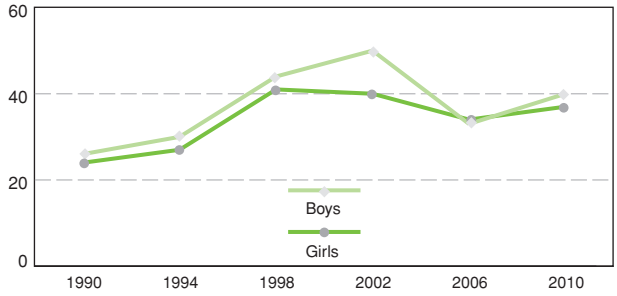


Substance use and risky behaviour

Adolescence is a formative stage of child development. During the adolescent years, many lifelong health habits are established. It is also a period of experimentation with smoking, alcohol, and drugs and other risky behaviours. For most adolescents, these behaviours are occasional in nature and a normal part of growing up. However, for a sizable minority of adolescents, these behaviours escalate and become more serious problems.

Cannabis use in Canada represents an area of increasing public health concern. Percentages of students reporting ever using cannabis have increased between 1990 and 2002, with slightly lower rates from the 2002 peak reported in the last two HBSC cycles. In 1990, approximately one in four students in Grade 10 had used cannabis at some point in their lifetime. By 2002, the rate of cannabis use doubled in boys and increased to two-fifths of girls. Rates of cannabis use have since declined to 40% in boys and 37% of girls in 2010. These findings suggest that cannabis use should continue to be a priority in health education curricula and related policies. [Figure 8]

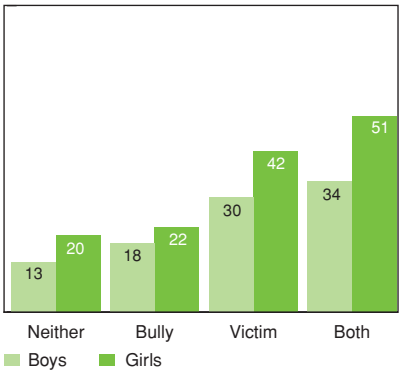
8 Grade 10 students who have ever tried cannabis, by gender and year of survey (%)



Bullying and fighting

Bullying is a form of repeated aggression where there is an imbalance of power between the young person who is bullying and the young person who is victimized. Power can be achieved through physical, psychological, social, or systemic advantage, or by knowing another's vulnerability (e.g., obesity, learning problem, sexual orientation, family background) and using that knowledge to cause distress. Young people who are victimized tend to have high levels of emotional problems, while young people who bully tend to have the highest levels of behavioural problems. Young people who are involved in both bullying others and being victimized tend to have elevated levels of both emotional and behavioural problems, with this group of young people having the highest level of emotional problems and the second highest level of behavioural problems. Thus negative outcomes are differentially associated with types of bullying involvement, while young people who both bully others and are bullied are at a particularly high risk for emotional and behavioural problems. Figure 9 illustrates the findings for emotional problems; see 2010 HBSC report for behavioural problems.

9 Students reporting high levels of emotional problems by bullying involvement, by gender (%)



Summary

While the full report contains information on a wide range of contexts and health behaviours/health outcomes, the focus is on mental health. As such, in this summary, we consider how these other factors are connected to mental health.

In examining the connections between contextual factors and mental health, one key theme emerges: Interpersonal relationships matter. No matter how mental health is measured and no matter what interpersonal relationship is concerned, adolescents with positive interpersonal relationships tend to fare better in terms of mental health. At home, ease of communicating with father and with mother, having relatively few arguments with parents, and sitting down to eat as a family are all linked with improved mental health. At school, crucial elements related to mental health include academic achievement, school climate, teacher support, and peer support. With peers, engaging in positive activities is a protective factor for mental health, while engaging in negative activities is a risk factor. Ease of talking to friends proves a two-edged sword with positive connections to emotional problems but negative connections to behavioural problems.

The relationship between health behaviours and mental health shows two kinds of patterns. In the first pattern, the health behaviour demonstrates similar connections to mental health for both genders. Physical activity injury, for instance, is related with better emotional well-being for girls and boys. Healthy living factors consistently connect to mental health with better results for engaging in physical activity, eating fruits, and eating vegetables, and poorer results for engaging in sedentary activity, consuming sugared soft drinks, and eating at fast food restaurants. Adolescents who see themselves as too fat or too thin and adolescents who are trying to lose weight have lower levels of emotional well-being. Smoking and being involved in bullying link to greater behavioural and emotional problems; being involved in bullying is also a risk factor for poorer emotional well-being with adolescents who both bully and are bullied being at greatest risk.

Often, however, the pattern of relationships is more complex than seen in the first pattern. For example, reports of injuries are related to behavioural problems for both genders but to emotional problems only for girls. Fighting injuries connect negatively to emotional problems and emotional well-being for boys, with increasing severity as measured in days missed increasing the likelihood of negative outcomes. This relationship is inconsistent for girls. BMI measures relate much more strongly with emotional problems and emotional well-being for girls than they do for boys. Similarly, binge drinking and cannabis use have stronger negative relationships with mental health for girls when compared to boys, while having had sex links to poorer emotional well-being for girls but better emotional well-being for boys.

Complicating these relationships is the issue of causality. It is unclear in these cases whether the health behaviour leads to the mental health outcome or the mental health outcome leads to the health behaviour. Most likely, there is reciprocal causation with regard to health behaviours and mental health. Reciprocal causation suggests that we need a multi-pronged approach to the issue, such that we ignore neither health behaviour nor mental health outcome under the likely false impression than ameliorating the one will directly have positive effects on the other.