

## Portugal: from research to practice – promoting positive health for adolescents in schools

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### Executive summary

Compared with other countries within the HBSC survey, young people in Portugal report higher levels of stress associated with school homework and have lower perceptions of academic achievement. Perceptions of school did not change significantly between HBSC surveys carried out in 1998, 2002 and 2006.

Trends from the three HBSC surveys suggest that tobacco use is decreasing and alcohol and drug use are stable, although episodes of alcohol misuse (“getting drunk”) may be increasing. Violent episodes in schools (bullying) have been decreasing slowly but steadily since the 1998 HBSC survey. Students are tending to perceive their health as better and are reporting fewer psychological symptoms. The general picture suggests a decrease in sense of well-being between 1998 and 2002, and a recovery between 2002 and 2006.

The 2002 HBSC survey revealed that adolescents with nationalities other than Portuguese did not perform as well academically as their Portuguese peers and were not as extensively involved in the life of schools. Their communication with parents was not as strong and they were more likely to engage in sexual intercourse, involving unprotected sex and sex associated with alcohol and drugs use. Further analysis suggested that the association of migrant status to a poor sense of well-being, lack of achievement at school and weaker family relationships was mediated by poverty.

Results from the 2002 and 2006 HBSC surveys were further analysed (a total sample of 11 008 young people in the sixth, eighth and tenth grades). Students who came from Portuguese-speaking countries but who did not have Portuguese nationality (amounting to 3% of the total sample) reported higher frequencies of feeling depressed or low and being irritable or bad tempered on a weekly basis. In general, foreign adolescents tended to feel more unsatisfied with their lives than Portuguese adolescents. Focus groups were held with migrant adolescents, professionals (teachers, psychologists, nurses and social assistants) and parents.

Addressing the health problems of young people in Portugal requires a vigorous examination of school organization within the country. The Ministry of Education in Portugal created the Grupo de Trabalho para a Educação Sexual/Educação para a Saúde (GTES, working group on sexual education and health education) in 2005 to come up with proposals to ensure health education was in the curricula of all schools throughout the country by 2007.

The group stated that health education should be part of all school activities. In parallel, they looked at the national curricula within the “areas curriculares não disciplinares” [“non-disciplinary curricular areas”] and decided that at least one of the three areas (“project area”, “tutored study” and “civic education”) would be devoted to health education, with one hour a month being focused on sexual education. Four priority interventions were identified: substance use; sexuality/sexually transmitted infection and HIV prevention; nutrition and physical activity; and violence prevention and well-being/mental health. Each school nominates a teacher to coordinate health education and health promotion and to liaise with families and local health centres.

A comparison of results from the school principals’ survey held in January 2006, the 2006 HBSC survey and the last national survey held by GTES in May 2007 strongly suggests health promotion is now a regular practice in the majority of Portuguese schools.

## Introduction

Adolescence can be understood as a natural and normal process of development, accompanied by physical, emotional and social changes. Assessment of adolescent mental health is of great importance. Several psychopathological/psychiatric conditions begin in adolescence, and the normal development process is linked with a degree of turbulence. A correct assessment must include the history of individual development, relationship with parents and peers and the evolution of issues such as identity and autonomy. Since most adolescents in Portugal attend school, a careful analysis of school organization and how it can contribute to promoting good mental health and preventing mental ill health is relevant.

## HBSC Portuguese data

Data used in this case study are from the Portuguese HBSC 1998, 2002 and 2006 studies (1–3). A cluster sample was used in the sixth (35.3%), eighth (36.3%) and tenth (28.3%) grades to provide a national representative sample of 17 911 students from three waves – the first wave in 1998 (n = 6903), second in 2002 (n = 6131) and third in 2006 (n = 4877).

Subjects were 48% male and 52% female, from 10 to 25 years old (M =14 years, SD = 1.81 years). Subjects less than 14 years old were categorized in the youngest group (51%), and those more than 14 years in the oldest group (49%). Measured by father's socioeconomic status, 35% were in the high SES group (categories 1–3 of the Graffar Scale) and 65% in the low SES group (categories 4 and 5 of Graffar Scale (1–3)).

Contingency tables and chi-square tests were used. Psychological symptoms and life satisfaction (Cantril ladder) were categorized in three groups. Feeling depressed or low was significantly associated with gender, age group and father's SES. Girls, adolescents in the older group and those whose fathers had low SES referred more frequently to feeling depressed or low than boys, the youngest adolescents and adolescents whose fathers had high SES (Table 1).

**Table 1**

Feeling depressed or low

<b>Differences between genders (%)</b>		
	Boys (n = 8 333)	Girls (n = 9 090)
At least once a week	10.2	18.9
Every week/every month	22.3	27.5
Rarely/never	67.6	53.6
$(\chi^2= 411.11; g.l. = 2, p<. 001). n=17\ 423$		
<b>Differences between age group (%)</b>		
	Youngest (n = 8 796)	Oldest (n = 8 545)
At least once a week	12.6	16.8
Every week/every month	19.7	30.4
Rarely/never	67.6	52.8
$(\chi^2= 407.26; g.l. = 2, p<. 001). n=17\ 341$		
<b>Differences between father's SES (%)</b>		
	High (n = 5 115)	Low (n = 9 391)
At least once a week	12.5	15.1
Every week/every month	27.4	24.2
Rarely/never	60.1	60.8
$(\chi^2= 29.28; g.l. = 2, p<. 001). n=14\ 506$		

Feeling irritable or bad tempered was significantly associated with gender, age group and father's SES. Girls and the oldest adolescents reported feeling irritated more often than boys and the youngest adolescents. More adolescents with low SES than those with high SES reported feeling irritated at least once a week (16% compared to 13.9%), but also more adolescents with low SES reported that they rarely or never felt irritated (53.6% compared to 50.2%) (Table 2).

**Table 2**

Feeling irritable or bad tempered

<b>Differences between genders (%)</b>		
	Boys (n = 8 369)	Girl (n = 9 072)
At least once a week	13.1	18.3
Every week/every month	31.4	32.5
Rarely/never	55.5	49.2
$(\chi^2 = 110.88; g.l. = 2, p < .001). n = 17 441$		
<b>Differences between age group (%)</b>		
	Youngest (n = 8 791)	Oldest (n = 8 569)
At least once a week	14.9	16.8
Every week/every month	27.1	36.9
Rarely/never	58.1	46.3
$(\chi^2 = 257.03; g.l. = 2, p < .001). n = 17 360$		
<b>Differences between father's SES (%)</b>		
	High (n = 5 116)	Low (n = 9 392)
At least once a week	13.9	16.0
Every week/every month	35.9	30.4
Rarely/never	50.2	53.6
$(\chi^2 = 49.38; g.l. = 2, p < .001). n = 14 508$		

Feeling nervous was also significantly associated with gender, age group and father's SES. Girls and oldest adolescents reported feeling nervous more often than boys and the youngest adolescents. Adolescents with low SES reported feeling nervous at least once a week more frequently than those with high SES, but simultaneously reported more frequently that they rarely or never felt nervous. Adolescents with high SES reported more often feeling nervous every week or at least every month (Table 3).

Life satisfaction was significantly associated with gender, age group and father's SES. Girls reported more frequently that they were unsatisfied with their lives compared to boys. The youngest adolescents were most likely to be very satisfied with their lives, and adolescents with high SES reported more frequently being very satisfied with their lives when compared to those with low SES (Table 4).

Results from the HBSC survey suggest that the majority of school-aged Portuguese adolescents (sixth, eighth and tenth grades) were satisfied with their lives and rarely or never experienced psychological symptoms. Nevertheless, there were relevant differences based on gender, age and father's SES. In general, boys, younger adolescents and adolescents with higher SES had higher life satisfaction. Girls, older adolescents and adolescents with low SES more frequently reported psychological symptoms such as feeling depressed or low, feeling irritable or bad tempered, and feeling nervous. It therefore seems that gender, age and father's SES can act as either risk or protective factors in mental health-related issues.

**Table 3**

Feeling nervous

<b>Differences between genders (%)</b>		
	Boys (n = 8 395)	Girls (n = 9 122)
At least once a week	19.2	29.6
Every week/every month	35.0	36.3
Rarely/never	45.8	34.1
$(\chi^2= 345.56; g.l. = 2, p<. 001). n=17 517$		
<b>Differences between age group (%)</b>		
	Youngest (n = 8 841)	Oldest (n = 8 593)
At least once a week	22.7	26.5
Every week/every month	32.3	39.1
Rarely/never	45.0	34.4
$(\chi^2= 206.09; g.l. = 2, p<. 001). n=17 434$		
<b>Differences between father's SES (%)</b>		
	High (n = 5 141)	Low (n = 9 437)
At least once a week	22.5	25.0
Every week/every month	40.2	34.8
Rarely/never	37.3	40.3
$(\chi^2= 42.98; g.l. = 2, p<. 001). n=14 578$		

**Table 4**

Life satisfaction

<b>Differences between genders (%)</b>		
	Boys (n = 5 245)	Girls (n = 5 525)
Unsatisfied	2.3	3.6
Satisfied	44.6	44.7
Very satisfied	53.1	51.7
$(\chi^2= 16.21; g.l. = 2, p<. 001). n=10 770$		
<b>Differences between age group (%)</b>		
	Youngest (n = 5 642)	Oldest (n = 5 128)
Unsatisfied	2.4	3.6
Satisfied	38.0	51.9
Very satisfied	59.6	44.4
$(\chi^2= 247.99; g.l. = 2, p<. 001). n=10 770$		
<b>Differences between father's SES (%)</b>		
	High (n = 3 065)	Low (n = 5 740)
Unsatisfied	2.4	2.7
Satisfied	38.6	46.1
Very satisfied	59.0	51.2
$(\chi^2= 49.14; g.l. = 2, p<. 001). n=8 805$		

Mental well-being and physical health are interrelated. Adolescents who report higher life satisfaction also have a better perception of their physical health (4). A number of personal and social issues besides gender, age and father's SES seem to be associated with health and happiness perceptions. Personal issues such as health-related behaviours, physical activity, food intake and risk behaviours seem to have more impact on health perceptions and physical complaints, while social issues like social relationships in significant life contexts, family, friends, classmates and school seem to have more impact on perceptions of happiness. Family affluence has a significant impact on feeling happy and on health perceptions (4). Several studies highlight the importance of these issues, which are described as protective factors (5,6).

## Migrant adolescents living in Portugal

Portugal is a country with historical relationships with some African nations and Brazil, countries that use Portuguese as the official language – the Comunidade dos Países de Língua Portuguesa (CPLP) [Community of Portuguese Language Countries]. Many migrants from those countries live in Portugal, most of them in very bad socioeconomic conditions and in specific neighbourhoods with poor hygiene, health and social conditions. Migrants are more prone to social and racial discrimination in several contexts, including school, workplace and community situations, and this often leads to mental and psychosocial problems.

Two waves of HBSC data (1–3) from 2002 (n = 6131) and 2006 (n = 4877), a total sample of 11 008 sixth, eighth and tenth grade students were looked at, to analyse migrant adolescents' positive health and health behaviours. Three per cent of adolescents living in Portugal come from Portuguese-speaking countries (African countries and Brazil) but do not hold Portuguese nationality. Bivariate analysis and simple associations were carried out between nationality and a set of positive health variables.

For all psychological symptoms (feeling depressed or low, feeling irritable or bad tempered and feeling nervous), statistically significant differences were found between Portuguese-nationality adolescents and adolescents who had come to Portugal from African countries or Brazil. Foreign adolescents also tended to feel more dissatisfied with their lives than Portuguese adolescents (Table 5).

### Focus groups

Focus groups were arranged to get a better insight into migrant adolescents', professionals' (teachers, psychologists, nurses and social assistants) and parents' perspectives. The groups explored people's opinions, attitudes and understandings about adolescents' positive health and health behaviours and the influence of personal, social and economic issues.

A total of 26 migrant Portuguese-speaking adolescents (African) aged between 13 and 19 years, 22 professionals (health and education professionals working with migrant (African) adolescents) and six parents (one mother and five fathers of migrants from African Portuguese-speaking countries) were included in this in-depth qualitative study. Nine groups were held (four adolescent groups, one parent group and four professional groups) in four areas of Lisbon. Taped focus group interviews were analysed, with categories defined and codification carried out. Illustrative examples of comments from each category are presented in Box 1.

Belonging to an ethnic minority group, specifically migrant adolescents coming from an African Portuguese-speaking country or Brazil, and having low socioeconomic status were factors linked with mental health problems and adopting risky behaviours. These are fundamental elements to address in health promotion research and interventions. At the current time, there is no specific intervention based on skills development, prevention of risky behaviours and health promotion with migrant adolescents (7–9).

Another health survey based on HBSC questions (10) included adolescents from severely deprived areas in the suburbs of Lisbon. A global sample of 1037 adolescents, mean age 15 years, participated in the survey: 24.3% were foreigners from African Portuguese-speaking countries.

Results confirmed what was suggested during the national surveys: migrant status and low social and economic status were associated and often coexist. Adolescents in the survey had higher levels of adopting risky behaviours and reported that they felt socially unsupported and unhappy. Other in-depth studies (11,12) have suggested the coexistence of poor physical health, risky behaviours (substance use) and poor mental health and have stressed the importance of social settings, school ethos and family–school links.

**Table 5**

Differences between Portuguese and foreign adolescents (CPLP)

<b>Feeling depressed or low (%)</b>		
	Portuguese (n = 9 771)	CPLP (n = 309)
Once a week	15.2	20.1
Every week/every month	25.5	18.8
Rarely/never	59.3	61.2
$(\chi^2= 10.21; g.l. = 2, p<. 006). n=10\ 080$		
<b>Feeling irritable or bad tempered (%)</b>		
	Portuguese (n = 9 789)	CPLP (n = 313)
Once a week	16.4	21.7
Every week/every month	33.5	28.8
Rarely/never	50.0	49.5
$(\chi^2= 7.17; g.l. = 2, p<. 028). n=10\ 102$		
<b>Feeling nervous (%)</b>		
	Portuguese (n = 9 811)	CPLP (n = 312)
Once a week	23.1	21.5
Every week/every month	36.4	28.5
Rarely/never	40.5	50.0
$(\chi^2= 12.13; g.l. = 2, p<. 002). n=10\ 123$		
<b>Life satisfaction</b>		
	Portuguese (n = 9 856)	CPLP (n = 314)
Unsatisfied	2.8	5.1
Satisfied	44.7	44.6
Very satisfied	52.5	50.3
$(\chi^2= 5.72; g.l. = 2, p=. 057). n=10\ 170$		

**Box 1. Examples from focus groups****Family**

- “My mother works a lot, she leaves home at 6 am and arrives home at night but she cares about us.” (Adolescent)
- “Most of them have single-parent families, mothers work a lot, and an older sister often takes care of the younger ones.” (Professional)
- “They tend to have large families, lots of kids, grandmothers, uncles, stepfathers ...” (Professional)
- “I cannot talk to my daughter; we have different concepts. I try to communicate with her and she always says that I am old-fashioned.” (Parent)

**School**

- “At school, we feel discriminated [against]. When we say that we live in this neighbourhood, everything goes wrong.” (Adolescent)

- “School it is not a protective factor. ... On the contrary, school seems to work like an exclusion factor, they tend to leave school too soon; it is a big problem.” (Professional)

- “Many times teachers build barriers against pupils, because they just don’t know what to do.” (Professional)

- “Violence is a big problem, not just in the street but inside the school.” (Parent)

#### Peer group

- “Friends are not important, I don’t have friends, I just have some people that I know.” (Adolescent)

- “They see the older ones breaking the social rules and they admire them. They want to be like them in order to be accepted, to feel integrated.” (Professional)

- “She always spends her leisure time with one friend or alone in her room.” (Parent)

#### Well-being

- “First they should take care of the younger ones, giving them places to play, to be happy, to feel good instead of engaging in violence, substance use, and other risky things.” (Adolescent)

- “The discrimination reinforces the negative image that they have about themselves ... they lose the hope that their life will ever be different.” (Professional)

- “Our children know that they have ‘broken legs’ since the beginning. ... They become very stressed because they do not have documents, first they don’t exist, and then they become delinquents.” (Parent)

#### Leisure time

- “The worst thing is when we do not have anything to do.” (Adolescent)

- “We do not have adequate structures for physical activities or leisure in the neighbourhood.” (Professional)

- “Our children became more and more connected with Internet, TV ... they are ‘addicted’ to the street.” (Parent)

#### Substance use

- “I feel more comfortable. It’s better to dance, and it’s better to talk with the girls.” (Adolescent)

- “Alcohol use is common ... many people abuse alcoholic drinks at home and in the community. That is the adolescent’s example.” (Professional)

- “Some adolescents left school, they have nothing to do. They traffic drugs, it is easy money ... but most of them do not use drugs.” (Professional)

- “We are always worried about our children. The problem is not the people from the neighbourhood; the problem is those who come from other neighbourhoods and want to buy or sell drugs.” (Parent)

#### Violence

- “Some boys ruin everything, break everything. They do not understand that it is important to have a good image.” (Adolescent)

- “They are aggressive among them, with the teachers, with parents and with themselves. It is difficult to understand and control them.” (Professional)

- “A black adolescent is kind of condemned. Many adolescents feel anger. We are raising delinquents, and we do not know what to do, or where to find help.” (Parent)

#### Sexual behaviours/HIV

- “We get information from friends and on the Internet, never from our parents. ... I feel ashamed if my parents talk about that. ... If we cannot learn at home, we should have sex education at school.” (Adolescent)

- “They start their sexual activity too young ... we have many pregnant adolescents ... pregnancy is kind of an alternative to poor schooling and poor school expectations.” (Professional)

- “All parents realize that HIV is a big problem, we and all society have to fight against that huge problem.” (Parent)

- “Sexuality is a taboo ... it is something that we cannot talk about ... but we should break down this wall.” (Parent)

## Trends from HBSC national surveys

Trends from the three waves of HBSC national surveys of school-aged children suggest that tobacco use is decreasing and alcohol (except for “getting drunk”) and drug use are stable. Youngsters seem to eat less healthily, diet more frequently and seem unhappier about their physical appearance. Physical activity seems to be increasing among youngsters in parallel with an increase in sedentary behaviours, such as “surfing” on the Internet, playing video games on TV and using live “chat” web sites.

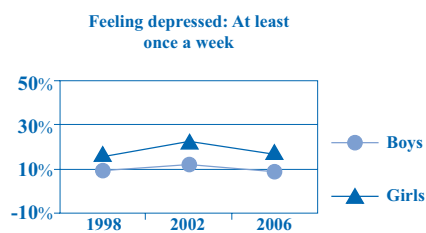
Violent episodes in schools (bullying) have tended to decrease slowly but steadily since the HBSC 1998 survey, especially among those with “victim” status. Students tended to perceive their health as being better and reported fewer psychological symptoms.

Analysis of the graphics in Fig. 1 distinguishes trends from the three HBSC Portuguese surveys in relation to gender and age group differences. Three items related to mental health were considered: feeling depressed/low; feeling irritable; and feeling nervous. The general profile indicates an increase in poor sense of well-being from 1998 to 2002, with a recovery in 2006.

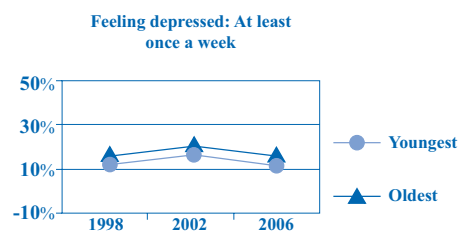
According to data from the 2006 survey (3), about half of the adolescents reported having professional health resources available within their schools (specific teachers, psychologists or other health professionals). The national aim is to ensure this number reaches 100% by the end of the current academic year.

**Fig. 1**

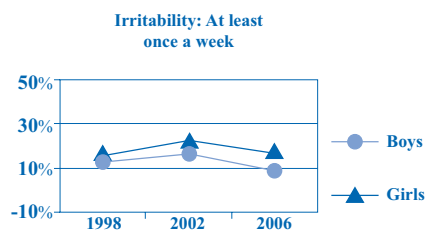
Trends in three HBSC Portuguese surveys by gender and age



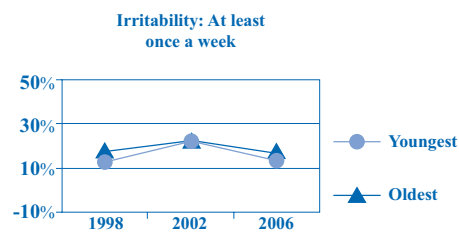
Boys: ( $\chi^2 = 47,57$ ; g.l. = 4,  $p < .001$ ). n=8 333  
Girls: ( $\chi^2 = 48,79$ ; g.l. = 4,  $p < .001$ ). n=9 090



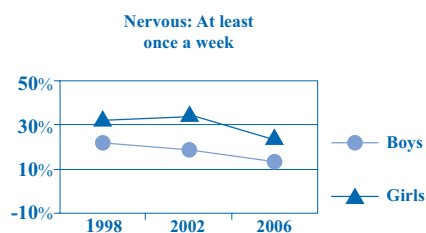
Youngest ( $\chi^2 = 53,09$ ; g.l. = 4,  $p < .001$ ). n=8 796  
Oldest: ( $\chi^2 = 45,68$ ; g.l. = 4,  $p < .001$ ). n=8 545



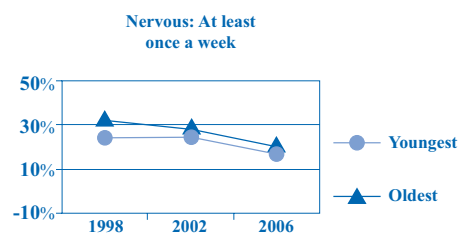
Boys: ( $\chi^2 = 83,64$ ; g.l. = 4,  $p < .001$ ). n=8 369  
Girls: ( $\chi^2 = 105,43$ ; g.l. = 4,  $p < .001$ ). n=9 072



Youngest ( $\chi^2 = 140,07$ ; g.l. = 4,  $p < .001$ ). n=8 791  
Oldest: ( $\chi^2 = 65,31$ ; g.l. = 4,  $p < .001$ ). n=8 569



Boys: ( $\chi^2 = 92,22$ ; g.l. = 4,  $p < .001$ ). n=8 395  
Girls: ( $\chi^2 = 65,91$ ; g.l. = 4,  $p < .001$ ). n=9 122



Youngest ( $\chi^2 = 92,95$ ; g.l. = 4,  $p < .001$ ). n=8 841  
Oldest: ( $\chi^2 = 72,82$ ; g.l. = 4,  $p < .001$ ). n=8 593



## Policy context and intervention

Portuguese studies (13) suggest the need for a global community intervention within adolescents' contexts (family, school, community) to promote the health knowledge and personal and social skills that will lead to healthy choices and lifestyles. The specific case of poor adolescents with mainly ethnic minority backgrounds who lack Portuguese language skills and face social exclusion and social problems should be addressed not only from the point of view of preventing risk behaviours, but also of promoting well-being, a sense of belonging, social support and inclusion (4–6,10–13).

Hobbies and leisure activities such as music, sports, drama, arts and dance are important parts of living and learning, emphasizing the importance of leisure to adolescents. Leisure-time activities have partly taken over the educational role formerly provided by schools and parents (14) and provide enriching opportunities for children to interact with peers (15). This suggests the relevance of a selective preventive intervention aimed at creating alternatives for young people to help them respond to issues such as social exclusion, feeling unhappy and poor interpersonal relationships in a positive way and enhance their search for well-being, personal competence and social participation.

### National health promotion proposal by GTES

The Ministry of Education created the GTES in 2005 to come up with proposals to ensure health education was included in the curricula of all schools in Portugal by 2007. The group had three senior researchers and university professors (one psychiatrist who coordinates the group, one health psychologist and a gynaecologist) and a career high-school teacher.

The preliminary GTES report was presented in October 2005, prescribing that health education would be compulsory across all schools and calling for students' and parents' active participation. The report stated that health education should be offered from first to ninth grade in all school subjects. It should be included within "areas curriculares não disciplinares" ["non-disciplinary curricular areas"], which consist of three elements: "project area", "tutored study", and "civic education". It was proposed that at least one of those areas should be devoted to health education and at least one hour monthly would focus on sexual education.

The report prescribed that health education should involve all students in an active way and should aim to develop their knowledge, autonomy, responsibility, ability to make sound individual choices and propensity for social participation. Four main priority intervention areas were identified:

- substance use
- sexuality, sexually transmitted infection (STIs) and HIV prevention
- nutrition and physical activity
- violence prevention and well-being/mental health.

Each school was asked to nominate a teacher to coordinate health education and promotion and liaise with parents and local health centres. It was recommended that all schools develop health committees in which pupils could voice their opinions while being supported by a teacher or health professional from the local health centre. This measure was made mandatory for all secondary schools. The 2006 HBSC survey reported 31% of schools having a health committee.

GTES has recommended that schools should develop strategies to promote inclusion to involve all pupils regardless of gender, age, special needs, social and economic status and ethnicity. This will help to prevent academic maladjustment and school failure and reduce school drop-out rates. One of the suggested strategies is to introduce workshops or school clubs to help pupils develop personal and social competencies and increase their sense of autonomy and participation.

Peer education and tutoring in health-relevant areas was recommended for twelfth-grade and university students. A significant example of how this recommendation has been enacted can be found in an initiative with a group of fourth-year Lisbon University medical students who were trained in sexual education and AIDS prevention during 2001. The idea now is to extend this strategy among adolescents in school settings; it is already in operation throughout the five regions of Portugal

through an association (the *Comunidade contra a SIDA* [Community against AIDS]) created to progress the strategy. GTES visits to local projects in schools throughout Portugal have found that several are implementing the model of supporting twelfth-grade pupils to peer-tutor younger peers, a model GTES has now adopted as good practice (16).

The Portuguese Institute for Sports, the National Agency against HIV/AIDS and the National Agency against Drugs and Dependencies are close partners in the current GTES proposal, adding their institutional efforts to promoting this new national policy.

### **National Agency against Drugs and Drug Addiction**

The National Agency against Drugs and Dependencies has a solid history of collaboration with the Ministry of Education and believes that partnership and coordinated policies lead to better results.

National Agency against Drugs and Dependencies guidelines complement GTES guidelines. They target 11–14-year-olds and focus on increasing academic achievement, strengthening links between students and schools, reducing the probability of school failure and increasing family and community involvement. The Agency also collaborated with GTES on developing a manual for teachers and pupils dealing with substance use and well-being.

### **National Agency against HIV/AIDS**

The National Agency against HIV/AIDS, in coordination with GTES policy, developed a competition, “Learning to prevent HIV/AIDS”, which challenged students and teachers from basic and high schools to develop materials promoting HIV/AIDS prevention. The challenge of healthy competition and the incentive of winning a school or class prize encouraged 189 submissions from 87 different schools, involving 2227 pupils, during 2006. A judging panel (which included the GTES National Coordinator) selected 24 works to go on to a second phase. Those successful groups were asked to make a ten-minute presentation to the judges and fellow competitors during a public session. Evaluation of submissions was based on their originality, content, communicative efficiency and applicability.

### **Physical education promoting positive health and mental health**

Physical education, as defined in the official curriculum, not only influences physical health, but also affects quality of life and general sense of well-being. A Portuguese Institute for Sports project specifically designed for Portuguese schools aims to change lifestyles and promote health through increased physical activity and sports participation. The Institute and the *Faculdade de Motricidade Humana* [Faculty of Human Movement] are working with GTES to provide every school with a fitness-assessment tool (the *Fitnessgram* (17)) with instructions on use and guidelines on evaluating interventions.

### **Call for new projects and new synergies: the GTES proposal**

A call was put out in 2006 for schools to apply to GTES for budgetary support to act as models for health education and promotion in schools. Successful applicants agreed to comply with guidelines issued by GTES, the National Agency against Drugs and Dependencies, the Portuguese Institute for Sports and the National Agency against HIV/AIDS and to be supervised and evaluated by GTES. One-hundred and eighty six *agrupamentos* [groups of schools] applied and were supervised for one academic year. The number of schools in each *agrupamento* varied between 5 and 40, depending on population density.

The ministries of education and health signed a protocol on better interaction between schools and local health centres after the first GTES report was published in 2005 (16), with a responsible person (a medical doctor) appointed by the Ministry of Health to oversee implementation. GTES provided planning support, supervision and evaluations in schools through national and regional teachers’ meetings, regional education directorate meetings and a series of visits to schools throughout the country. A survey was carried out in May 2007 to fully evaluate the process.

## Evaluations of health interventions in schools (2004, 2006 and 2007) (18–20)

### Evaluation of the actions in basic schools (EB2, 3) in promotion of health and well-being, previous to GTES intervention (2004) (20)

#### Schools and subjects

Two-hundred and fifteen schools were involved (37%), but the actual percentage was considerably higher (83%) as some were in fact groups of schools. Among the schools, 120 (63%) were involved in the ENHPS project. Students were the main target group within health promoting projects (82%); the remaining 18% involved adults (parents and teachers) or a combination of adults and students.

The number of students involved in the projects varied between 9 and 600; the higher the student participation, the higher the percentage of respondents (the average respondent rate being 49%).<sup>1</sup> Schools reported that students were involved in defining project aims and specifying actions in most of the projects (60%).

#### Methodology

A pre-diagnostic evaluation was used in 69% of the schools (157), mostly based on a previous report (55%). Of evaluation approaches used, 42% had adopted a quantitative evaluation and 89% a qualitative one. Most projects were carried out over 31 or 32 weeks, corresponding to the academic year. The projects focused on activity in the classroom (87%), during breaks (34%) or after school (52%) and, less frequently, during holidays or weekends (13%).

#### Types of intervention

Different kinds of intervention were used in the projects, including health workshops (56%), thematic workshops (85%), clubs (31%), personal and social competencies promotion (31%), sports activities (26%) and health committees (13%). Schools reported that 53% of teachers had previous training in these areas and 32% had supervision.

The content areas for health promotion interventions are set out in Table 6.

**Table 6**

Content areas for health promotion interventions

Substance use	57%
Food, hygiene, oral hygiene, body shape	56%
Well-being, sports	21%
Sex, HIV/AIDS and others	66%
Violence, social exclusion and safety	28%
Mental health	15%

#### Results

Between 2000 and 2003, 20% of the schools reported involvement in projects related to promoting positive health; 50% were involved in the ENHPS project, and half of teachers involved had had health promotion training.

<sup>1</sup> Eighty-nine schools did not answer this question.

The schools reported positive results related to their evaluation criteria. Risk behaviours had reduced (36%), pupils' participation had increased (56%), there was better communication among pupils (23%) and increasing levels of self-esteem and autonomy (17%) were noted.

There were also some negative results, however. These related to teachers being overloaded (4%), lack of specific support (21%), timetable incompatibility (14%), lack of ministry guidelines (4%), lack of motivation of pupils (16%) and lack of specific training for teachers (4%).

Evaluation of health promoting actions in basic and secondary schools (EB2, 3+ secondary)<sup>2</sup> included in the 2006 HBSC national survey one year after the GTES intervention and two years after the former evaluation

The 2006 HBSC survey included 125 randomly selected schools (more than 10% of the total number of schools). Of those, 78 (63%) answered a specific questionnaire aimed at identifying school health promoting practices.

Forty-four per cent of schools were grouped. These *agrupamentos* had, on average, 14 schools, with a maximum 55, and included all grades from kindergarten to secondary level. The average rate of school failure was 18.5%, with a maximum of 48%. Health promoting facilities in the schools included canteens (94%), sports facilities (74%), a health committee (31%) and clubs (73%).

Teachers (91%), pupils (97%) and parents (62%) had a “good” to “excellent” perception of health promotion activities. Contents of health promotion projects included substance use (64%), nutrition (87%), physical activity (67%), hygiene/body image (58%) and sexuality/HIV prevention (86%). Strategies employed included active methodologies (63%), classes (62%), projects (37%), lectures from external guests (89%) and online programmes (49%). Some schools reported regular disciplines in which health topics were a key feature, such as physical education (65%) and natural sciences/biology (90%).

“Non-disciplinary curricular areas” were used to promote interventions in the area of health promotion (69% civic education, 65% project area and 27% tutored study). Thirteen per cent of schools reported participation of families and forty-four per cent that all pupils got information and training in health promotion. Only 4% of the schools reported a specific budget for health promotion activities, with 28% having a psychologist, 1% a nurse and 6% other therapists or social workers.

Overall, there was reported growth in the use of non-disciplinary curricular activities and increases in numbers of health rooms. Teacher training was not a major reported difficulty, but resource optimization, management and sustainability were identified as problematic.

Evaluation of health promoting actions in basic and secondary schools (EB2, 3+ Sec)<sup>2</sup> included in the 2006 HBSC national survey two years after the GTES intervention and three years after the former evaluation

The GTES team completed their activities on 31 August 2007, after the final evaluation of the health education programme. The Ministry of Education proceeded to decide on guidelines and recommend a national structure to implement the programme.

The evaluation methodology was based on previous international experience in Canada and Australia (21–28) and covered the implementation process of the national programme for each of the four selected areas: physical activity/nutrition; sexual behaviour and sexually transmitted infection prevention; substance use; and violence/mental health. A final instrument was distributed to all Portuguese schools (basic and secondary in continental Portugal) in May 2007.

School principals sent responses to an online questionnaire to the Ministry of Education/Direcção-Geral de Inovação e de Desenvolvimento Curricular (DGIDC) [Director-General of Innovation and Curricular Development] and Gabinete de Informação e Avaliação do Sistema Educativo (GIASE) [Bureau for Information and Evaluation of the Education System]. A data set was produced using the statistical analysis software SPSS and analysed; the procedure used by GIASE considered “missing values” as a separated category, which explains why lines do not add up to 100%.

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<sup>2</sup> Pupils aged between 10 and 18 years who attend the basic school levels 2 and 3 and secondary schools.

**Table 7**

State of art of health education and promotion in Portuguese schools

<b>Priority intervention areas of health promotion</b>	
Physical activity/nutrition	86%
Substance use	20%
Sexual education	76%
Violence/mental health	9%
Other	3%
<b>Discipline(s) in which health promotion content was presented</b>	
Portuguese language	24%
Foreign language	20%
Physical education	81%
Physics and natural sciences/biology	92%
Others	47%
<b>Non-disciplinary curricular areas and health education and promotion</b>	
1. Project area	89%
2. Tutored study	31%
3. Civic education	92%
<b>School facilities</b>	
Sports facilities	81%
Canteen	95%
Health committee	41%
Clubs	83%
<b>Schools' general functioning (current practice)</b>	
School liaises with the community	61%
School is a safe, pleasant and sheltering place	90%
School values pupils' and parents' participation	89%
Teachers get adequate training on health promotion issues	56%
<b>Pupils' comprehension adequate to their age and culture (current practice)</b>	
Nutrition	82%
Physical activity and leisure	87%
Mental health	23%
Sexual health and sexual behaviour	62%%
Substance use	77%
Friendships and social support	50%
Personal and cultural identity	45%
Bullying	18%
<b>Non-teaching staff have specific training in:</b>	
Bullying	54%
Nutrition	49%
Alcohol use	32%
Tobacco use	34%
Drug use	25%
Risky sexual behaviour	23%
Indiscipline	52%
No specific training	15%

## Sample

The total for Portuguese basic and secondary schools (B2+3 and secondary) was 1219. The online response rate was 96% (1166 schools), producing a final valid sample of 1086 (corresponding to 89% of the initial sample).

Seventy-nine per cent of schools reported that their “school project” included health promotion. Pupils’ adherence to the projects was either “good” or “very good” in 71% of schools, and teachers’ adherence was “good” or “very good” in 61%. Parents’ adherence was lower at 13% “good” or “very good”. Physical activity contents were regularly addressed in 83% of schools, nutrition in 94%, substance use in 72%, and sexual education in 87%. Other findings are presented in Table 7.

## **Preliminary highlights**

A rough comparison can be made between the results of the School Principals’ Survey held in January 2006, the HBSC survey carried on by the Portuguese HBSC team in 2006 (3) and the last nationwide survey by GTES on behalf of the Ministry of Education in May 2007. Analysis reveals that:

- 13% of parents were involved in school life (no change from 2006);
- sports facilities increased from 74% to 81%;
- canteen provision increased from 94% to 95%;
- “health rooms” provision increased from 13% in 2001, to 31% in 2006, and to 41% in 2007;
- physical activity content of curricula increased from 67% to 83%, with school sports in 88% of all schools;
- nutrition element of curricula increased from 87% to 94%;
- sexual education, sexually transmitted infection and HIV prevention curricular contents increased from 86% to 87%, with 93% of all pupils reported to have been included in training activities in school;
- substance use contents increased from 64% to 72%, with 87% of all pupils included in preventive actions on drug use and 90% included in preventive actions on alcohol and tobacco;
- health education in physical activity classes increased from 65% to 81%;
- health education in biology classes increased from 90% to 92%;
- health education in “project area” increased from 69% to 89%;
- health education in “tutored study” increased from 27% to 31%; and
- health education in “civic education” increased from 69% to 92%.

Large increases were seen not only in facilities to promote pupils’ health (such as the provision of health rooms), but also in initiatives designed to present and discuss health issues with pupils. Significantly, the increases have been achieved within the regular school curricula (physical education and biology classes) and also in the non-disciplinary curricular areas (project area, tutored study and civic education), which increases the chances of the changes becoming fundamental parts of school culture and being sustainable over the longer term.

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## **Lessons learned**

Promotion of protective factors should be the essence of health promotion. Preventive work must focus on individual life contexts to achieve an effective decrease in risk-taking behaviours, making best use of available resources and promoting the development of personal and social competencies. Individuals with these kinds of abilities have a greater capacity to adapt to different situations and to deal with adversity (5,6,13).

Having special needs or living with a chronic disease are factors potentially linked with mental health problems and greater risk-taking behaviours. Research confirmed that healthy lifestyles can be a protective factor against chronic disease in relation to conditions such as type 2 diabetes in adulthood, and there is evidence that it can have a similar effect among adolescents (29).

Belonging to an ethnic minority, specifically migrant adolescents coming from an African Portuguese-speaking country and Brazil, and having low socioeconomic status are also linked to mental health problems and greater risk-taking behaviours. Low socioeconomic status among young people from ethnic minority communities is a fundamental factor to address in health promotion research and interventions. It is believed that this issue must be tackled mainly from the perspective of promoting and assuring school success as the only way to stop a typical pattern of “poverty→social exclusion→school failure→health-compromising behaviours→school dropout→under or unemployment→social exclusion→poverty” (7–10,13).

Finally, it must be stressed that holding qualitative focus groups with young people is very important in giving them a platform from which to air their views and concerns.

The authors are now in a position to make the following recommendations.

1. School and leisure time are good starting-points for cross-cultural and intercultural health promotion. Adolescents, parents, schools, peer groups and the wider community must be involved in the process.
2. Social and personal skills promotion programmes have a place in building on positive aspects of health and lifestyle as a way to help adolescents to:
  - identify and solve problems
  - manage interpersonal conflicts
  - identify and manage emotions
  - develop interpersonal communication skills
  - assert personal rights
  - resist peer pressure
  - choose and maintain a healthy lifestyle.
3. There is a need for global community interventions within adolescents’ life contexts (family, school, community) to promote personal and social skills. The final aims of interventions should be the promotion of well-being, competence and autonomy, a personal sense of responsibility, belonging and personal achievement, and social participation and commitment. Attention should be paid to developing partnerships between schools and families (the research suggests weak family involvement in their children’s school life).
4. Particular attention has to be paid to adolescents living in poor neighbourhoods and who come from ethnic minorities, as there is a greater danger that they will suffer social exclusion, discrimination, stigmatization and challenging social problems, all of which are related to the development of mental health problems. The same was stressed for pupils with chronic diseases, special education needs or special health needs.
5. All professionals involved need adequate skills and training to be aware of and to meet the specific needs of target populations.
6. Biology and physical education teachers, psychologists, nurses, social workers and school doctors seem to have been selected to join efforts to meet pupils’ needs and promote their health and well-being. But every teacher and school-related professional should have a specific training that includes health issues, either during undergraduate or postgraduate studies or as part of lifelong learning.
7. Networking and reorganization of services and resources are necessary. A permanent grant is to be awarded to every school annually; its use will be systematically evaluated through cost–benefit analysis.
8. The evaluation carried out in Portuguese schools in May 2007, from which only preliminary results have been presented, is strongly recommended to be repeated yearly to properly address school needs in the area of health promotion and to monitor interventions.



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