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Health behaviours among adolescents in Romania: Health Behaviour in School-aged Children (HBSC) study 2018

Research report



ABSTRACT

The 2018/2019 cohort marks its 15 years of her Health Behaviour in School-aged Children (HBSC) study in Romania. It is one of the most ambitious initiatives aimed at understanding the developmental trajectories of health and well-being indicators in 11-, 13- and 15-year-old, tracking the evolution of these indicators with each four-year data-collection cycle. The 2018 data bring both bad and good news regarding the health and well-being of adolescents. First, social support remains relatively stable compared to previous years, except for perceived peer support, which diminishes, and perceived school pressure, which increases. Generally, perceived support from parents, peers and teachers decrease with age. Worrying is the facts that, with age, life satisfaction and well-being get worse, for both genders: less than half of 15-year-old adolescents are generally satisfied with their lives. Simultaneously, there are continuous increases in emotional problems from 11 to 15, especially in girls. Half of the adolescents of all ages meet the recommendations of dental hygiene (twice a day). Physical activity levels are lower than they were in 2014, while sedentary behaviours are on a steady rise. On the positive side, overweight and obesity rates remain constant from 2014, with only a slight increase in girls but a decrease in boys. Bullying and violence are on a decreasing slope and, for the first time, insight is provided into the potential spread of cyberbullying. Similarly, fewer adolescents (compared to 2014) start their sexual life, but condom use is on a descending path for boys while on the rise for girls. Social inequalities continue to have considerable influence in some of the health and well-being indicators, especially for perceived social support, life satisfaction and some health behaviours, all generally favouring more economically affluent adolescents. For risk behaviours, the evidence is mixed: there is higher engagement with substance and alcohol use in adolescents with higher social status, but at the same time, the more affluent are more likely to engage in protective behaviours (such as using condoms during intercourse). The HBSC international study gives voice to the younger generation and brings their perceptions, views and worries regarding their health and well-being to centre stage. The wish is that their voices find echoes in the public health agenda of experts and politicians.

Keywords

ADOLESCENTS
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HEALTH BEHAVIOURS
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Foreword

Childhood and adolescence are important periods of time in people's lives. Good health and well-being at this age can be a passport for good development in the future.

Knowing what the young generation needs in terms of health behaviour helps us to build tailored health education policies and interventions in nutrition, substance abuse, mental health and many other areas.

That is why the Health Behaviour in School-aged Children (HBSC) study, following the experiences of young people for more than 35 years in many countries around the world, is an extraordinary tool for putting things in perspective for decision-makers and supporting them in shaping the future for the next generations.

Miljana Grbic

Head of the WHO Romania Country Office

Preface

To know and really understand the emotional, behavioural and social dynamics of adolescents' ethos is one of the major endeavours of health psychology. Knowledge would be futile if limited to descriptions without providing evidence and directions to support harmonious transitions for adolescents coming of age.

What really are the differences between 11-, 13- and 15-year-olds and how do these differences translate in terms of emotions, behaviours and beliefs? What about gender differences? Have these changed during the last four years or over the past 14 years and, if so, how? Are Romanian adolescents similar or different from those living in other countries and regions of Europe? Are they affected by Romanian socioeconomic inequalities and, if so, how? How much do they enjoy school and how pressured do they feel by schoolwork? How well do they get along with their parents? How happy are they with their lives and health?

These are only a sample of the questions addressed by the present report, with the aim of providing public health and education experts with data to ground and generate prevention and remediation of problematic dimensions and promote the health and well-being of all adolescents.

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Introduction



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The Health Behaviour in School-aged Children (HBSC) study represents one of the first attempts in international research to systematically investigate the health behaviours of children and adolescents. The success of this initiative has been confirmed by the gradual increase in the number of countries included in the study, from three in 1983 to 41 in 2005; currently, the HBSC network amounts to 49 member countries.

The HBSC study is conducted in scientific collaboration with the WHO Regional Office for Europe Child and Adolescent Health programme, while international coordination of research, methodology and analysis of data collected from the 49 member countries is provided by the Child and Adolescent Health Research Unit of the School of Medicine at the University of Glasgow, Scotland, United Kingdom and by the Department of Health Promotion and Development at the University of Bergen, Norway. These characteristics explain why the research is described as a HBSC/WHO collaborative cross-national study.

HBSC surveys have been carried out regularly every four years throughout the last three decades. Interest in HBSC from the international scientific community and among policy-makers involved in developing public policies for the health and education of children and adolescents has increased considerably. Public policies in numerous countries are developed by specialists based on data provided periodically by HBSC surveys.

Romania became a member of the HBSC network in 2004 after completing a systematic and detailed two-year assessment of the institutional capacity and professional expertise of the research team of the Health Psychology Laboratory of the Babeş-Bolyai University, Cluj-Napoca, led by Professor Adriana Băban. HBSC data have been collected in Romania in 2006, 2010, 2014 and 2018. This enables analysis of the current situation regarding the health behaviours of adolescents and identification of evolutionary trends in these dimensions between 2006 and 2018.

The importance of adolescent health means the accumulation of scientific records regarding the social, family, school and group context of health/risk behaviour is relevant not only for epidemiological purposes, but also for practical application. The international, regional and national dataset contributes to the development and implementation of programmes for health promotion and the reduction of risk factors for diseases and accidents among young people.

The HBSC study has the following objectives:

1. studying the health and well-being of adolescents (11-, 13- and 15-year-olds) in growing, family, school and social contexts;
2. assessing the physical, emotional, behavioural and social dimensions of health and well-being;
3. measuring risk factors and health-promoting factors; and
4. informing public policies and educational and social practices to improve the health, well-being and lives of young people, who are the adults of the future.

Gathering self-reported data submitted by members of the target groups (11-, 13- and 15-year-old adolescents) enables the HBSC study to:

- collect descriptive data at national level (prevalence, intensity, frequency, initiation, duration) regarding the extents of emotional, behavioural and social health and well-being;
- highlight age differences regarding the evaluated dimensions;
- emphasize gender differences and the intersection between age and gender;

- identify differences induced by socioeconomic inequality;
- understand positive and problematic dimensions among the study's target population;
- allow comparative analysis of data evolutionary trends (every four years);
- allow comparative analysis across European countries and regions;
- establish a country profile regarding key dimensions of adolescents' health; and
- develop educational, social and health policies and services for adolescents based on scientific data.

Unlike other studies, which single out and pursue one or several dimensions of the health of adolescents (with a predilection for those with negative connotations, such as smoking, alcohol and drug use, and negative emotions), the HBSC study adopts a holistic and ecological approach to adolescents in their specific life contexts, incorporating both positive health and risk dimensions. It provides data (based on adolescents' perceptions) on the following categories and health dimensions.

- Social context:
 - family (demographic data; communication; support; socioeconomic status)
 - school (attitude towards school; school stress; teachers' and classmates' support)
 - group of friends (support provided by friends; electronic communication with them).
- Health and well-being:
 - life satisfaction
 - perception of health states
 - somatic and psychiatric symptoms
 - weight and body image
 - accidents and injuries.
- Health behaviours:
 - breakfast consumption
 - fruit and vegetable consumption
 - soft-drinks consumption
 - eating with the family
 - physical activity
 - oral health.
- Risk behaviours:
 - smoking
 - alcohol consumption
 - cannabis consumption
 - sexual behaviour
 - aggressive behaviour (involvement in fighting)
 - harassment, intimidation (bullying)
 - weight-reduction behaviours.

The method of data collection in the study is through a questionnaire, so data are self-reported by young people. This presents limitations to the study, but the questionnaire evaluation method is used widely across many areas, such as public health and health psychology. Arguments to support HBSC data as proper scientific records are:

- the large number of respondents (over 220 000 at international level and over 4500 nationally);
- nationally representative sampling;

- elimination of questionnaires that were not validated by researchers;
- similarities across regions and areas;
- common international differences in age and gender;
- country-specific development in data-gathering in the four-year intervals between surveys; and
- voluntary participation of pupils.

HBSC data obtained from cohorts of pupils in Romania from previous research were incorporated into the international reports and published by WHO, the most recent being *Growing up unequal: gender and socioeconomic differences in young people's health and well-being*, published in 2016. Their purpose is to stimulate the adoption of as many practical measures as possible to promote the health of children and adolescents.

Reference

Inchley J, Currie D, Young T, Samdal O, Torsheim T, Augustson L et al., editors. *Growing up unequal: gender and socioeconomic differences in young people's health and well-being*. Copenhagen: WHO Regional Office for Europe; 2016 (Health Policy for Children and Adolescents, No. 7; <http://www.euro.who.int/en/publications/abstracts/growing-up-unequal.-hbsc-2016-study-20132014-survey>, accessed 7 May 2020).

HBSC research methodology



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The HBSC study requires the establishment of rigorous quality standards for the questionnaire development and adaptation methodology, respectively the data-collection and analysis procedures (Smith et al., 1992). Consequently, the quality of the conclusions, validity and accuracy is (and was) one of the main concerns of researchers involved in the HBSC project (Harkness, 1999; Lynn, 2003).

The different scales of the questionnaire have been undergoing a broad validation process since the HBSC 1997/1998 survey, with the aim of continuously improving data quality. Validation and verification studies of the scales included in the questionnaire have been conducted, the results of which have been published in scientific journals on various current topics, including bullying (Smith & Robinson, 2019; Wolgast & Donat, 2019), risk behaviours (Stevens, 2019), physical activity and what it is linked to (Tesler et al., 2019; Vandendriessch et al., 2019), sexual behaviour (Runarsdottir et al., 2019), and migration and lifestyle (Rouche et al., 2019) (for a detailed list of publications, see the HBSC website (HBSC, 2020).

This chapter presents how the rigorous methodological criteria developed for the HBSC 2018 study were implemented in the research conducted in Romania. It features:

- the methodology for drafting the questionnaire in Romania
- the methodology for study-participant selection and the data-collection procedure
- the data analysis-procedure.

Questionnaire design

The characteristics of the target population and the method of data collection were taken into account in drafting the content of the questionnaire. The complex research instrument focused on pupils aged 11, 13 and 15 and complied with international methodological standards for drafting a self-administered questionnaire in the context of group application (in this case, a class of pupils) (Roberts et al., 2007).

The questions assessed the following dimensions of pupils' lives that are relevant to health and well-being:

- family context;
- school context;
- group of friends;
- social context;
- health behaviours (diet, physical activity and oral health);
- risk behaviours (smoking, alcohol consumption, drug use, sexual behaviour, altercations and harassment, strategies for losing weight, and injuries); and
- mental and physical health (life satisfaction, perception of their own health, positive health, body image, weight, somatic and emotional distress, and use of medication associated with them).

In compliance with international standards, the questions were divided into three categories:

- mandatory questions (49 items) are included in each partner country's questionnaires to ensure the comparability of obtained data not only among countries, but also between the intervals of questionnaire use (highlighting the positive or negative changing trends of each dimension);
- after the mandatory questions, depending on the decision of the research team in any given country, optional question packages the address specific areas can be included in the questionnaire; and

- in the last category, additional country-specific questions that the research group believes are of national relevance can be included.

The questionnaires used for the three age categories (11, 13 and 15 years) differ in the number of questions included (and therefore the number of items). All questions were included in the questionnaires given to 15-year-olds, while those for 13- and 11-year-olds did not include questions that did not represent a relevant topic for these age categories (for example, the questionnaire for 11-year-olds did not include questions about sexual activity or drug use).

The questionnaire was translated from English to Romanian by two specialists from the HBSC Romania team; it was then subjected to a retroversion procedure (from Romanian to English), the result undergoing final validation by specialists of the HBSC international team.

The next step was pilot-testing the questionnaires with small groups of pupils of aged 11, 13 and 15 and further collecting qualitative information on understandings of the meaning of questions and words, the degree of difficulty and any ambiguities in expression. Following this, (minimal) changes were made in the wording of the questions. The final versions of the HBSC Romania questionnaire for the three age categories were produced only after pilot-testing and receiving assent from the HBSC study methodology specialists of the international coordination team.

Sample description and data-collection procedure

The sample size was set at 1500 pupils in each age category. An oversampling strategy was adopted to counterbalance refusals to participate and non-replies, so the initial sample size was set at 2200 pupils per age category. The sampling unit was the school, the selected schools being divided according to the layering criteria, with random selection being applied within each layer, depending on the layer's share in relation to the population. The sample structure was based on data received from the Ministry of National Education. The main sample-layering criteria were: development regions (north-east, south-east, south, south-west, west, north-west, centre and Bucharest-Ilfov) and type of area/settlement (urban and rural). Within these layers, the sample included 11 units of different sizes (according to the number of pupils) in public and private education, respecting their share of the national distribution of education institutions.

According to this sampling design, 186 schools from 39 counties of the eight development regions were invited to participate, comprising 6600 pupils (2200 per age category) in 298 classes. In total, 160 schools accepted the invitation, amounting to 5683 pupils (N = 1867 for 11-year-olds, N = 1988 for 13-year-olds and N = 1828 for 15-year-olds) in 251 classes.

After validating the questionnaires, the blank or incorrectly completed questionnaires were removed, including those from participants who were not in the established age groups. The final age-category sample therefore was N = 1481 for 11-year-olds, N = 1521 for 13-year-olds and N = 1565 for 15-year-olds (total sample N = 4567 pupils).

The study was approved by the Research Ethics Commission of the Babes-Bolyai University, Cluj-Napoca, based on the available research protocol. Competent departments of the Ministry of National Education and the Ministry of Health were also informed of the HBSC 2018 research and written approvals were obtained.

Based on these written approvals, county inspectorates for education were contacted to request an agreement in principle to conduct the 2018 survey. After these were secured, field operators

requested approval from the selected schools' boards. Final approval to enter classrooms was given by the schools' principals and relevant class teachers. Approval from parents and pupils was obtained through providing information on the objectives of the survey; pupils or parents who did not want to participate had the right to refuse to fill in the questionnaire, while those who completed questionnaires were assumed to have given passive consent to participation.

Data collection was carried out by 39 field operators trained for the task through methodological training courses on the relevant dimensions of the HBSC 2018 research (addressing school principals on the basis of approvals, selecting school classes, data-collection in classes, and managing the questionnaires to respect the ethical principles of participation and anonymity of respondents). Field operators' activity was monitored continuously by experts who contributed to defining the theoretical sample and the data-collection protocol. The validity of the questionnaires was verified by contacting the principals/teachers from the schools/classes in which the survey was administered.

Based on the designed sample protocol and by complying with a rigorous methodology for data-collection and verification, the obtained samples were nationally representative of the population of school children from the age categories (11, 13 and 15).

Data-analysis procedure

Special attention was paid throughout the HBSC 2018 survey to primary processing (the so-called cleaning procedure) and secondary statistical analysis of data, which implies making transcultural comparisons. Such an approach requires the creation of standardized databases. The data collected throughout the research were introduced into SPSS databases (separate databases for each age category) developed by the Research Methodology Development Group. To avoid artefacts, the process of introduction for 10% of the total data was carried out twice, thereby allowing the opportunity for high-quality control of the introduced data.

Before entering data into databases, a group of experts defined the relevant database variables and configured them to be compatible with requirements formulated in the codebook designed by the HBSC Data Management Centre (DMC) of the University of Bergen, Norway. The completed databases were sent to the DMC and were accepted only on the basis of detailed documentation from the Romanian research team, which included a description of the sampling and data-collection procedure, response rate, criteria for sample layering, observations and possible deviations from the international research protocol. All initial verification procedures for the databases, such as eliminating inconsistencies in answers and conflicting responses, were conducted by the HBSC Romania Research Team. Subsequently, the database was subjected to a secondary phase of verification and data-cleaning by the HBSC research team from the DMC to ensure their transcultural comparability (by, for instance, eliminating participants who exceeded the age groups and substituting missing data).

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Social context



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Family

Introduction

Various environmental factors are known to influence adolescents' development, one of which is the family environment. Parent–adolescent communication and parental support have great potential in shaping adolescent behaviours (Bandura, 1977; Qu et al., 2015). Adolescents who have a positive relationship with their parents engage less in risk behaviours than those who perceive such relationships as difficult (Qu et al., 2015). The literature systematically illustrates the family's protective role in preventing and reducing emotional problems, starting from childhood and throughout adolescence (Auerbach et al., 2011; Rueger et al., 2011).

Measuring instruments

The questions selected for the questionnaire referred to family demographics (including family structure), family communication and perceived support from the family (Table 1).

Table 1. Questions: family

Topic	Questions	Comments
Family demographics	Place of birth In which country were you born? In which country was your mother born? In which country was your father born?	
	Family structure All families are different (for example, not all children live with both parents. Sometimes they live with only one parent or live with one parent at a time). Please answer this question by thinking about the house where you live most of the time and mark the box (boxes) next to the people who live there.	
	Employment status of parents Does your father have a job? Does your mother have a job?	The response options were: yes; no; I don't know; I don't know or see my father/mother.
Family communication	How easy it is for you to talk about the things that concern you with the following people: <ul style="list-style-type: none"> • father • stepfather or mother's partner • mother • stepmother or father's partner? 	The response options were: very easy; easy; difficult; very difficult; that person does not exist; I do not spend time with that person. The percentage of adolescents who stated that it is easy or very easy to communicate with each of the four persons was reported.
Family support	My family is really trying to help me. I get from my family the help and emotional support that I need. I can talk about my problems with my family. My family is willing to help me make	The available answers were given on a Likert scale with seven response options, expressing the extent to which they agreed or disagreed with each of the statements, ranging

Topic	Questions	Comments
	decisions.	from 1 (strongly disagree) to 7 (strongly agree). The average of the four items represented the composite score for family support. The results present the percentage of adolescents who reported high family support, meaning a value above 5.5.

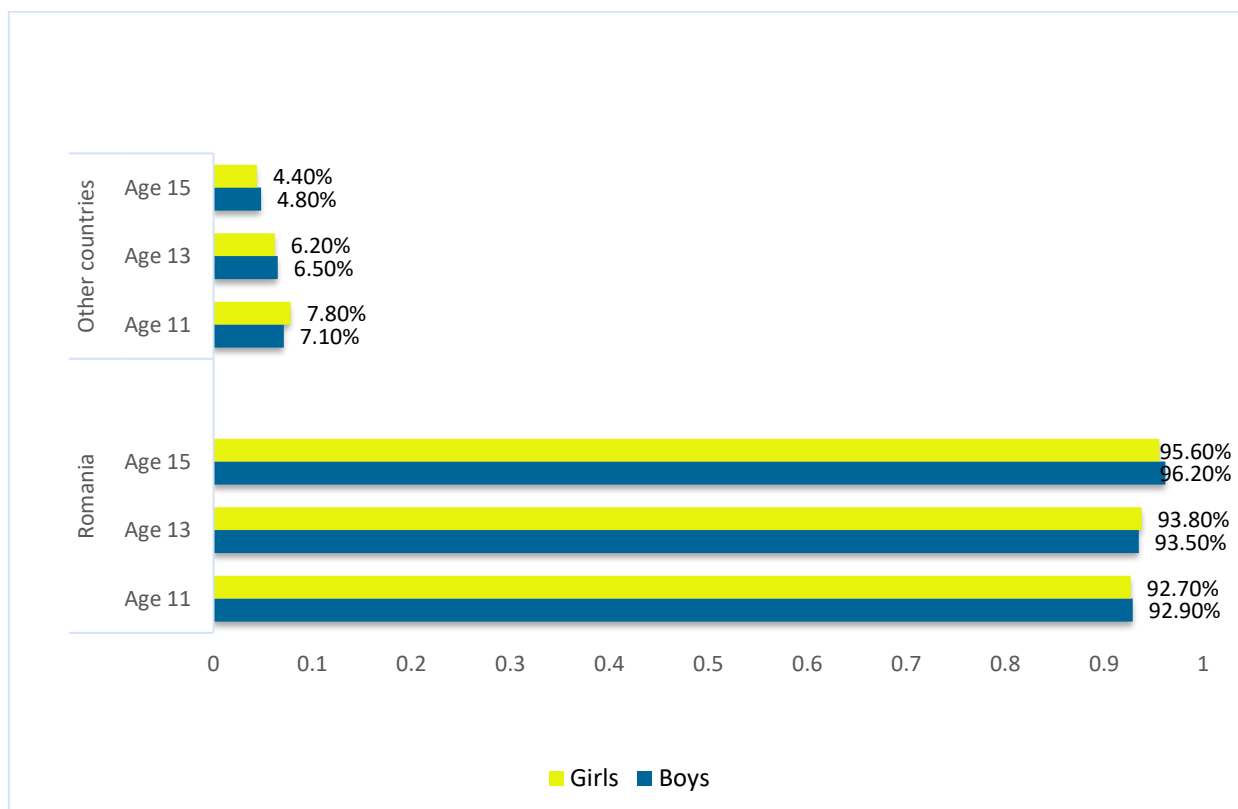
Results

Demographic dimensions of the family

Place of birth

Nine in 10 adolescents were born in Romania (Fig. 1). Of those who declared that they were born in another country, most reported Italy, France, Germany, the Republic of Moldova, Spain and the United Kingdom as country of birth.

Fig. 1. Percentage of adolescents who were born in Romania and those in other countries



Similarly, most parents of the adolescents in the sample were born in Romania (Fig. 2 and 3)

Fig. 2. Percentage of mothers who were born in Romania and those in other countries

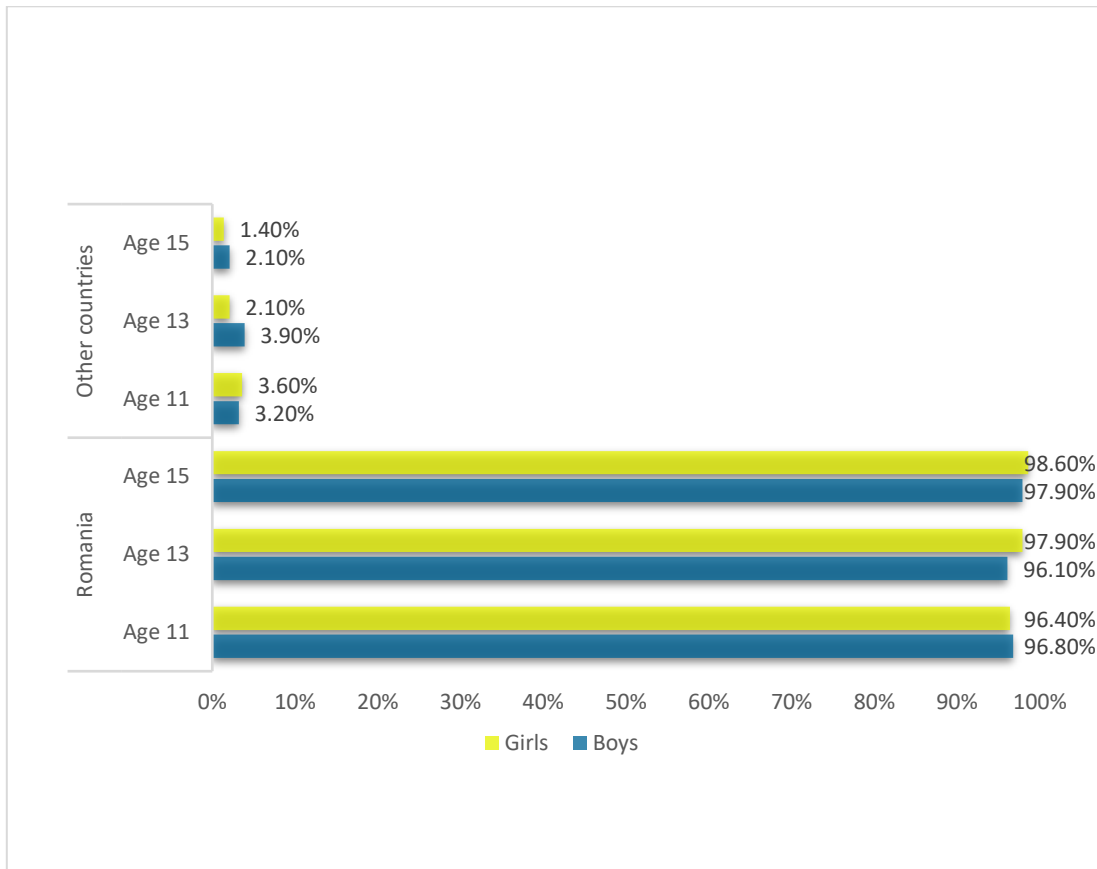
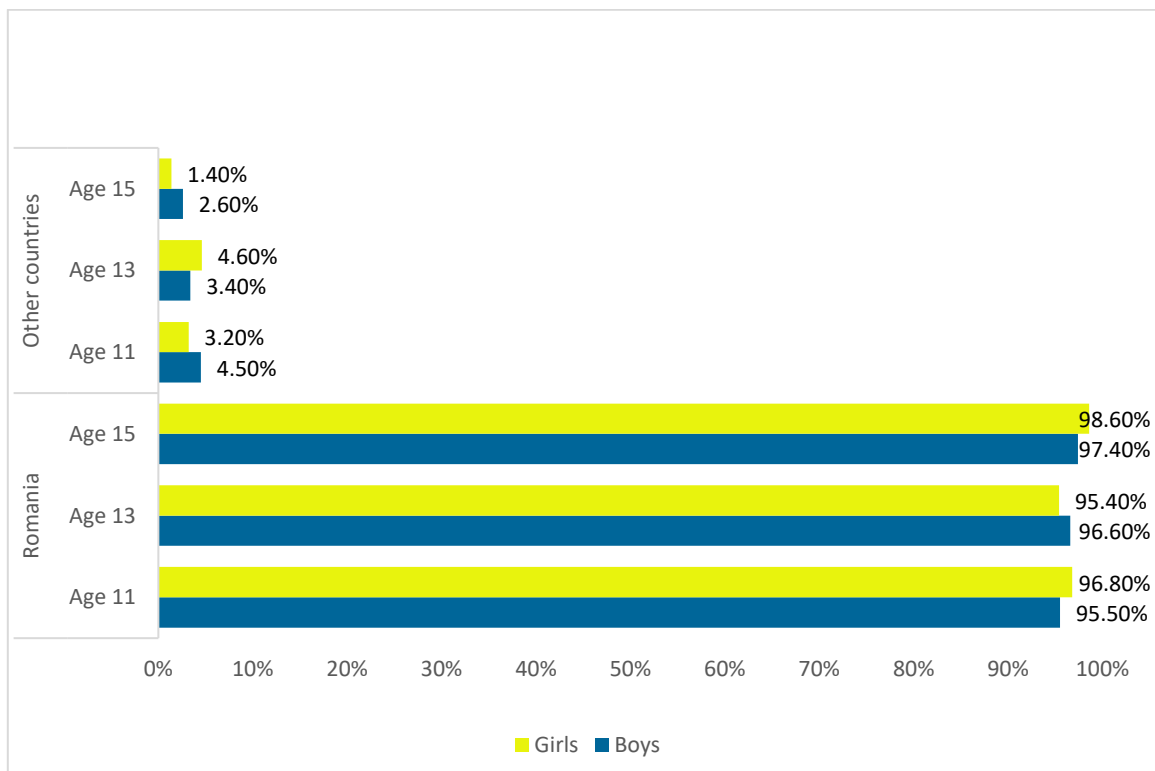


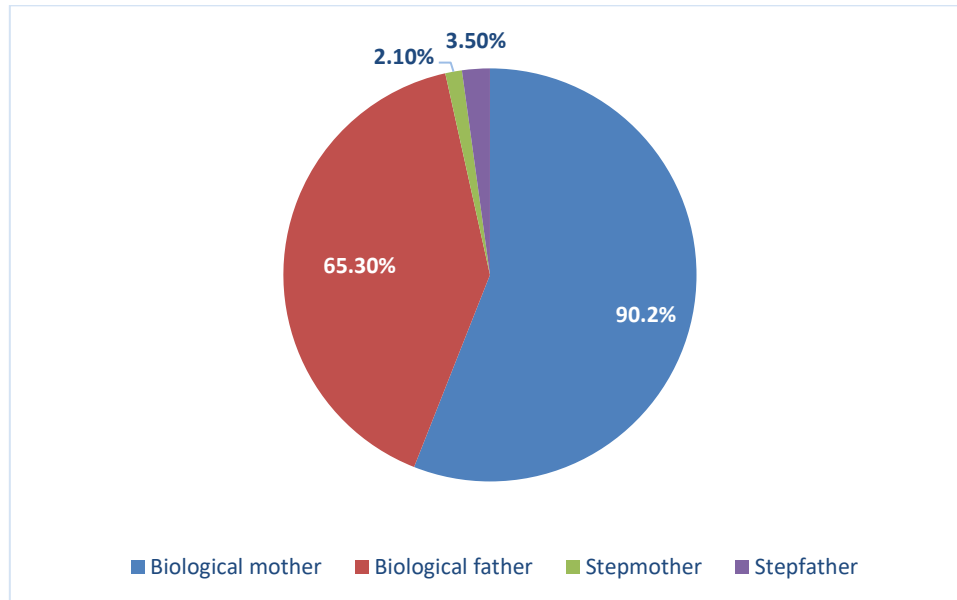
Fig. 3. Percentage of fathers who were born in Romania and those in other countries



Family structure

Results regarding family structure are shown in Fig. 4. The percentage of adolescents living with both parents is one of the lowest in Europe (62%) while one in three adolescents live in a single-parent family, mostly headed by a mother. Only a minority lived in a family with a stepparent, the presence of the stepfather in the family being 3.5% and of the stepmother 2.1%.

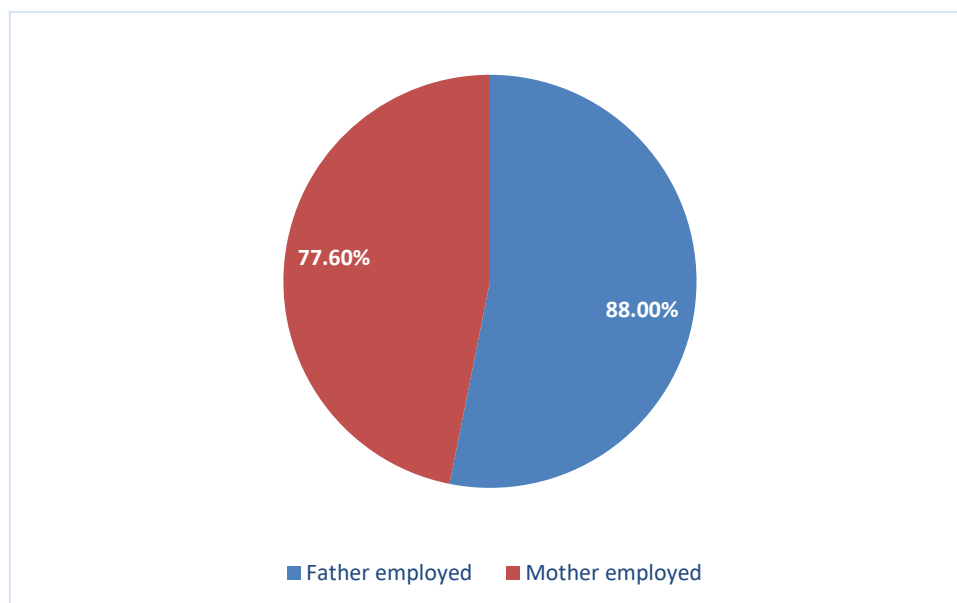
Fig. 4. Family structure for the families of adolescents



Parents' employment status

Results on parents' employment status are shown in Fig. 5. More than two thirds of adolescents reported at least one parent was employed. There were differences between mothers' and fathers' employment status, with fathers being more often reported as having a job. The percentage of adolescents who said their parent(s) had a job was constant across ages.

Fig. 5. Percentage of adolescents whose parents are employed

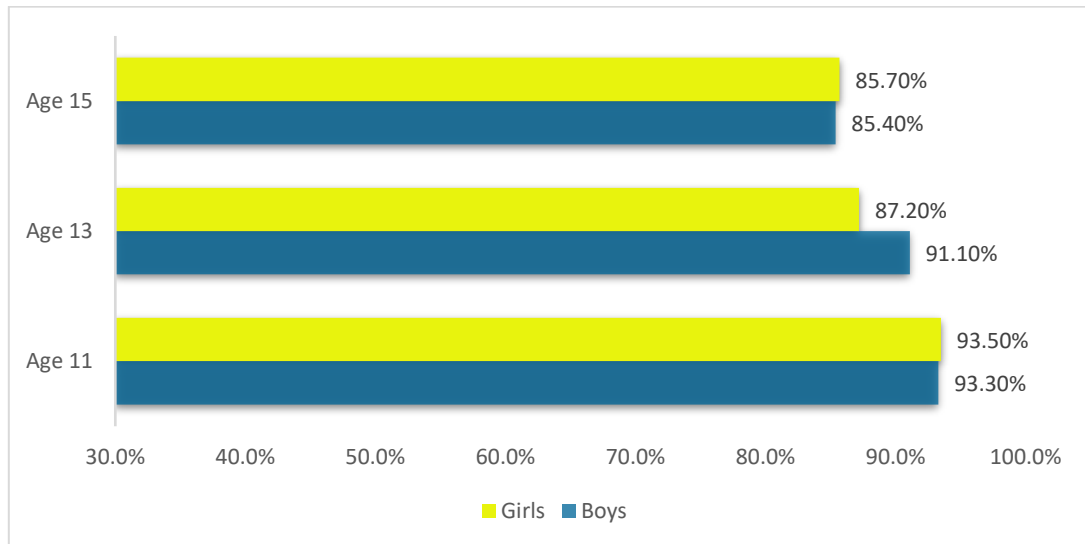


Family communication

Communication with the mother

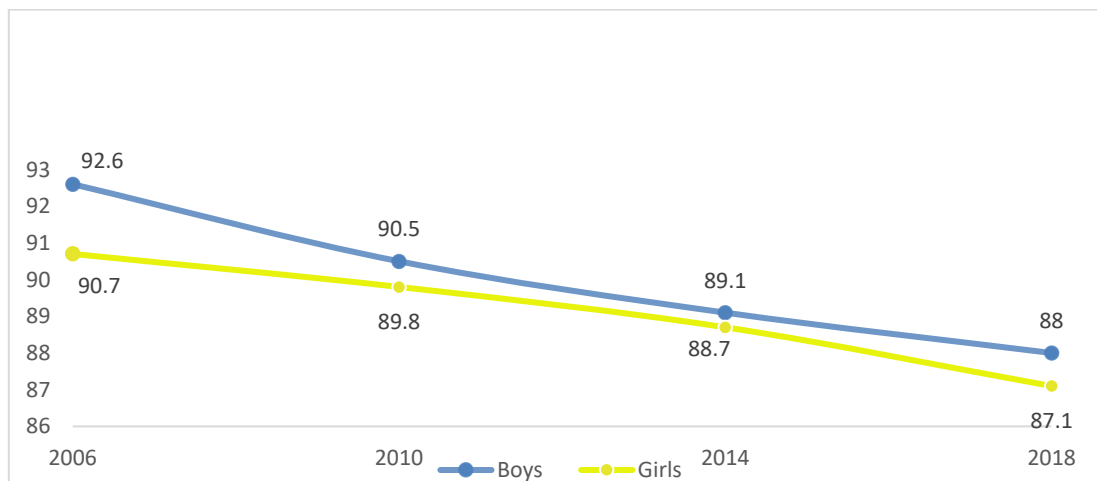
On average, nine in 10 adolescents reported that they communicated with ease with their mother about the things that concerned them (Fig. 6). At all ages, the differences between girls and boys in terms of ease of communication with mother were small. A decline in ease of communication with mother is seen with age, with the most striking decline being between ages 11 and 15.

Fig. 6. Percentage of adolescents who communicate easily with their mother about the things that concern them



As can be seen in Fig. 7, communication between adolescents and their mother about the things that concern them declined in 2018 compared to 2006, a trend that was similar for both genders.

Fig. 7. Percentage of adolescents who communicate easily with their mother, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Communication with the father

Fig. 8 presents the results for communication with fathers for each gender and age category. There are differences in communication with father between boys and girls at all ages, with girls reporting to a lesser extent that they communicated easily with their father. Although the difference was small at age 11, it grew with age. For boys, ease of communication with father changed relatively little with age, but for girls, however, a sharp decline with age is seen.

Fig. 8 Percentage of adolescents who communicate easily with their father about the things that concern them

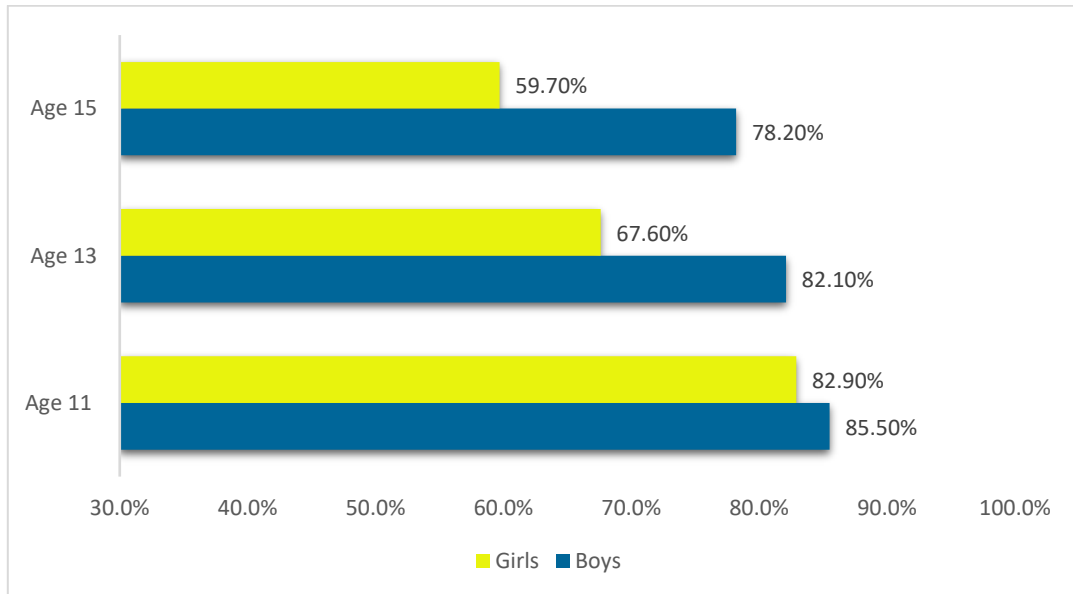
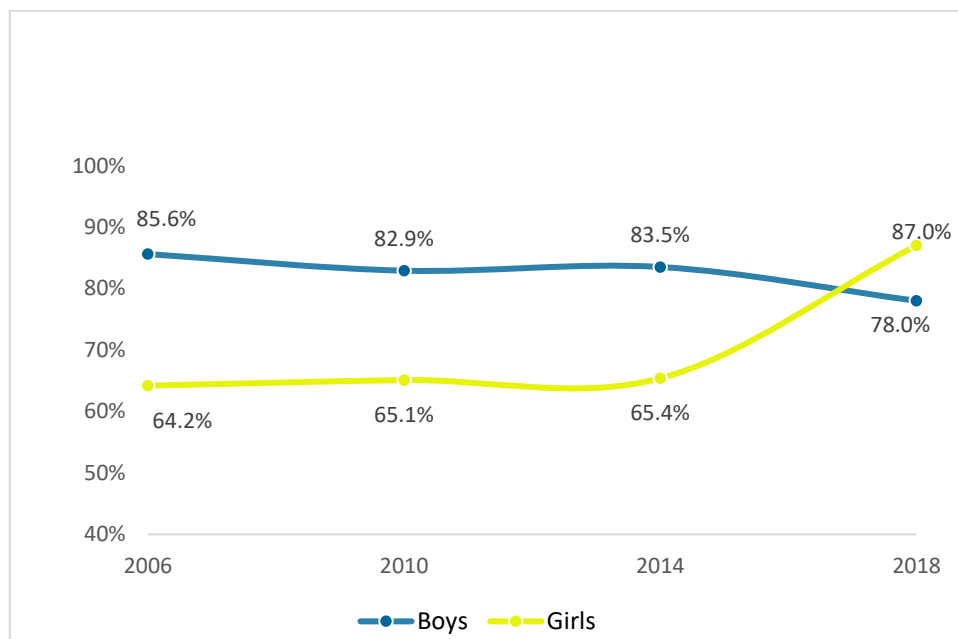


Fig. 9 shows that previously constant gender differences in relation to ease of communication with father between 2006 and 2014 were smaller in 2018. Moreover, there was an opposite direction for the two genders, with girls reporting more ease in communication with father than boys. There was also a decline in ease of communication with father for boys. Compared with previous years, the smallest difference between the two genders regarding ease of communication with father are seen in 2018 (less than 10% difference), with positive trends for girls and negative ones for boys.

Fig. 9. Percentage of adolescents who communicate easily with their father, 2006–2018

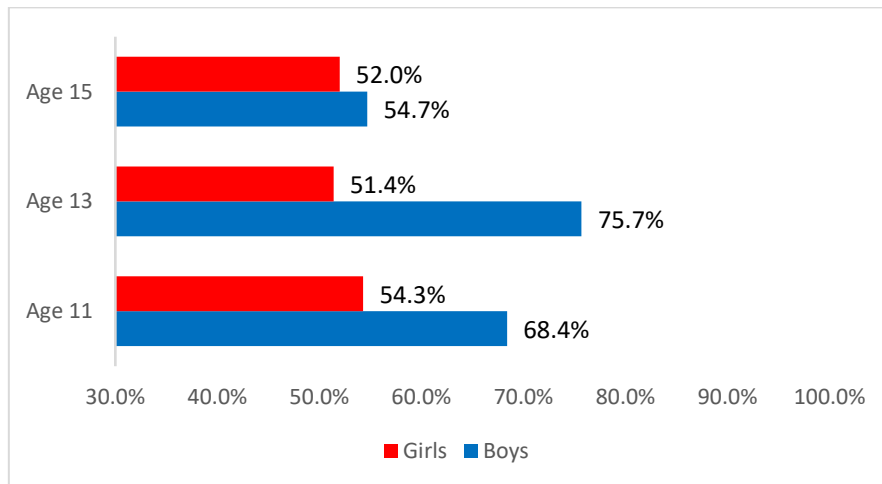


Source: HBSC research 2006, 2010, 2014, 2018.

Communication with the stepfather or mother's partner

Fig.10 presents results of adolescents who communicate easily with their stepfather (for those living with him), for each gender and age category. There were differences between girls and boys at all ages, with a higher percentage of boys reporting ease of communication with their stepfather. The percentage decreased with age, such that at age 15, approximately half of them reported having good communication. For girls, ease of communication with the stepfather, reported by approximately 50%, remained relatively constant.

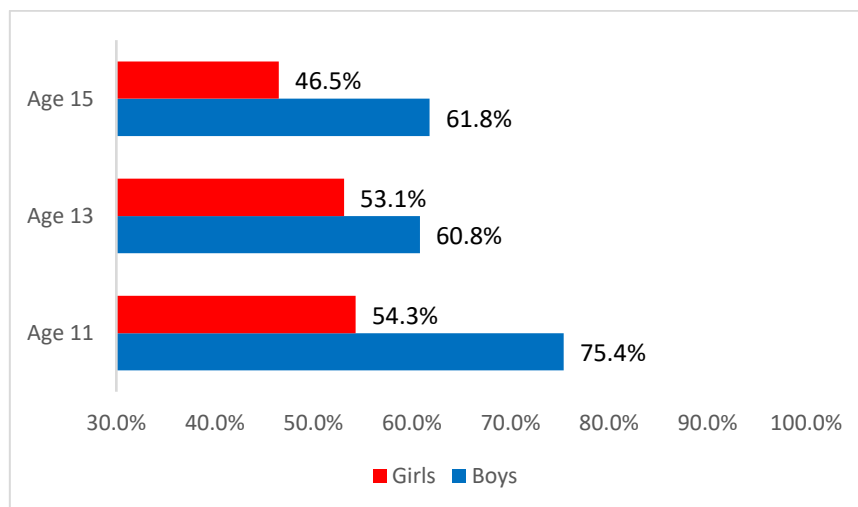
Fig. 10. Percentage of adolescents who communicate easily with their stepfather about the things that concern them



Communication with the stepmother or father's partner

Fig. 11 shows results from adolescents regarding their communication with the stepmother, only for those living with her. There were differences between girls and boys at all ages, with a higher percentage of boys reporting easy communication with their stepmother. However, there is an age decline in rates of adolescents who consider it easy to communicate with their stepmother. The trend was similar for girls, with the greatest ease of communication with the stepmother being recorded at age 11.

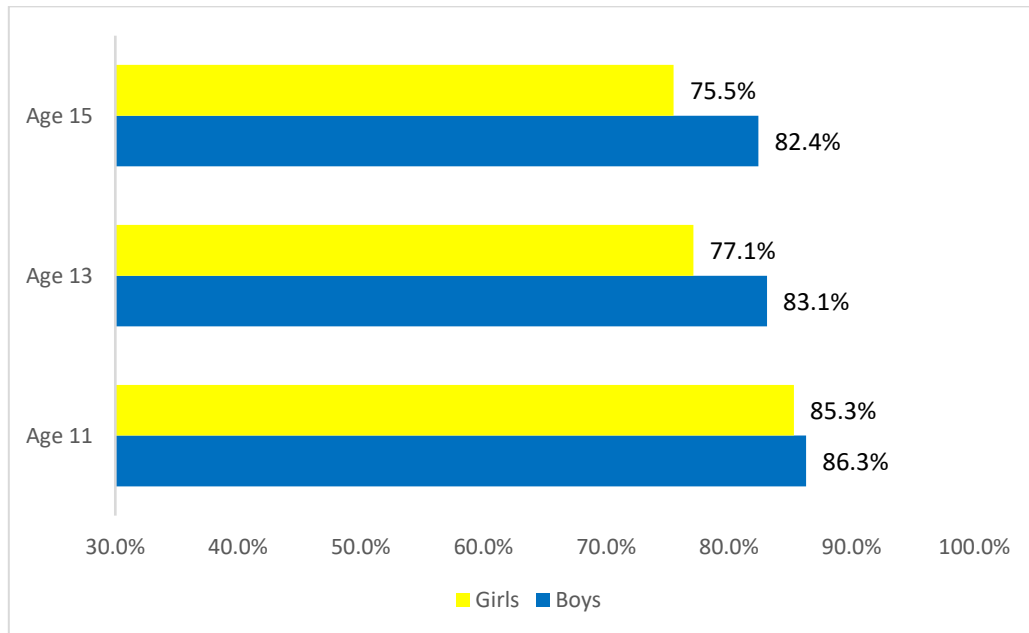
Fig. 11. Percentage of adolescents who communicate easily with their stepmother about the things that concern them



Family support

On average, eight in 10 teenagers perceived that they benefitted from family support. Fig. 12 presents the perception of having family support for each gender and age category. At all ages, boys perceived a higher level of family support than girls. Perceived family support decreased with age for both girls and boys.

Fig. 12. Percentage of adolescents who consider that they benefit from the family's support



Final considerations

Aspects related to the family environment, such as communication with family members and perceived support from the family, constitute important resources for adolescents' development (Inguglia et al., 2015). Most adolescents were born in Romania and live with their biological parents, mostly with mothers. The vast majority say their parents have a job. The mother is the person with whom adolescents of all ages communicate easily about everyday concerns. Gender differences in communication with father increase with age, with girls perceiving communication with their fathers as being more difficult. Positive communication with stepparents is reported by approximately half of adolescents. More than two thirds perceive that they benefit from family support regardless of age. The perception of support provided by the family decreases for both genders with age.

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School environment: satisfaction, school pressure and perceived support

Introduction

In addition to the family’s primary role in adolescents’ optimal development, the school represents the most proximal socialization context available to adolescents, having the potential to instil norms and social prohibitions. A favourable school environment will positively influence adolescents’ development and contribute to their functioning as adults (Kasen et al., 1998). On the other hand, a school environment characterized by lack of support and little involvement of teachers is associated with an increased risk of school dropout and problematic behaviours during adolescence (Kasen et al., 1998). The negative attitudes and behaviours of adolescents toward school (such as school failure, stress and negative perception of the school) are important risk factors for emotional, social and behavioural health later on in life (Kasen et al., 1998; Mason & Windle, 2001; Damian et al., 2016).

Measuring instruments

The issues related to school were assessed using the following indicators: school satisfaction, perceived school pressure, classmates and teacher support (Rasmussen, 2004) (Table 2).

Table 2. Questions: school environment

Topic	Questions	Comments
School satisfaction	What is your opinion regarding school at the moment?	Pupils had four response options on a Likert scale with levels from I don’t like it at all to I like it a lot.
Perceived school pressure	How stressed do you feel because of the schoolwork you receive?	Pupils could answer by choosing one of the following choices: not at all, a little, quite stressed or very stressed.
Support from classmates	Assessed according to answers given to three statements related to classmates: My classmates like spending time together. Most of my classmates are kind and helpful. The other pupils accept me for who I am.	Pupils answered on a Likert scale with five response options, expressing the extent to which they agree with these statements, ranging from strongly disagree to strongly agree.
Teacher support	Assessed according to answers given to three statements: I feel that the teachers accept me for who I am.	Each item had five possible response options concerning the extent to which pupils agreed with each of the three

Topic	Questions	Comments
	I feel that the teachers care about me as a person. I feel like I can trust my teachers a lot.	statements, from strongly disagree to strongly agree.

Results

General school-related satisfaction

Fig. 13 shows the percentage of adolescents in each age and gender category who reported that they liked school a lot. Although gender differences regarding school satisfaction were small, girls usually reported higher school satisfaction than boys at all ages. School satisfaction declined with age for both genders, with a greater decline seen between 11 and 13. After age 13, school satisfaction levels seem to stabilize for both genders, with even a slight increase at 15.

Fig. 13. Percentage of adolescents who really like school

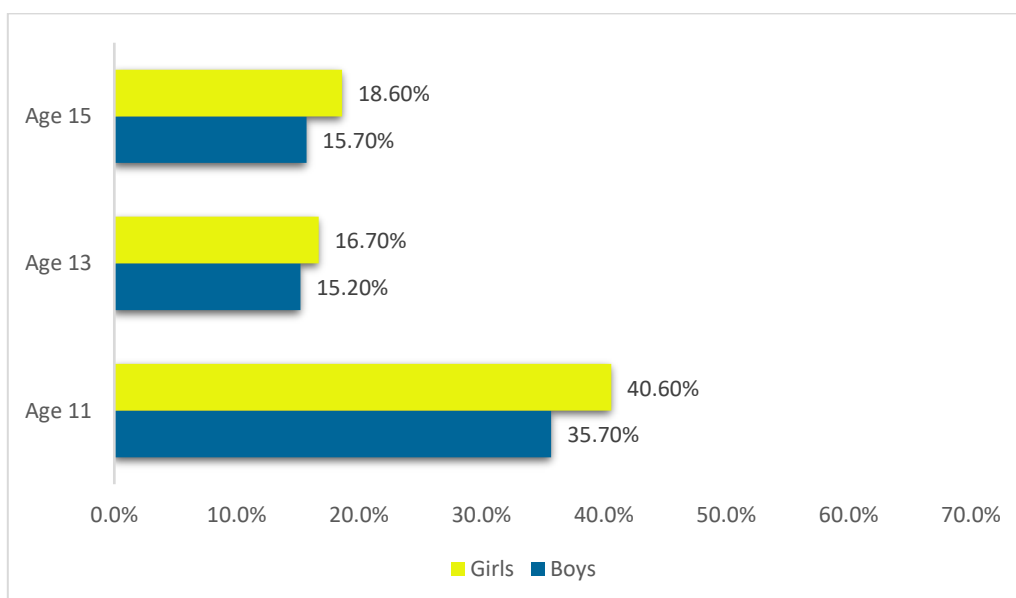


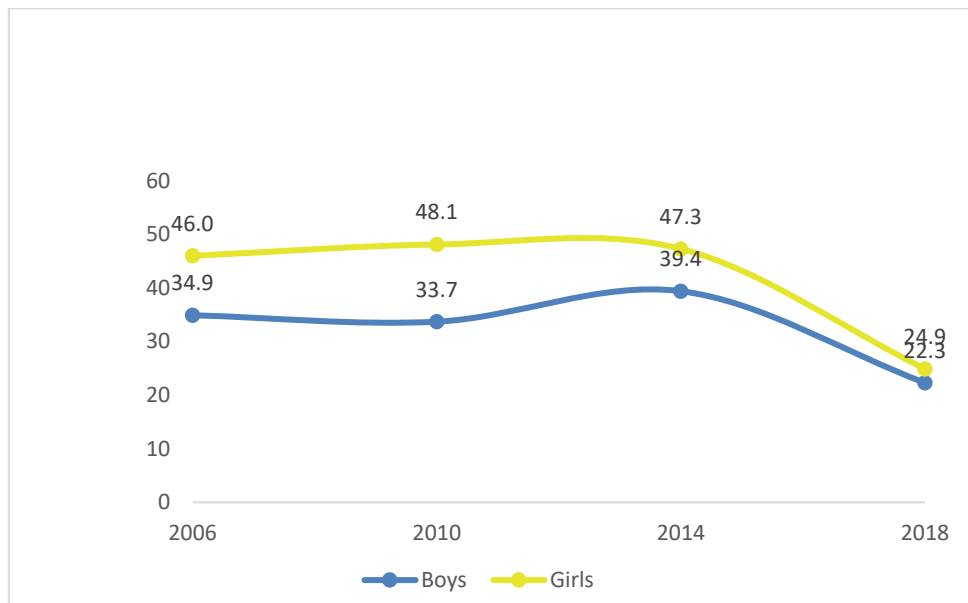
Fig. 14 shows a decline in general school satisfaction both for girls and boys in 2018 compared to the years 2006–2014. Despite a slight rise in 2014 compared to 2006, school satisfaction seems to have declined in 2018, reaching the lowest level reported so far. There has been a tendency over the years for girls to report a higher level of satisfaction towards school than boys, but the difference was very small in 2018.

Perceived school pressure

In 2018, four in 10 adolescents from Romania aged 11–15 reported a medium or a high level of stress caused by schoolwork. Overall, girls reported higher levels of stress compared to boys.

Fig. 15 shows that the level of school stress reported by both genders at age 11 was relatively equal. The difference reported by the two genders increased with age, with the highest difference being recorded at 15. Boys of 15 reported stress related to schoolwork to a lesser extent than those of 13, but for girls, stress increased consistently with age.

Fig. 14. Percentage of adolescents who really like school, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Fig. 15. Percentage of adolescents who feel stressed because of schoolwork

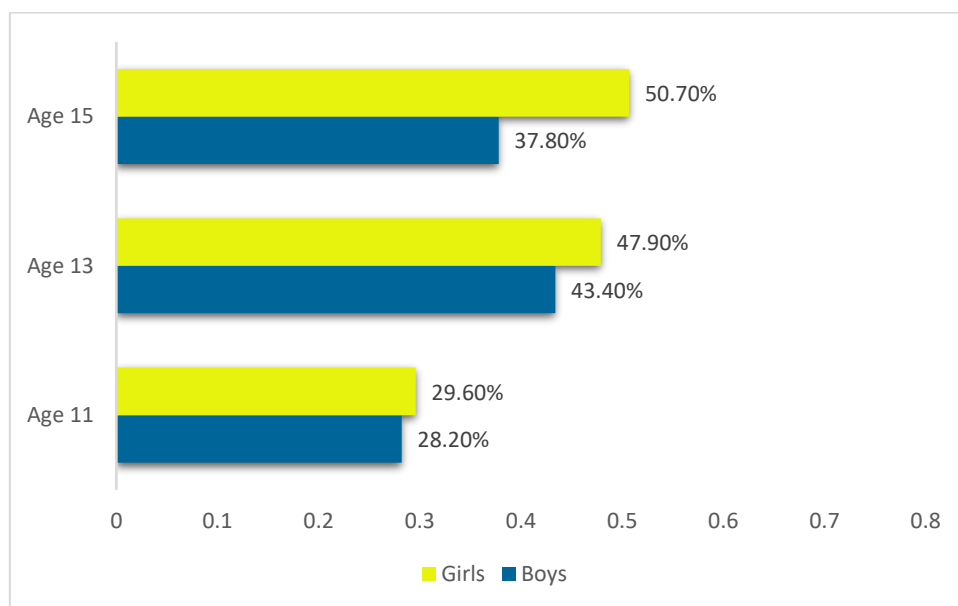
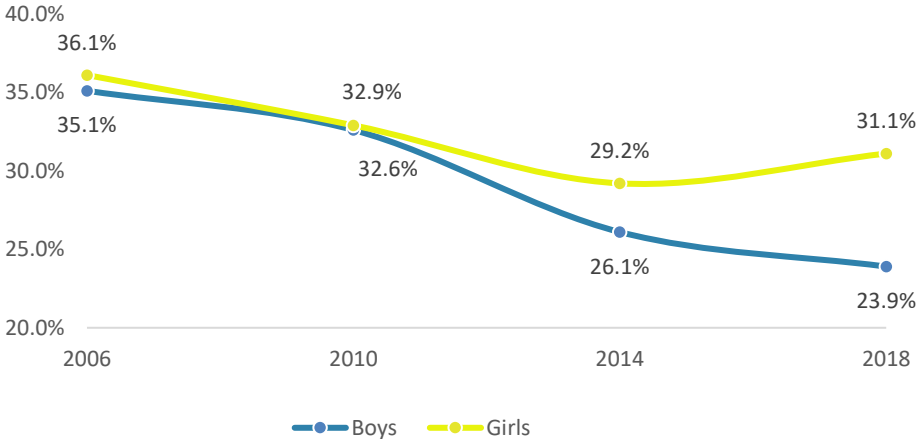


Fig. 16 shows that the level of perceived stress for girls increased in 2018 compared to 2014, while for the boys it decreased.

Student support

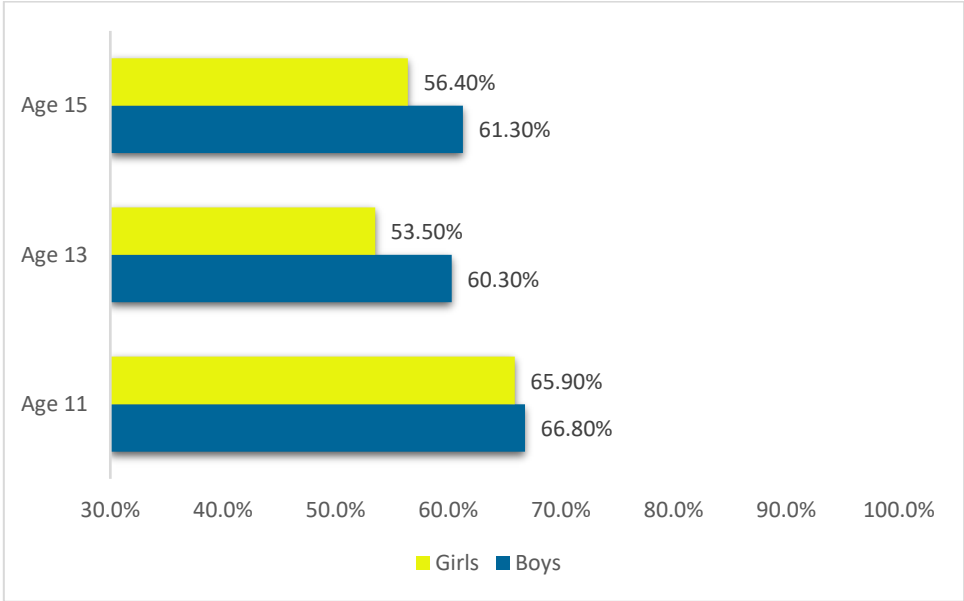
Globally, six in 10 adolescents considered that they benefitted from other pupils' support. Regardless of age, boys perceived higher levels of student support than girls. Although the difference between the two genders regarding this aspect was negligible at age 11, it increased with age. Perceived student support decreased with age for both genders (Fig. 17).

Fig. 16. Percentage of adolescents who feel stressed because of schoolwork, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Fig. 17. Percentage of adolescents who consider that they benefit from other pupils’ support

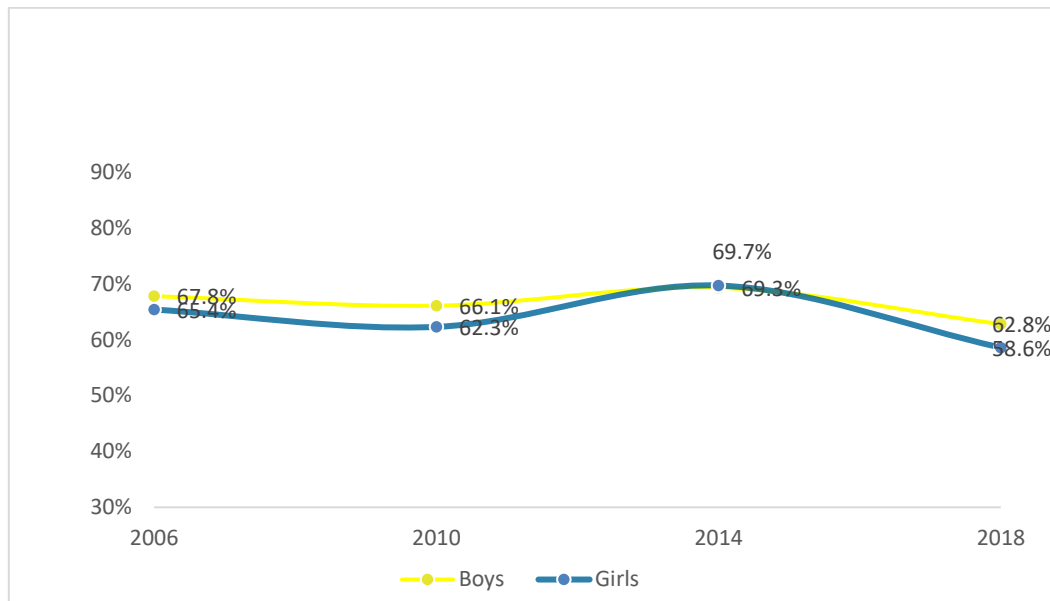


There have been no major changes in perceived student support over the years (Fig.18), but the perception of support received from other pupils reduced in 2018 for both genders, with the lowest values reported so far.

Teacher support

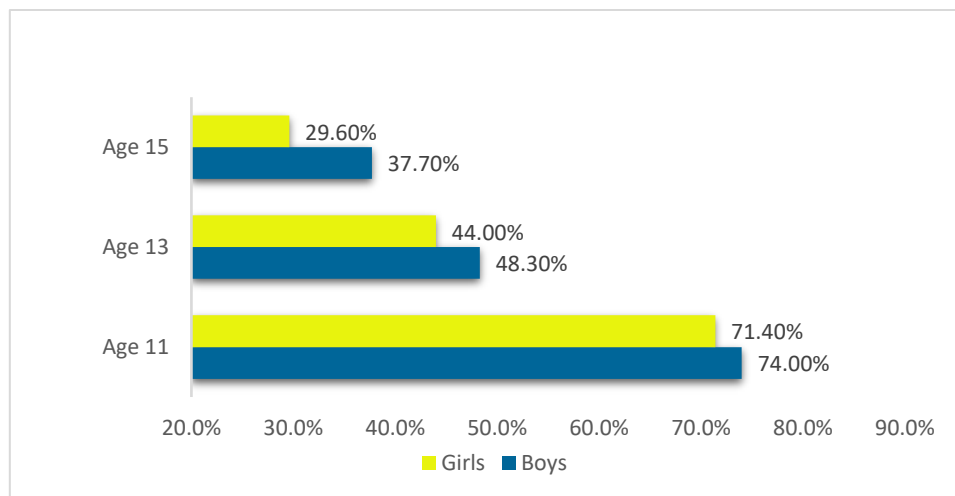
About five in 10 adolescents reported that they received increased support from their teachers. In terms of gender differences, both globally and for the three age categories, more boys than girls perceived increased support from teachers (Fig. 19). A strong decreasing trend with age was recorded for both genders, with the percentage of adolescents who reported benefitting from their teachers’ support decreasing substantially at age 15. At this age, girls reported the lowest level of support from teachers.

Fig. 18. Percentage of adolescents who consider that they benefit from other pupils' support, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Fig. 19. Percentage of adolescents who consider that they benefit from their teachers' support



Final considerations

School adaptation, low levels of stress and increased levels of social support offered by classmates and teachers are important aspects of positive development for adolescents (Lerner et al., 2005). Previously presented results show a higher trend among girls for reporting higher levels of school satisfaction compared to boys. Despite this, girls feel higher levels of stress related to schoolwork than boys. Boys, more often than girls, perceive that they benefit from other pupils' and teachers' support, a gender difference that increases with age.

To better support adolescents, all multiple facets of the school experience should be addressed. Creating a positive learning environment that supports adolescents, both in terms of emotional and social development, has the potential to contribute to their further development and success (Negru-Subtirica et al., 2015) and to support them to engage in a healthy lifestyle (Archambault et al., 2009).

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Peers: perceived support and online communication

Introduction

At any age, friendships represent a source of support, with the potential to positively influence the social and emotional development of young people. Lack of social support has often been associated with mental disorders (Miller et al., 2015; Rueger et al., 2016). Adolescence is a stage when bonds formed with the peer group increase in importance (Ellis et al., 2009). Within the peer group, adolescents develop their self-confidence and learn to cooperate, express empathy and adequately manage the conflicts they face (Dodge & Pettit, 2003). Adolescents who perceive that they have their peers' support generally report a high level of well-being (Chu et al., 2010).

Measuring instruments

Elements of the group's culture were examined through the questions shown in Table 3.

Table 3. Questions: peers

Topic	Questions	Comments
Perceived support from peers	Assessed through four items: My friends are really trying to help me. I can rely on my friends when things go wrong.	Answers were given on a Likert scale with seven response options from very strongly disagree to very strongly agree.

Topic	Questions	Comments
	<p>I have friends with whom I can share my joys and my sorrows.</p> <p>I can talk about my issues with my friends.</p>	<p>The reported results are the averaged answers, so that an average greater than or equal to 5.5 is considered to represent increased friends' support.</p>
Online communication with friends	<p>How often do you contact the following persons online?</p> <ul style="list-style-type: none"> • close friends • friends from a larger group of friends • friends that you met online but you didn't know before • people other than friends (such as parents, brothers/sisters, classmates and teachers). 	<p>answers targeted the following categories of persons: The answers were given on a Likert scale with six options from "I don't know/does not apply in my case" to "Almost all the time throughout a day". Reported results consider as intensive use of online media for communicating with friends the pupils who answered with "Almost all the time throughout a day" in at least two categories.</p>
Preference for online communication	<p>I can express myself and share my secrets more easily online than face to face.</p> <p>I can express myself and my feelings more easily online than face to face.</p> <p>I can express myself and my concerns more easily online than face to face.</p>	<p>Answers were given on a Likert scale with five response options, ranging from strongly disagree to strongly agree. In the reporting of results, pupils who answered with agree or strongly agree to at least two of the statements were considered to show a strong preference for using online media for communication.</p>
Use of media	<p>Over the last year:</p> <ol style="list-style-type: none"> 1. Did you realize that you can't think of anything other than when you will be able to use social networks again? 2. Have you often felt dissatisfied because you would have wanted to spend more time on social networks? 3. Have you often had a negative feeling because you couldn't use social networks? 4. Have you tried unsuccessfully to reduce time spent on social networks? 5. Have you often neglected other activities (such as hobbies and sports) because you wanted to use social networks? 6. Have you often got into arguments with others due to 	<p>For each of these questions, the pupils could answer with yes or no. In the reporting of results, pupils with at least five yes answers, one of which was to items 5, 6 or 9, were considered to be the ones having problems related with media usage.</p>

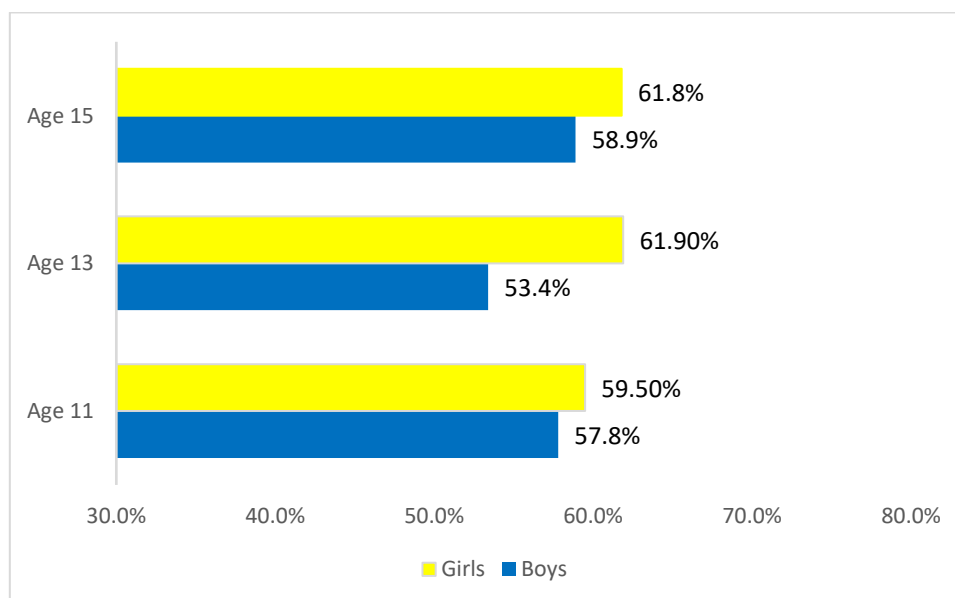
Topic	Questions	Comments
	the use of social networks?	
	7. Have you often lied to your parents or friends about how much time you spend on social networks?	
	8. Have you repeatedly used social networks to get rid of unpleasant feelings?	
	9. Have you had serious conflicts with your parents or regarding your activity on social networks?	

Results

Perceived support from peers

For the younger age groups (ages 11 and 13), there was a tendency for girls to report perceived support from peers to a greater extent than boys. The gender differences regarding peer support decreased at age 15 as a result of a slight increase in the support perceived by boys (Fig. 20). Perceived peer support remained relatively constant with age for both girls and boys.

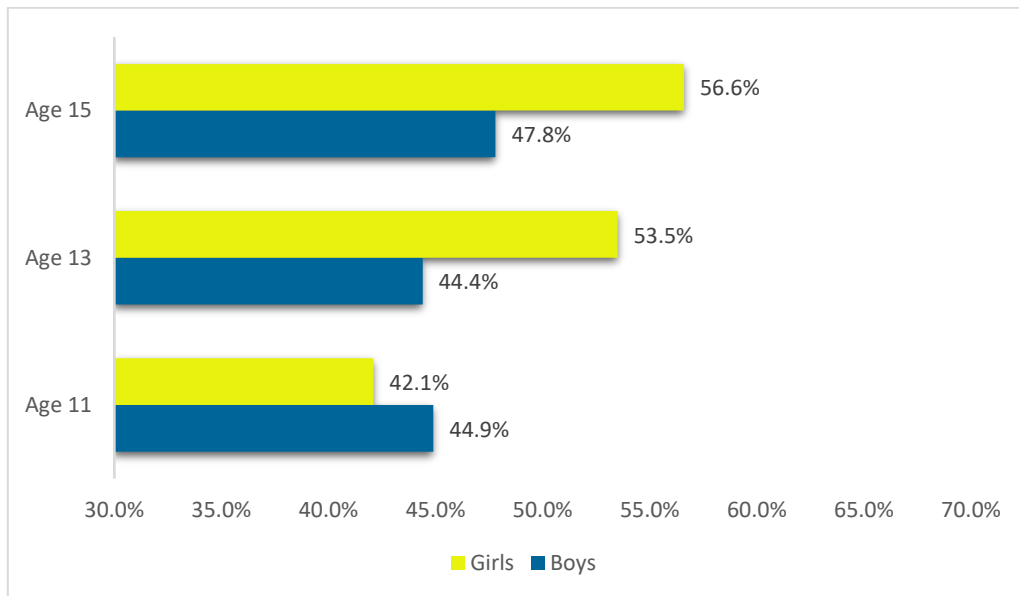
Fig. 20. Percentage of adolescents who consider that they have a high degree of support from their peers



Online communication with friends

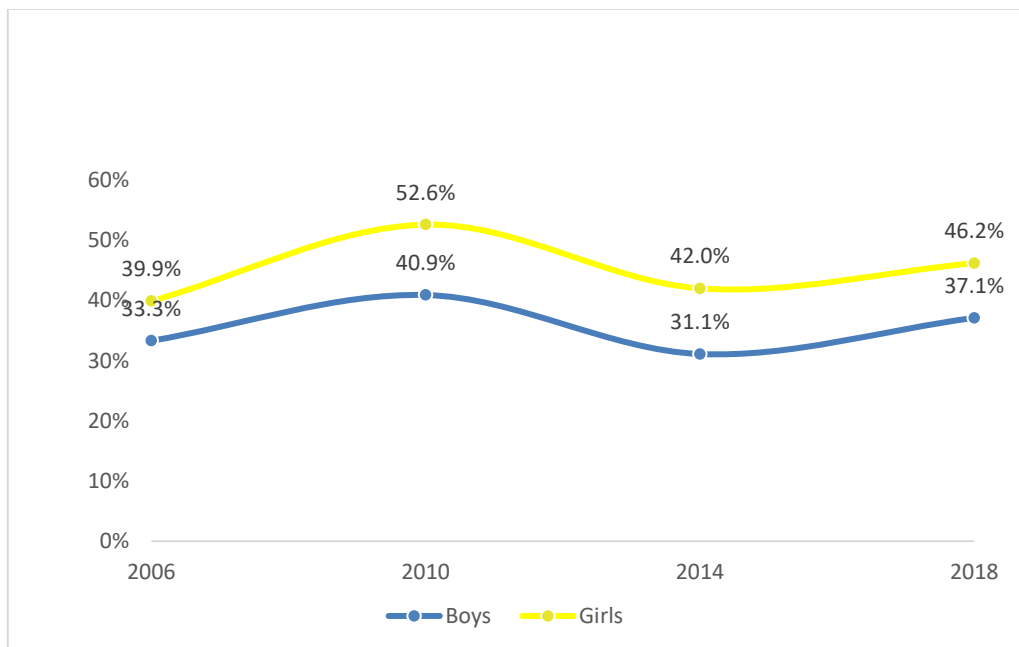
Almost half of the adolescents reported that they used social networks. Girls used online media to get in touch with friends to a greater extent than boys, regardless of age (Fig. 21). There is a trend for online communication usage to increase with age, more notably for girls.

Fig. 21. Percentage of adolescents who use social networks intensively to get in touch with their friends



Use of social media to get in touch with friends has a relatively stable and comparable trend for both genders (Fig. 22). The percentage of adolescents using online communication grew slowly in 2018 compared to 2014 but was smaller compared to data recorded in 2010.

Fig. 22. Percentage of adolescents who use social networks intensively to get in touch with their friends, 2006–2018

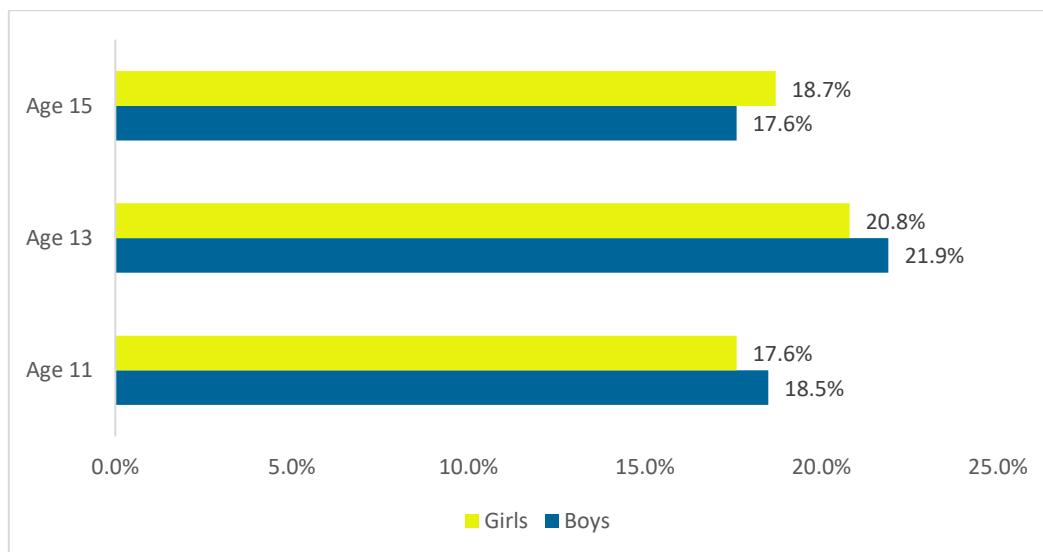


Source: HBSC research 2006, 2010, 2014, 2018.

Preference for online communication

Only two in 10 adolescents reported that they prefer to communicate online. This trend was relatively stable with age and with no differences between genders (Fig. 23).

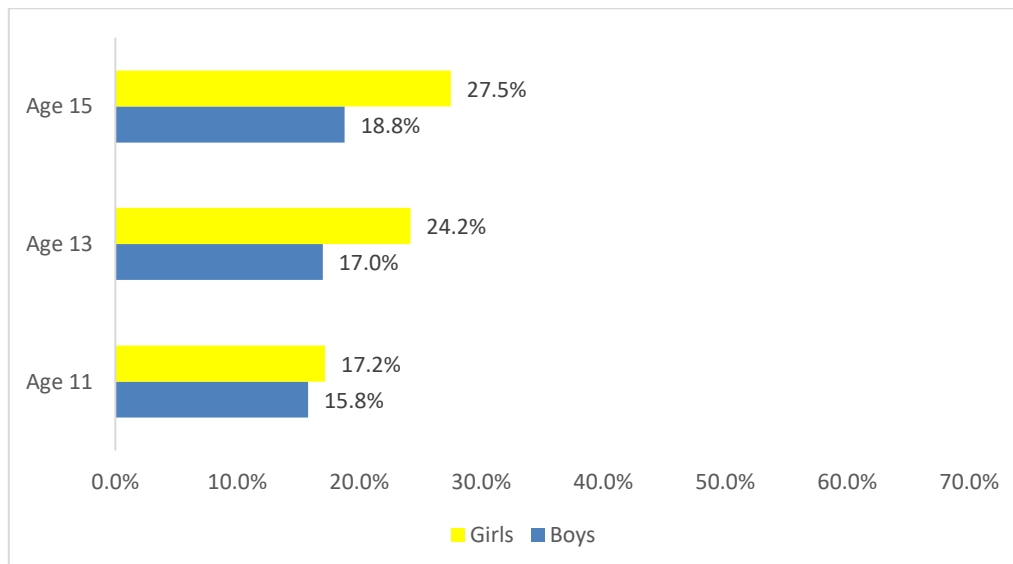
Fig. 23. Percentage of adolescents who prefer to communicate online with others



Use of media

Girls reported problematic and intensive use of social media more frequently than boys, for all age categories (Fig. 24). Problems related to time spent online became more visible with age for girls than boys. For boys, the trend was relatively stable regardless of age.

Fig. 24. Percentage of adolescents who report problematic use of social media for communication



Final considerations

Data show that more than half of adolescents perceive benefit from peer support, which is relatively constant with age for both girls and boys. With increasing age, young people use social media for communicating with others and keeping in touch with their friends to a greater extent, although only a minority report having a preference for this type of communication. The trend to use social media for communicating is more noticeable among girls and is also more of a problem for them. Online communication is an opportunity granted by major technological developments, of which adolescents can now take advantage. The World Wide Web opens for adolescents the opportunity not only to explore their identity, but also to find and create new

sources of support, and to develop close meaningful relationships with people of the same age (Valkenburg & Peter, 2009).

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Health and well-being



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Introduction

For quite some time, health was considered to be the equivalent of the absence of diseases. Health data and information were obtained from national statistics on morbidity and mortality (Ravens-Sieberer et al., 2006). More recent approaches regard and describe health not only as the absence of diseases, but as a complex, multidimensional, relative and variable state that is procedural–dynamic (Băban, 2006).

There is increased interest in the field of public health in assessing not only the objective indicators of health conditions, but also data concerning perceived health. In the HBSC study, these include self-perceived health, life satisfaction, and psychological and somatic distress. All of these assess the many facets of adolescents' health and well-being from their own subjective perspective. To obtain an overall image of health and well-being in adolescents, several indicators have been taken into account, which are briefly described in the sections below.

Adolescents' self-assessments of physical and psychological health

The overall health assessment can provide data on stable dimensions of the individual's perception of health and how this perception evolves (Boardman, 2007). The self-assessment can be a good indicator of the health condition at the time of assessment and also a health predictor for adulthood (Hetlevik et al., 2018). Adolescents were asked to report the frequency of both somatic (headaches and stomach aches) and psychological symptoms (feelings of anger, irritation, restlessness and difficulties in falling asleep).

Accidents and injuries

Accidents and injuries, considered to be the most common cause of death among children and adolescents (WHO, 2006), represent a key area of interest in the field of public health. Every year, millions of children around the world die or are hospitalized as a result of events that could have been prevented, with injuries and violence important contributing factors. WHO estimated that approximately 875 000 children died from injuries in 2002. In this context, it becomes imperative to analyse the prevalence of accidents and injuries and the context in which they occur (Sethi et al., 2006).

Body mass index and body image

The body mass index (BMI), which is calculated as the mass, in kilograms (kg), divided by the square of the height, in metres (m) (kg/m^2), is the most used indicator in determining adiposity in children and adolescents (Currie et al., 2014). HBSC adheres to international standards on BMI, adopting the critical thresholds for overweight and obesity introduced by Cole et al. (2000). These are recommended by the International Obesity Task Force (IOTF) and are known as the IOTF critical thresholds.

A high BMI in childhood and adolescence is associated with an increased risk of disease and death later in life, being linked to well-known cardiometabolic risk factors (Maynard et al., 2001). In the context of the obesity pandemic, it is important to have an understanding of the percentages of overweight and obese children and adolescents by determining BMI. Even though obesity poses a real threat to the health of teenagers, their attempts to achieve an intensely promoted sociocultural beauty standard can lead to a troublesome situation as serious as obesity. This is all the more serious due to the fact that physical and psychological development in adolescence is the most intense stage of the entire development process (except for the early

childhood period), which leads to dynamic assessments of their own body. Studying the perception of body or body image in adolescents therefore becomes relevant.

Measuring instruments

Positive health condition was measured through the items specified in Table 4.

Table 4. Questions: health and well-being

Topic	Questions	Comments
Life satisfaction and well-being	Life satisfaction: At the moment, where do you think you are on this scale?	The response options ranged on a scale of 0 to 10, where 0 = I have the worst possible life, 5 = a life neither good nor bad, and 10 = I have the best possible life. The data analysis included only high life satisfaction scores (higher than 5).
	Well-being	Assessed though the Five Well-being Index (WHO), in which participants were asked to describe to what extent they felt (in the last two weeks): cheerful and in good spirits; calm and relaxed; active and vigorous; fresh and rested upon waking up; and that daily life has been filled with things that interest them. Participants who chose the third answer (less than half the time) were selected.
Physical and psychological health, including self-perceived health, experiencing somatic and mental symptoms, experiencing negative emotional states (sadness and loneliness), and cognitive, emotional or behavioural difficulties	Overall health assessment: Do you consider that your health condition is ...? Psychosomatic symptoms were measured though a single item: In the last six months, how many times have you had one of the following symptoms?	The response options were: excellent, good, so-so and poor. The data analysis included only the percentage of those who reported an excellent health condition. The assessed dimensions were: somatic complaints (headache, stomach ache), and psychological complaints (unhappiness, irritation/anger, feelings of restlessness, or difficulties in falling asleep). The response options ranged on a scale of 1 to 5 (1 = almost every day, 5 = rarely or never). The answers indicating the presence of each symptom more than once a week were taken into account. Additionally, only those who gave an affirmative answer to this question were included, while reporting the percentage of those who, as a result of the symptoms,

Topic	Questions	Comments
		are under medicinal treatment.
	Emotional problems	Assessed by using the Short Depression Scale (Center for Epidemiological Studies Short Depression Scale, CES-D-R 10). This scale includes 10 items, assessing symptoms such as depression, loneliness, fear, fatigue and hopelessness. The response options ranged on a scale of 1 to 4 (1 = rarely or none of the time (less than a day) to 4 = all the time (5–7 days)). Answers indicating the presence of the symptoms listed above for 3–4 days a week were taken into account.
Accidents and injuries that required medical care	In the last two months, how many times have you been injured or in an accident that required that you be treated by a doctor or nurse?	The response options given to the pupils were: I was never injured; one time; two times; three times; and four or more times. In the analysis, all answers that indicated the participants had been injured at least once in the last 12 months were taken into account.
Weight	BMI	Respondents were asked to indicate their height (without shoes) in metres and the approximate weight (without clothes) in kilograms. The critical thresholds for overweight and obesity were allocated after the BMI calculation.
Body image	Do you consider your body to be ...	Response options ranged from 1 – much too thin to 5 – much too fat. The percentage of those who marked the answers a little too fat and much too fat was reported.

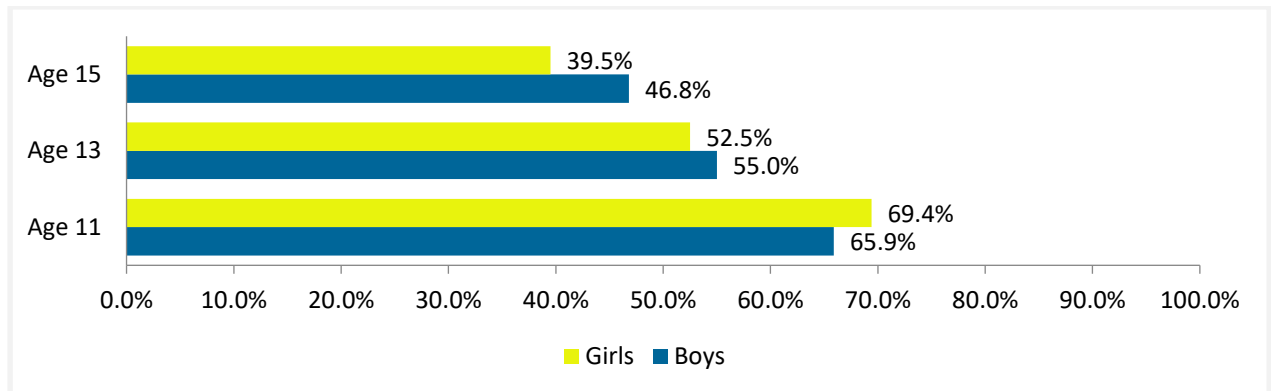
Life satisfaction and well-being

Life satisfaction

Fig. 25 shows that more than half of 11- and 13-year-old girls and boys reported above-average life satisfaction, but in a decreasing trend from ages 11 to 13 and to age 15, at which point fewer than half of the boys and girls reported the same levels of satisfaction. Gender differences in assessing life satisfaction were observed, with boys reporting higher scores than girls. These differences increased from 2.5% among 13-year-olds to over 7% among 15-year-olds. A steep

30% decrease between ages 11 and 15 in the percentage of those who reported high life satisfaction was seen for girls, while the trend was less striking for boys.

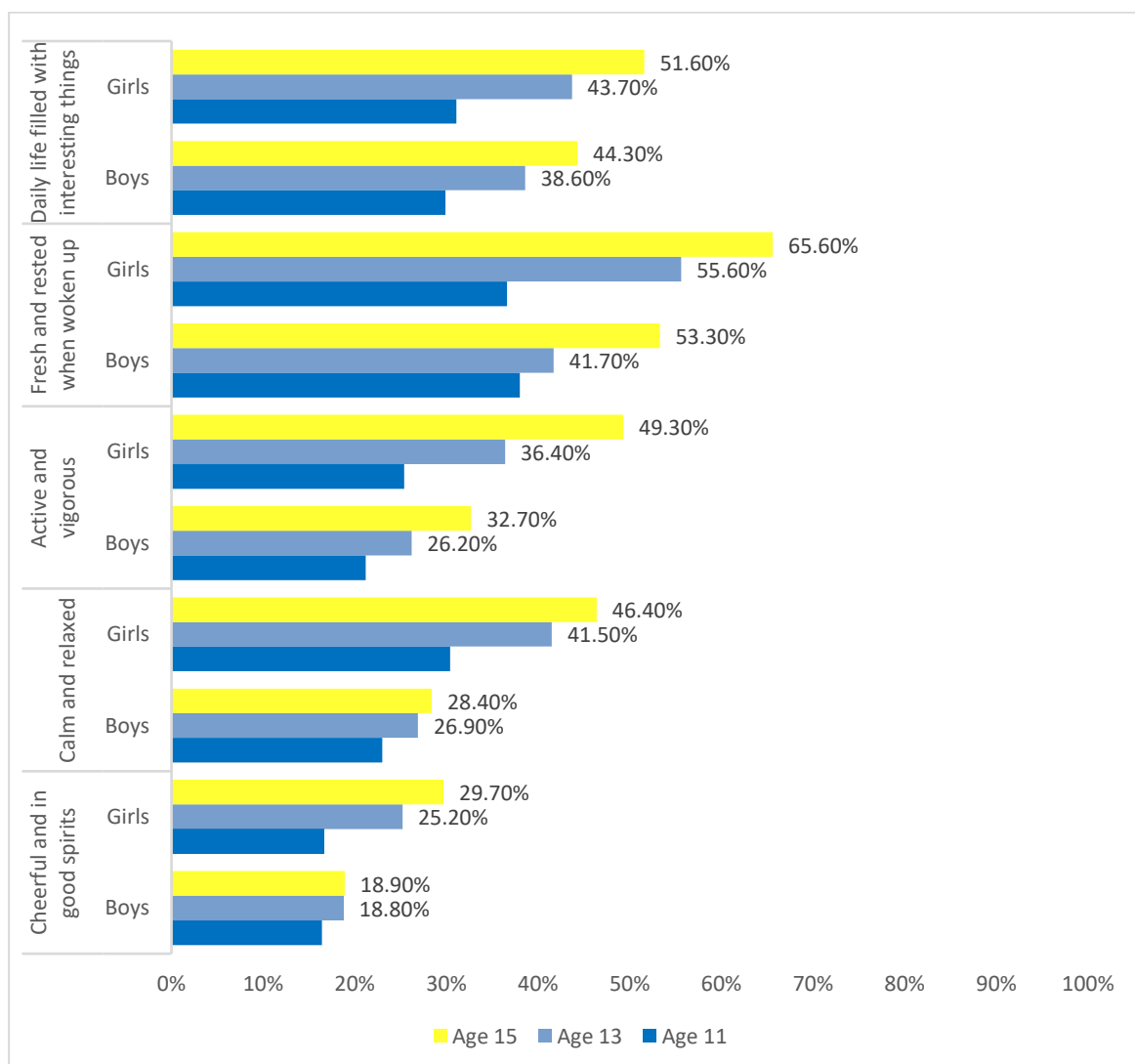
Fig. 25. Percentage of those who report above-average life satisfaction



Well-being

Fig. 26 displays the percentage of various indicators corresponding to lower levels of well-being (indicators reported less than half of the time).

Fig. 26. The five dimensions of well-being (reported less than half the time)



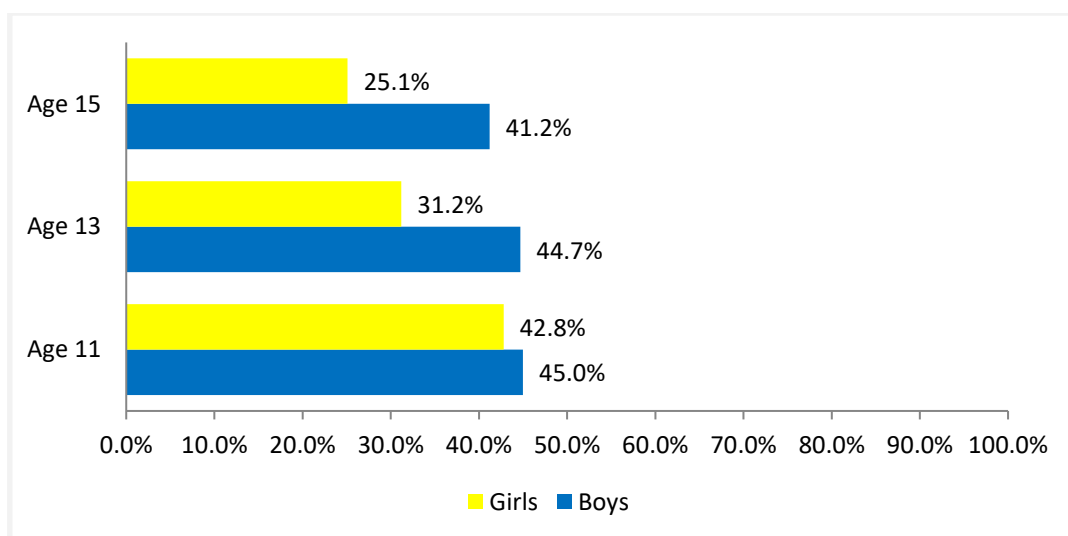
Over a third of girls and a fifth of boys, regardless of age category, reported that they felt calm and relaxed, rested when waking up or that they had a life full of interesting things less than half the time. A decline in well-being was seen in both genders from age 11 to 15 across all five aspects of well-being: participants reported that they felt cheerful, calm, active and rested less than half the time to a greater extent at age 15 compared to age 11 (Fig. 26).

Physical and psychological health

Overall health assessment

In terms of self-evaluated health, a decreasing trend with age is observed, especially for girls. More than 40% of adolescents of both genders reported excellent health at age 11, but for girls it decreased considerably at age 13 (by more than 10%) and at 15 (by almost 18%). More than 40% of boys in all age groups reported that their health was excellent (Fig. 27).

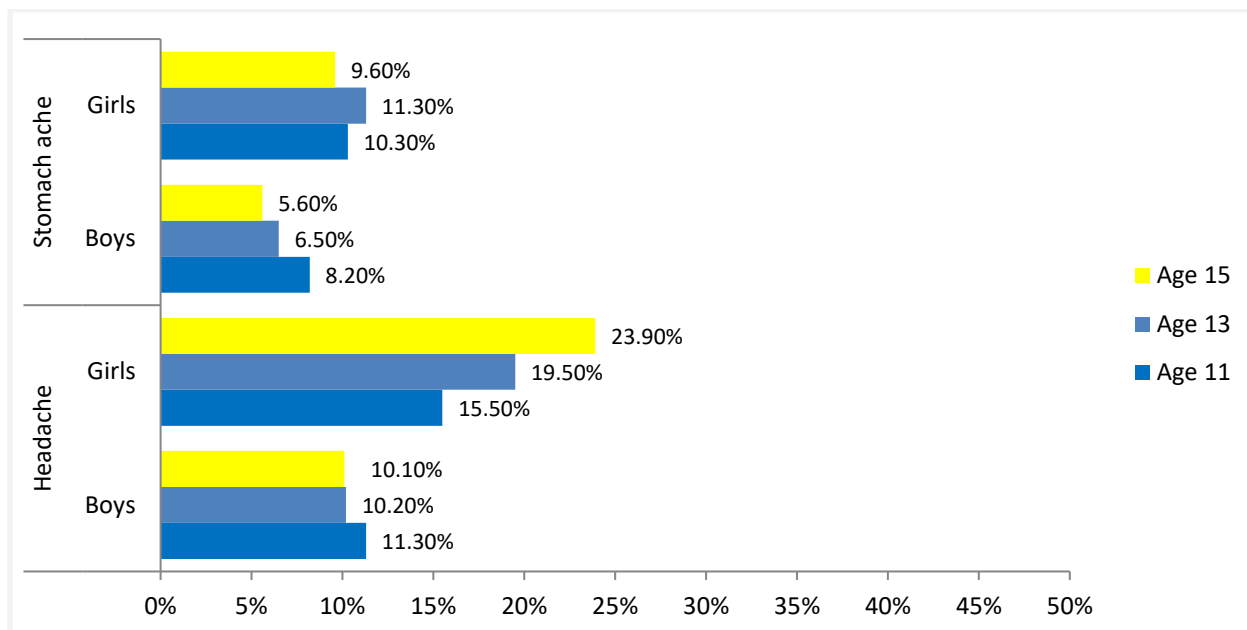
Fig. 27. Percentage of those who reported excellent health



Psychosomatic symptoms

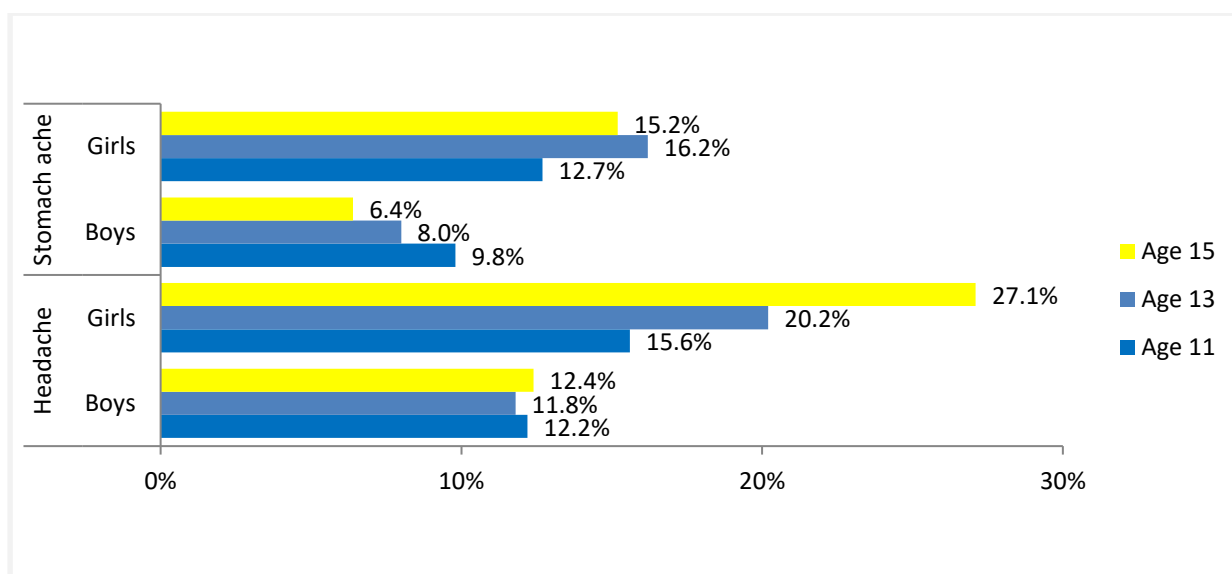
Fig. 28 reveals that in all age groups, a greater percentage of girls report headaches and stomach aches than boys. A relatively constant percentage of boys and girls in all age groups reported weekly frequency of stomach aches, but for symptoms such as headaches, boys reported a slight decrease while girls showed a steep increase.

Fig. 28. Percentage of those who reported somatic symptoms more frequently than once per week



Girls tended to use medication for somatic symptoms to a larger extent than boys. There was also an increase in the percentages of girls who took medication for headaches from age 11 to 13 and to age 15, and an increase in the percentages who took medication for stomach ache from 11 to 13. Among boys, the percentages of those who used medication for stomach ache decreased from age 11 to 15 (a difference of 3.4%) and the percentage of those who used headache medication remained relatively constant (percentage differences of up to 0.6% between the three age categories) (Fig. 29).

Fig. 29. Percentage of those who took medication for somatic symptoms (more frequently than once in the previous month)



Psychological symptoms were reported by a greater proportion of girls than boys in almost all age categories (Fig. 30). Increasing trends in reporting these symptoms were seen in girls between ages 11 and 13 and to age 15. Recorded differences ranged from 11.5% for difficulties

in falling asleep, to 14.4% for sadness and up to 20.4% (representing an increase of over 100%) for nervousness. In boys' case, the trend slightly decreased or remained constant, with differences between the three age groups in the percentage reporting these symptoms not exceeding 7% (for sadness).

Fig. 30. Percentage reporting psychological symptoms (more frequently than once per week)

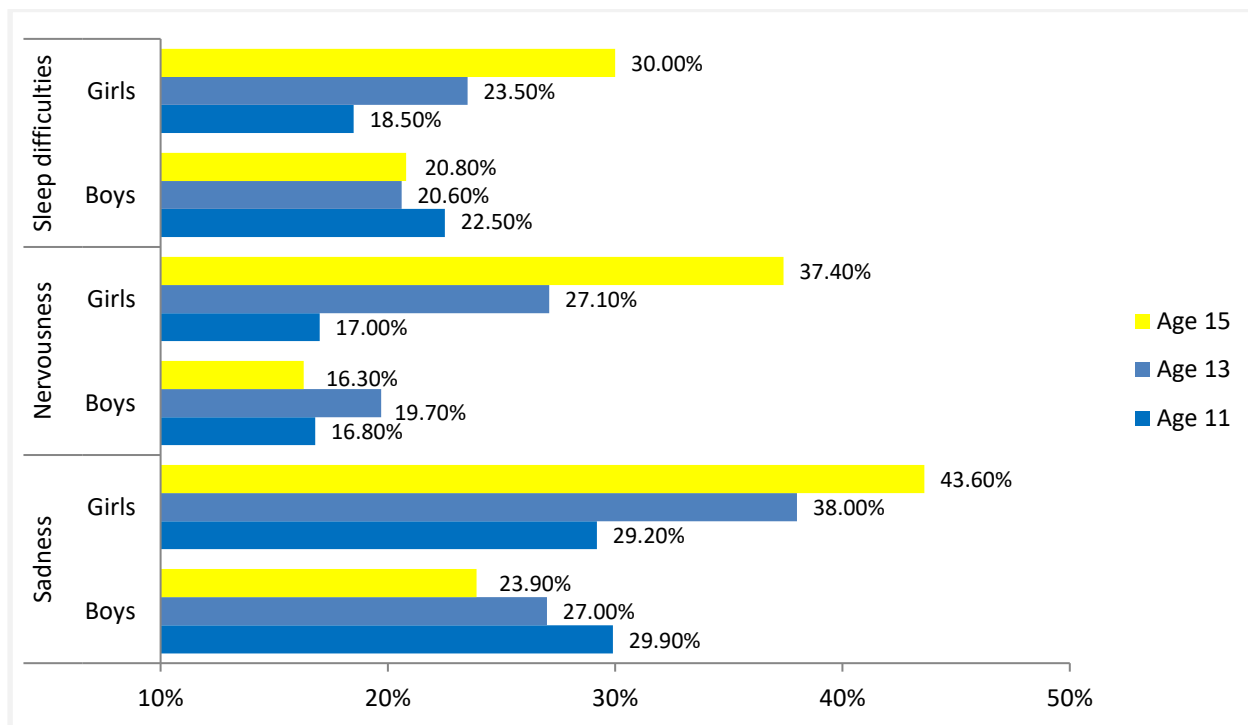
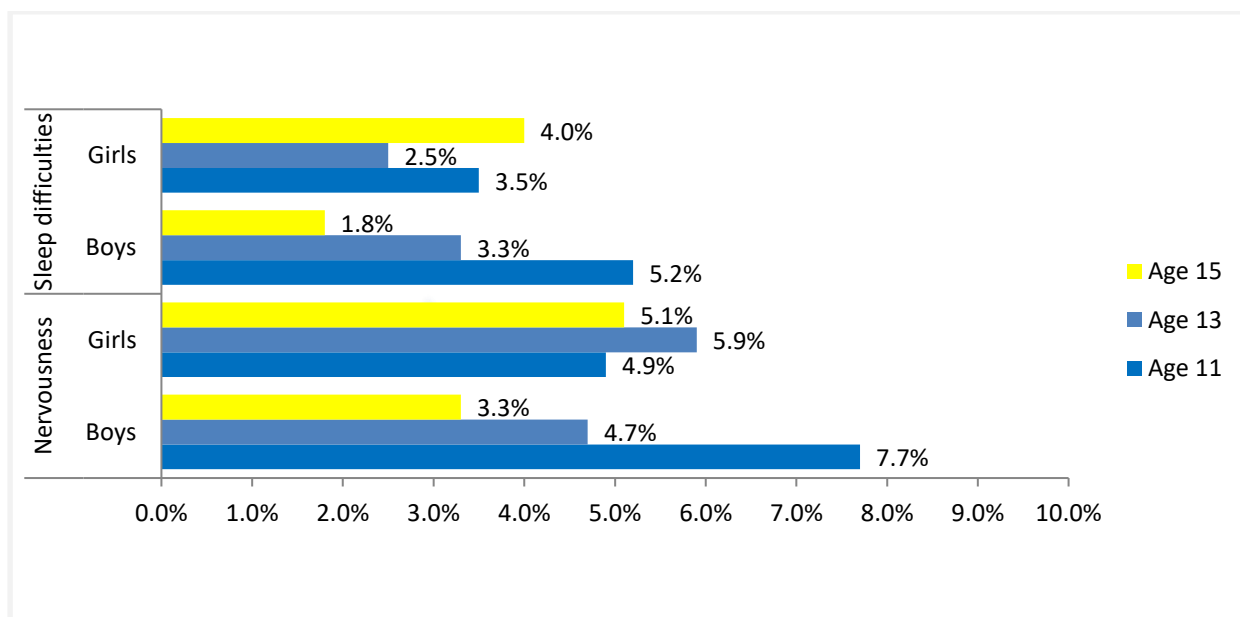


Fig. 31 shows that the percentage of boys who took medication for psychological symptoms decreased with age. There was no noticeable age trend, either increasing or decreasing, for girls in the percentages of those taking medication, and the percentage differences between age groups for both types of problems were small.

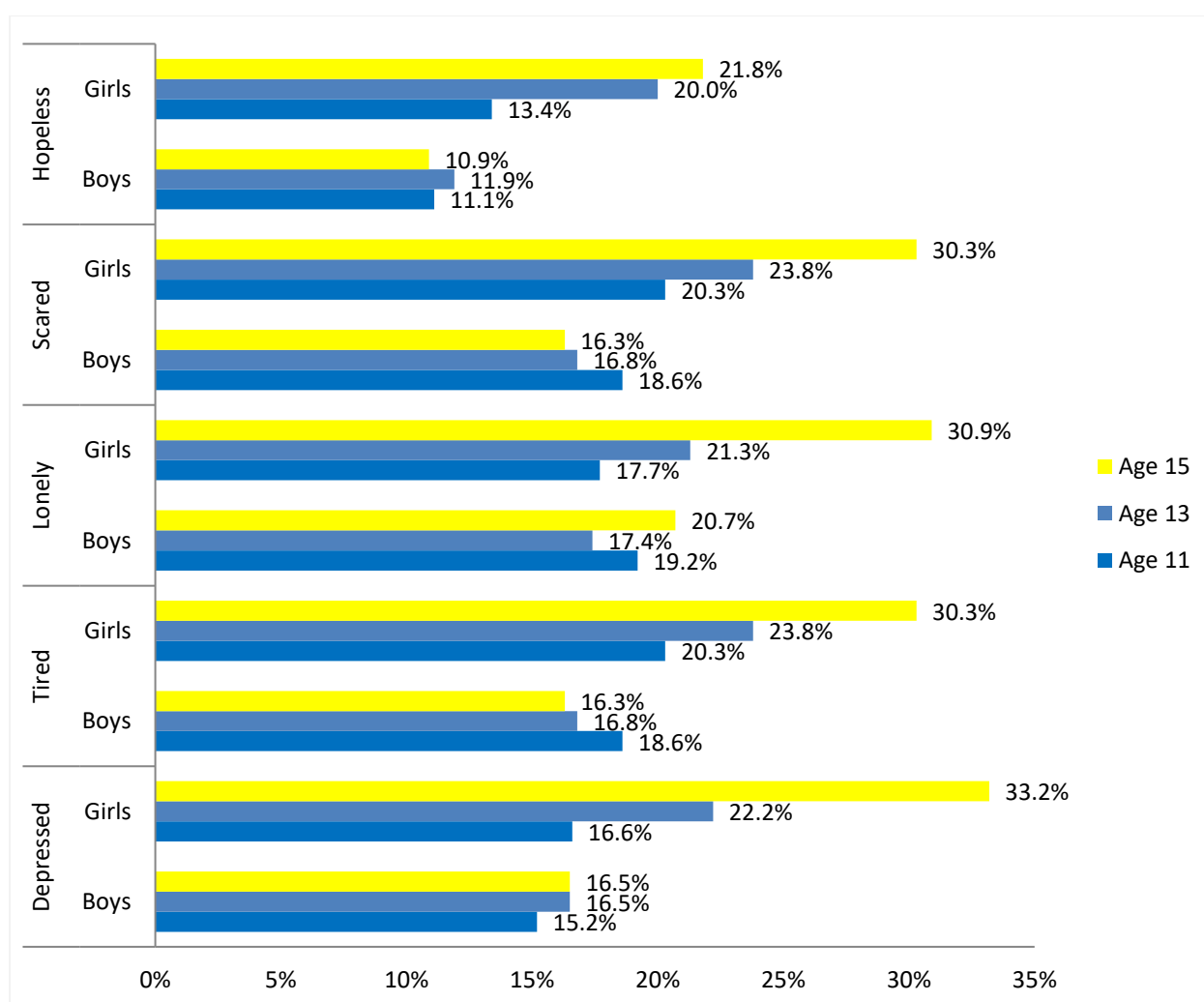
Fig. 31. Percentage of those taking medication for psychological symptoms (more frequently than once per month)



Emotional problems

Fig. 32 shows that in all age groups, girls reported emotional problems such as depression, fear, fatigue, loneliness and hopelessness to a larger proportion than boys. The percentages for depression and hopelessness were two times larger than those for boys of the same age (15 years). Emotional problems became more frequent with age, especially for girls. At 15, one in three girls reported feeling depressed, fatigued, alone or fearful 3–4 times a week, and one in five felt hopeless; at age 11, only fatigue and feelings of fear reached proportions of 20% (one in five). For boys, the increasing trend in the frequency of emotional problems with age was not as clear as for girls: emotional problems such as depression or feeling lonely were reported more frequently after age 11, while hopelessness, fear and fatigue decreased slightly, by a maximum of 2.3% at age 15 compared to age 11.

Fig. 32. Emotional issues (CES-D-R 10^a selection)

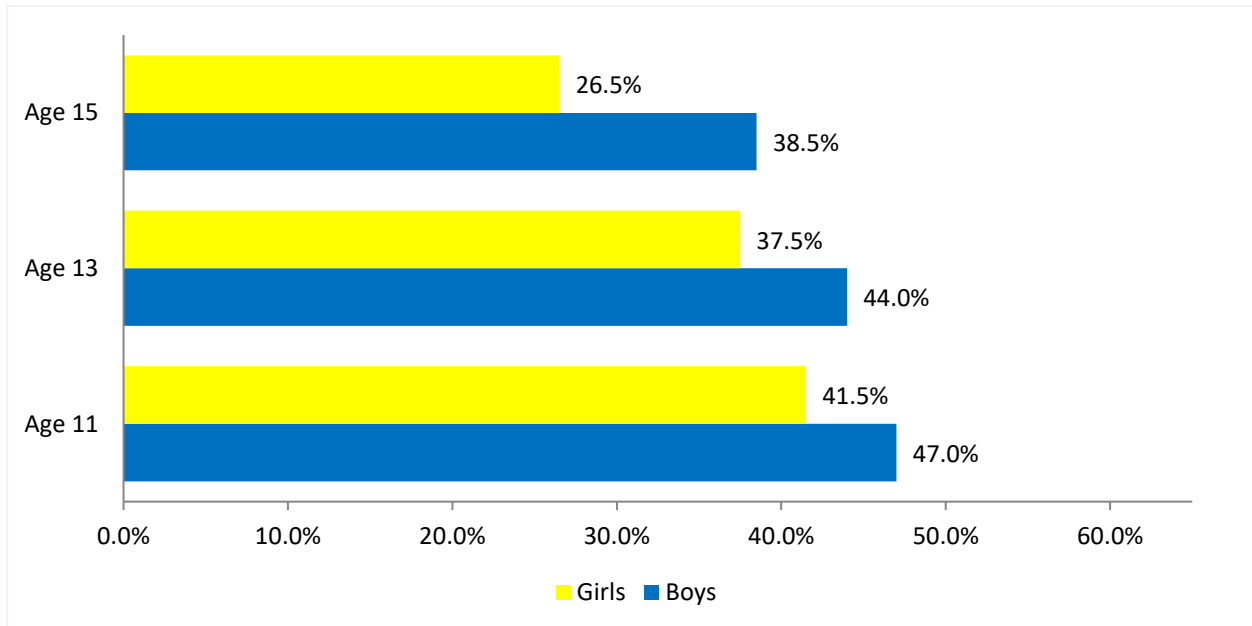


^a CES-D-R 10: Center for Epidemiologic Studies Depression Scale Revised.

Accidents and injuries that required medical care

Fig. 33 shows that almost half of 11- and 13-year-old boys and more than one third of girls of the same ages suffered injuries and accidents that required medical care in the previous year. A decline in these incidents was observed from age 11 to age 15 for both girls and boys. As expected, the percentage of boys who suffered injuries and accidents was higher than that of girls in all three age categories.

Fig. 33. Percentage of those who required medical assistance for treating an injury or an accident (at least once in the last 12 months)

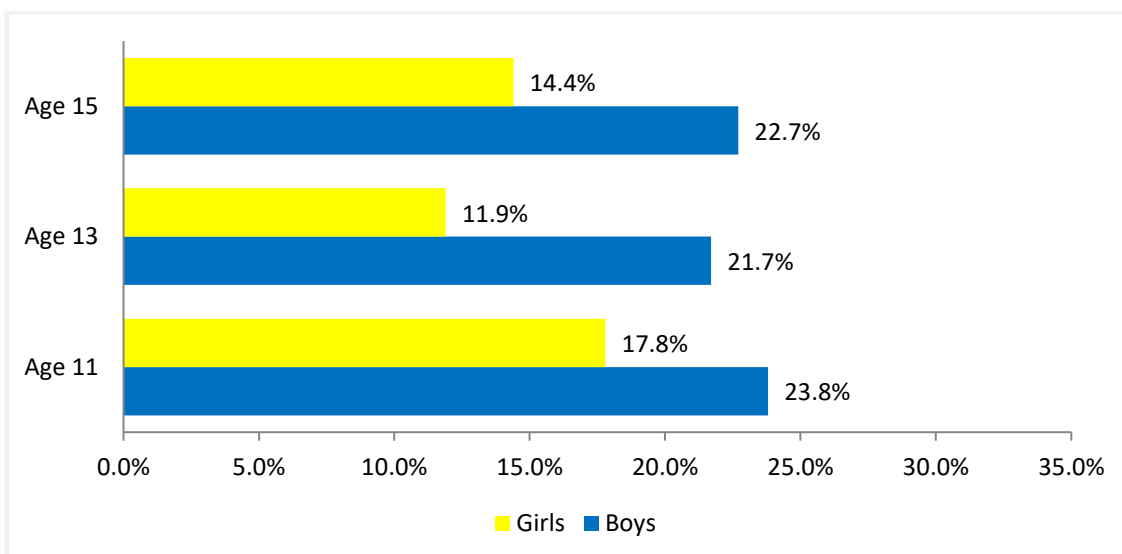


Body weight and body image

Body weight

The data illustrated in Fig. 34 show that, based on BMI and in all age categories, the percentage of overweight and obese boys was significantly higher than for girls in the same age category. The differences were 6% at age 11 and 9.8% at age 13. Overweight/obesity rates were similar (differences of 1–2%) for boys in all age groups, while differences were noticeably higher (between 2.5% and 6%) for girls. There were no clear increasing or decreasing trends for overweight and obesity for either gender with age.

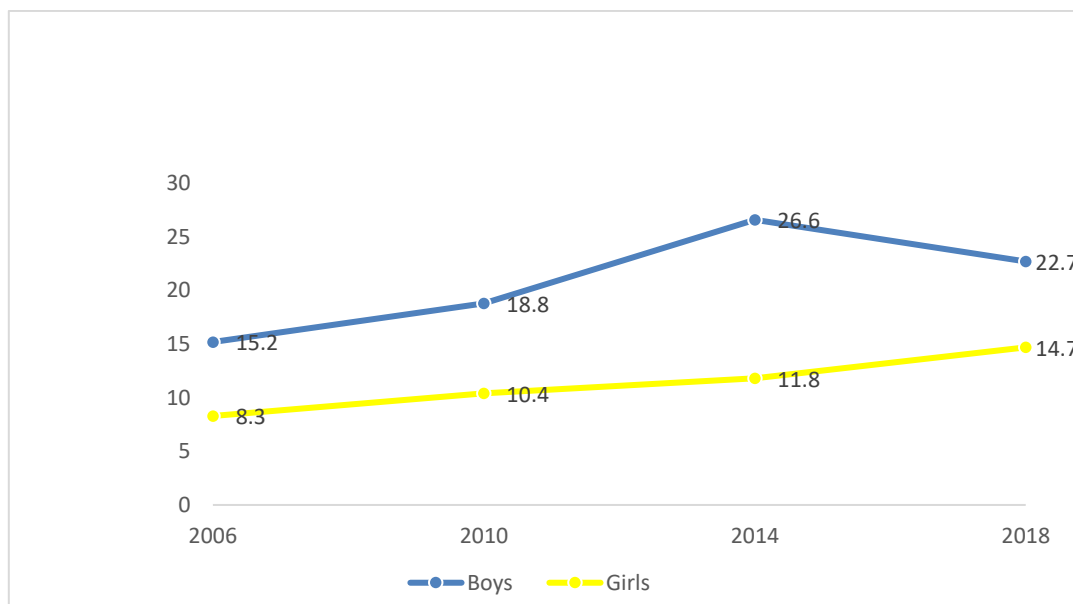
Fig. 34. Percentage of overweight/obese adolescents (based on BMI)



Data collected over the past 12 years show that from 2006 to 2014, overweight and obesity rates had increased for both genders, with 3.5% for girls and 11.4% for boys. This trend was still

increasing in 2018 among girls, while for boys a decreasing downward trend was observed (Fig. 35).

Fig. 35. Percentage of overweight/obese adolescents (based on BMI), 2006–2018

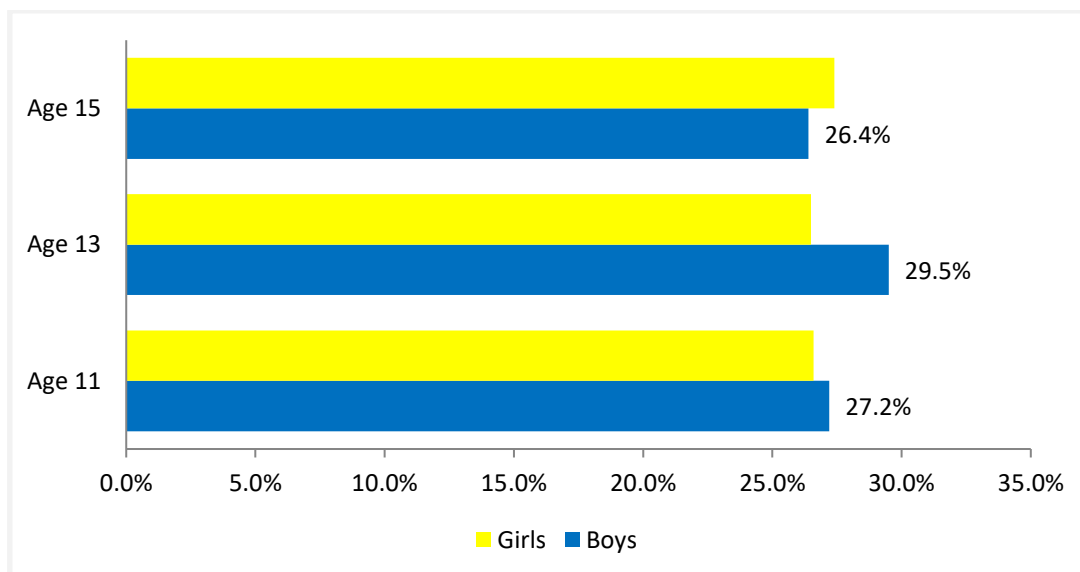


Source: HBSC research 2006, 2010, 2014, 2018.

Body image

Fig. 36 shows that dissatisfaction with own body remained constant at all three age categories for both genders. Surprisingly, dissatisfaction with the body was more pronounced in 11- and 13-year-old boys compared to girls of the same age, while the trend was reversed at age 15. In all age categories, however, percentage differences (girls/boys) were small for this indicator.

Fig. 36. Percentage of adolescents who perceive themselves as too fat



Final considerations

The data presented in this section provide an overview of health perceptions, well-being and the frequency of certain somatic and psychological symptoms across the age categories. Overall,

boys reported better health, fewer physical and somatic symptoms and better well-being than girls across all five dimensions and in all age categories. Worthy of note is the fact that with age, fewer adolescents assess their health as excellent, with sizable gender differences: at age 15, fewer than half of boys and only a quarter of girls consider their health to be excellent. Similarly, life satisfaction plummets with age; this decrease is more pronounced for girls than boys, with gender differences increasing at ages 13 and 15.

There is also an increase, with age, of emotional problems, such as depression, fatigue, loneliness and hopelessness, especially for girls; in some cases, the proportions are twice as big at age 15 than at 11.

Frequency of injuries/accidents that require medical care decreases significantly with age in both genders.

No significant increases in the percentage of overweight/obesity in boys or girls is observed. Trend analysis across the years shows a slight increase in the average percentage of overweight/obesity in girls and a slight decrease in boys.

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Health behaviours



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Eating behaviour

Introduction

Eating behaviours play a key role in children's healthy development (Whitaker et al., 1997). Desirable eating habits, such as having regular daily meals and high fruit and vegetable consumption, contribute to physical and intellectual development and maintenance of normal weight (te Velde et al., 2007). By contrast, unhealthy eating habits pose risk factors that can influence the occurrence of chronic disorders such as diabetes mellitus, cardiovascular disease or certain types of cancer (Tirosh et al., 2011).

Measuring instruments

Eating behaviour was assessed through three questions (Table 5).

Table 5. Questions: eating behaviour

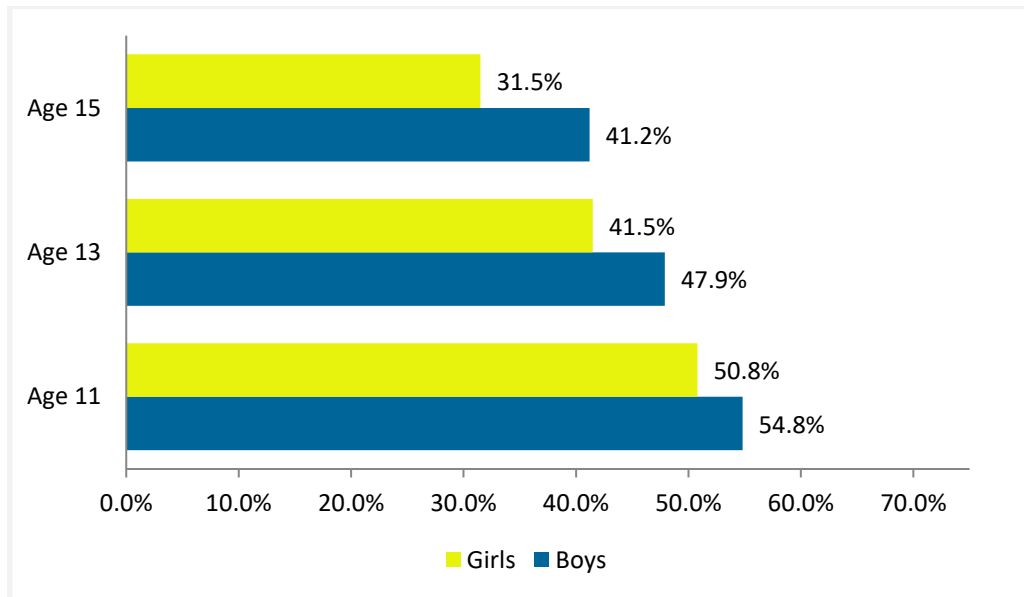
Topic	Questions	Comments
Eating behaviour	How often do you usually have breakfast?	For weekdays and weekends, answers ranged from 1 – never to 6 – five days (for each day of the week) and from 1 – never to 3 – I usually have breakfast on both days (for the days of the weekend). The reported data reflect the percentage of pupils who ate breakfast on all days of the week and both weekend days.
	How many times a week do you: eat fruit, vegetables and sweets; drink soft drinks or energy drinks?	The possible answers ranged from 1 – never to 7 – every day/more than once a day. The percentage of adolescents who reported eating/drink the respective item at least once each day.
	How often do you have meals with your family?	The possible answers ranged from 1 – every day to 5 – never. The percentage of adolescents who ate with their families daily, once or several times, was reported.

Results

Eating breakfast during the week and at weekends

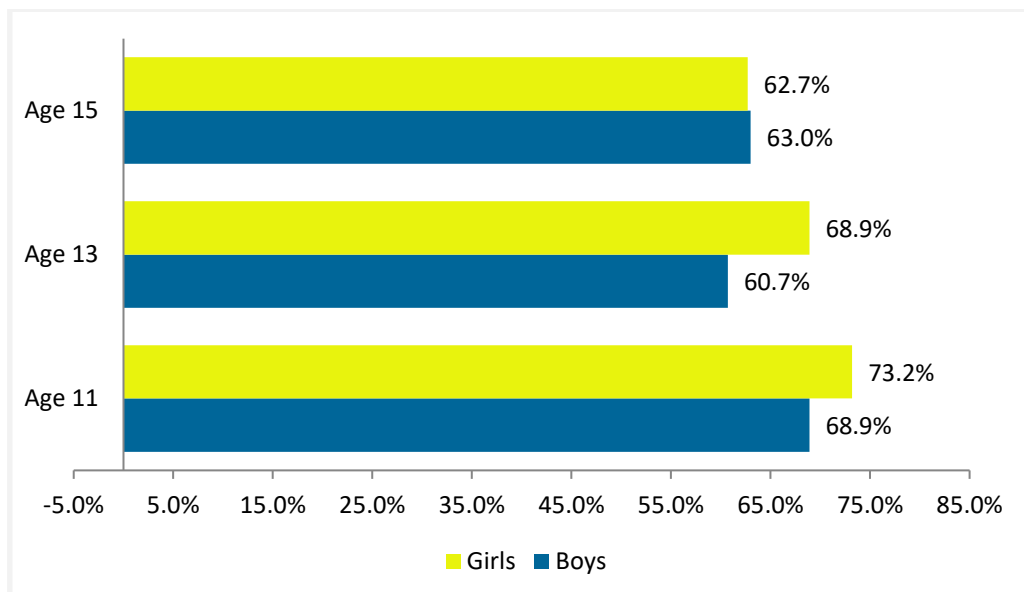
A low percentage of adolescents had breakfast daily during the week. The data show that the proportion of girls and boys eating breakfast decreased with age, with the descending trend being more pronounced in girls (Fig. 37).

Fig. 37. Percentage of adolescents who eat breakfast daily during the week



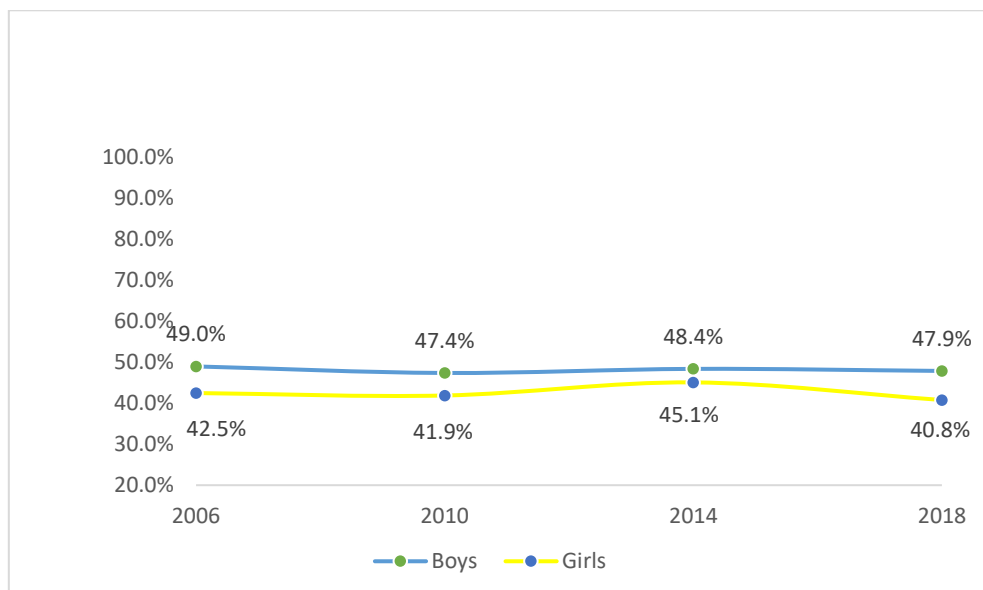
The results displaying family meals during weekends are shown in Fig. 38. The percentage of adolescents eating breakfast increased during weekends, with no significant gender differences.

Fig. 38. Percentage of adolescents who eat breakfast on both weekend days



Rates of eating breakfast daily are relatively constant across the four waves of data collection in HBSC Romania (Fig. 39). Boys have breakfast in a consistently larger proportion than girls.

Fig. 39. Percentage of adolescents who eat breakfast daily, 2006–2018

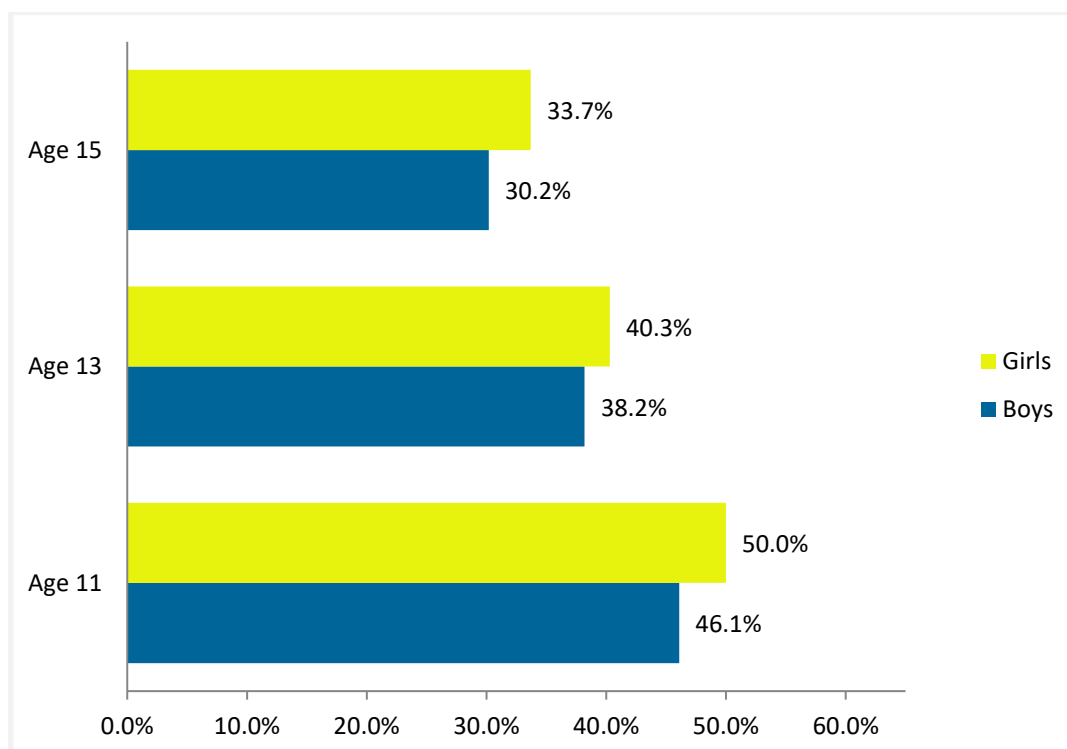


Source: HBSC research 2006, 2010, 2014, 2018.

Healthy diet

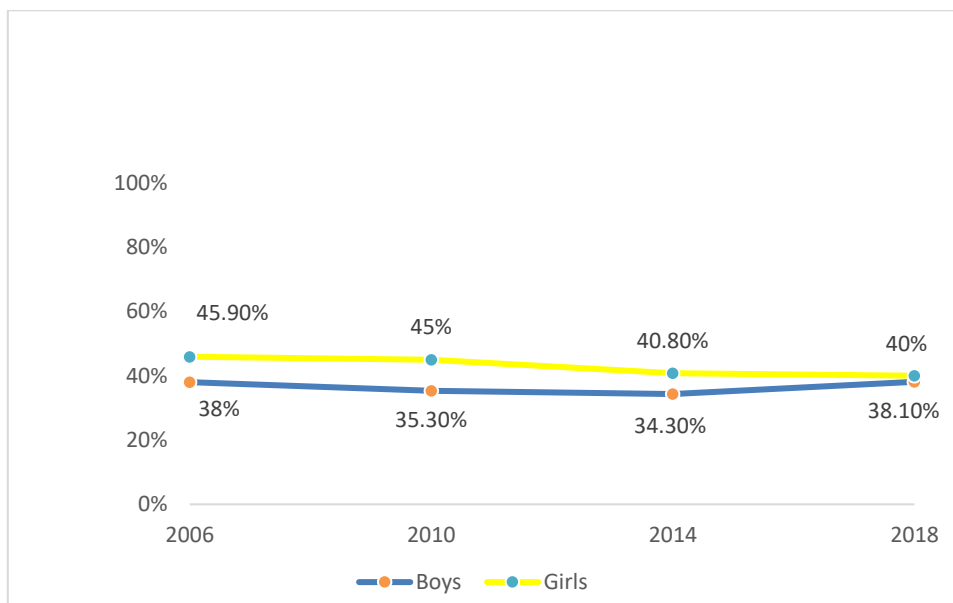
The figures in this section present the percentage of adolescents who reported daily consumption (at least once per day) for each category of food/beverages (fruit, vegetables, sweets, carbonated drinks and energy drinks). Fig. 40 shows that girls generally consumed more fruit than boys. Age and gender differences for this behaviour were significant. In both genders, there is a marked decrease in daily fruit consumption between 11 and 15 years.

Fig. 40. Percentage of adolescents who eat fruit daily



Time trend analysis for fruit consumption reveals a slight decreasing path for girls (Fig. 41), whereas for boys, the trend does not consistently decrease or increase between 2006 and 2018.

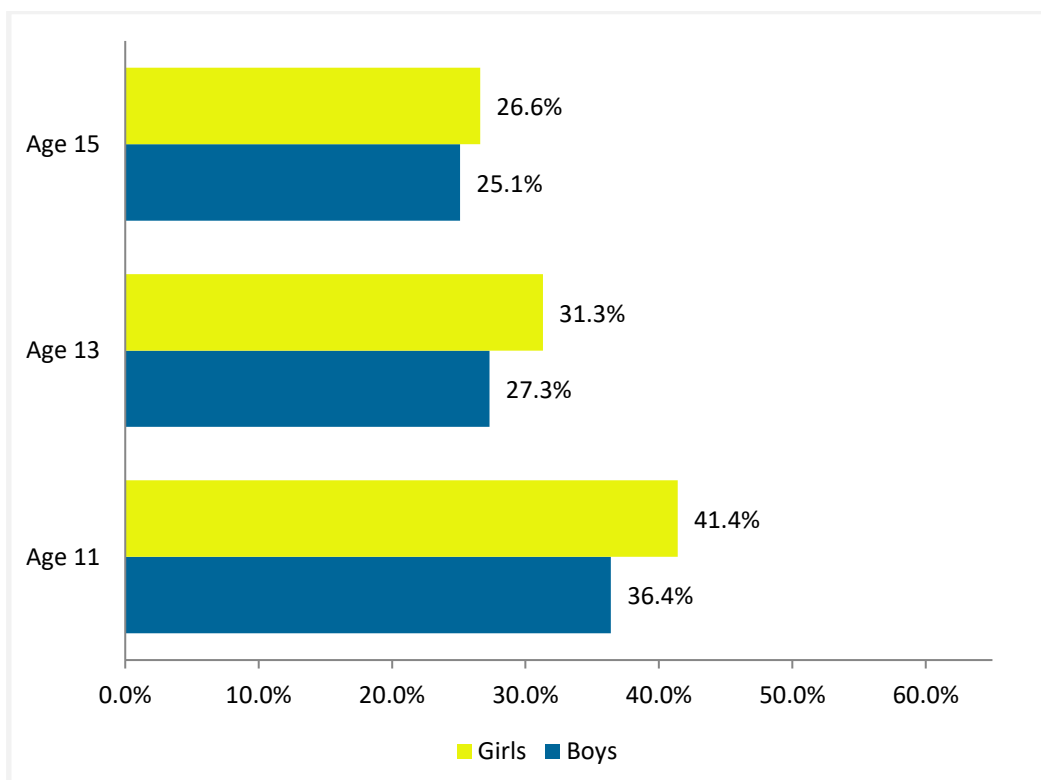
Fig. 41. Percentage of adolescents who eat fruit daily, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

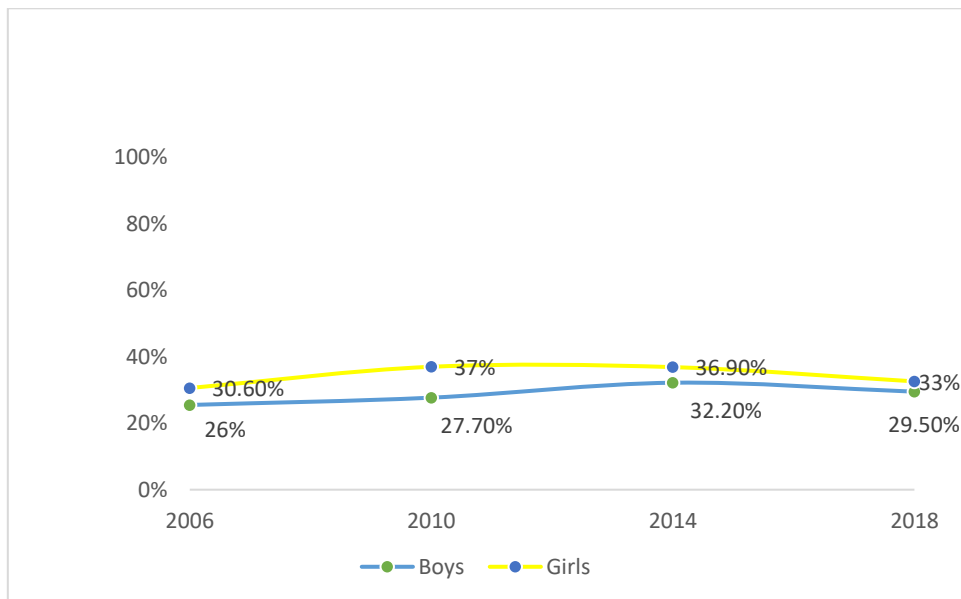
Low daily vegetable consumption was observed overall for both girls and boys regardless of age. There was also a steady decline in consumption of vegetables from age 11 to 13 for both genders (Fig. 42). Recorded gender differences were statistically significant only in the case of 11-year-olds.

Fig. 42. Percentage of adolescents who eat vegetables daily



Analysis of the trend of vegetable consumption in adolescents (Fig. 43) indicates a decrease in 2018 compared to 2014 for both girls and boys.

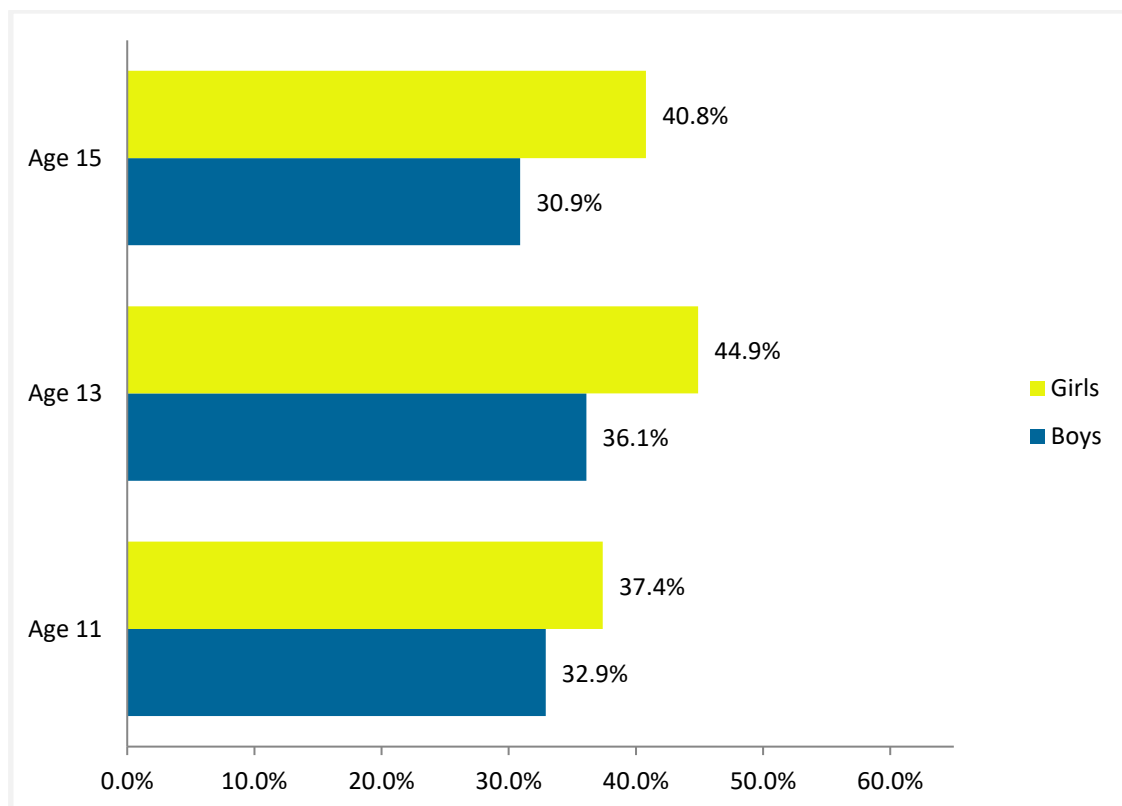
Fig. 43. Percentage of adolescents who eat vegetables daily, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

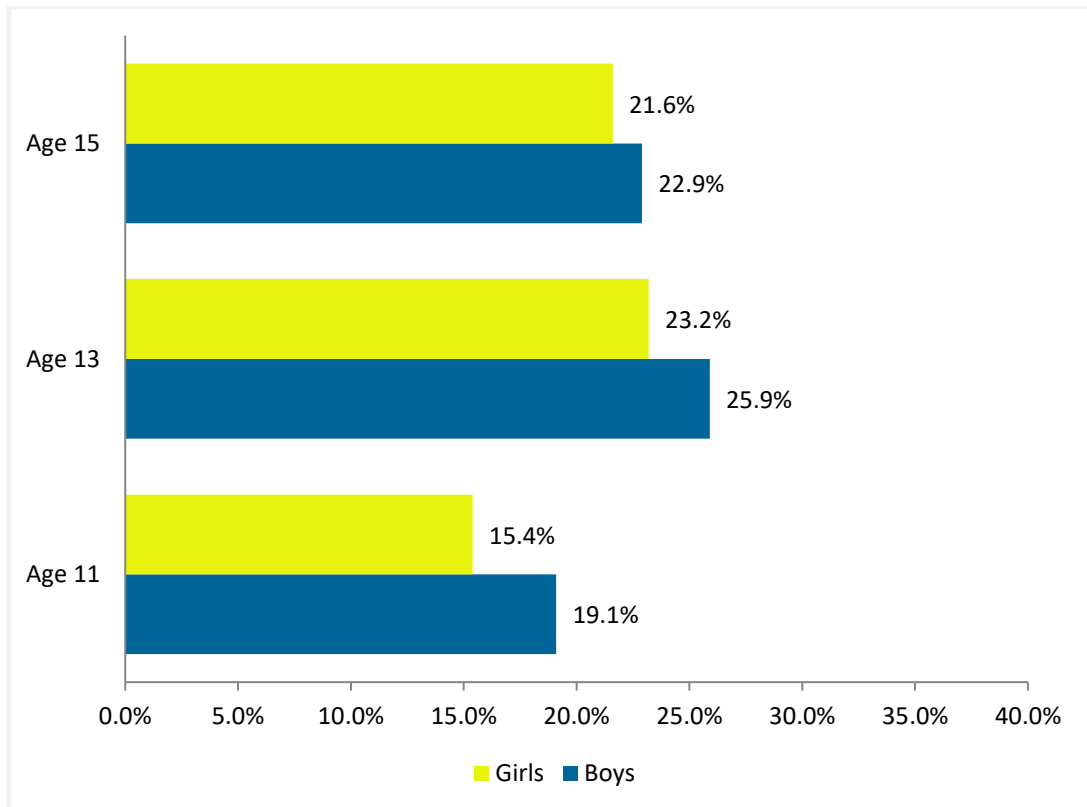
Data for the daily consumption of sweets are shown in Fig. 44. Girls consistently consumed more sweets than boys, regardless of age.

Fig. 44. Percentage of adolescents who eat sweets daily



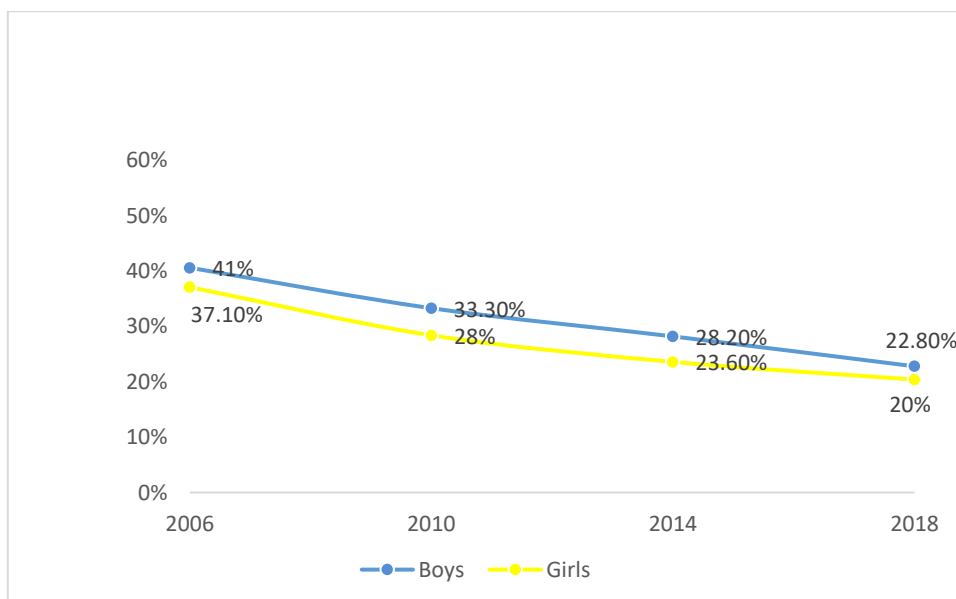
The frequency of adolescents who consumed soft drinks daily is shown in Fig. 45. Age differences were significant only for girls, for whom an increase in daily consumption of soft drinks at age 13 and a slight decrease at 15 are seen.

Fig. 45. Percentage of adolescents who drink soft drinks daily



Consumption of soft drinks showed a steady decreasing trend between 2006 and 2018 for both genders (Fig. 46). A slight trend for boys to consume more sweetened beverages than girls was noted.

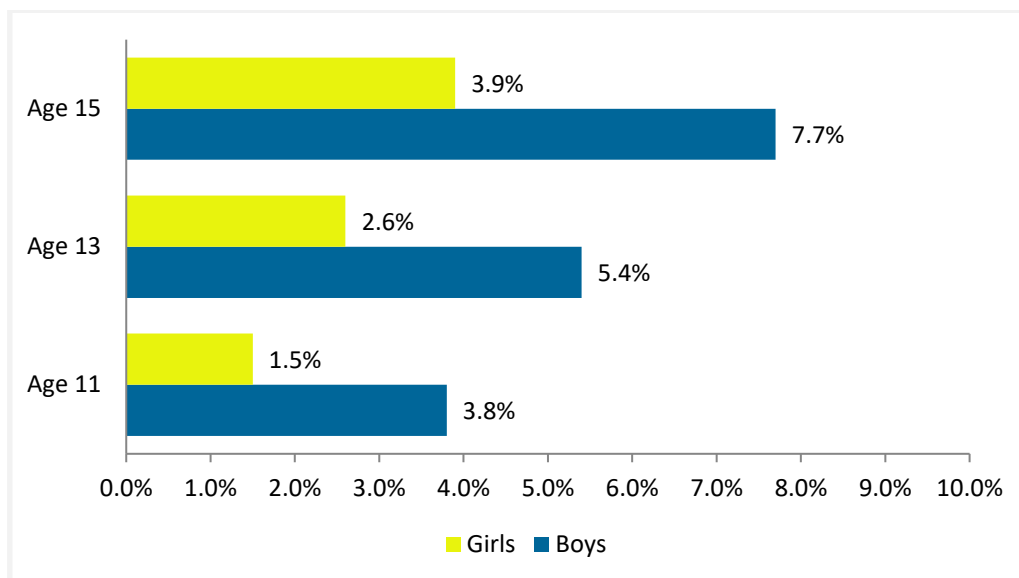
Fig. 46. Percentage of adolescents who consume soft drinks daily, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Data on daily consumption of energy drinks (Fig. 46) indicate increased consumption with age that is more pronounced for boys than girls. The percentage of boys who consumed daily energy drinks was greater than for girls.

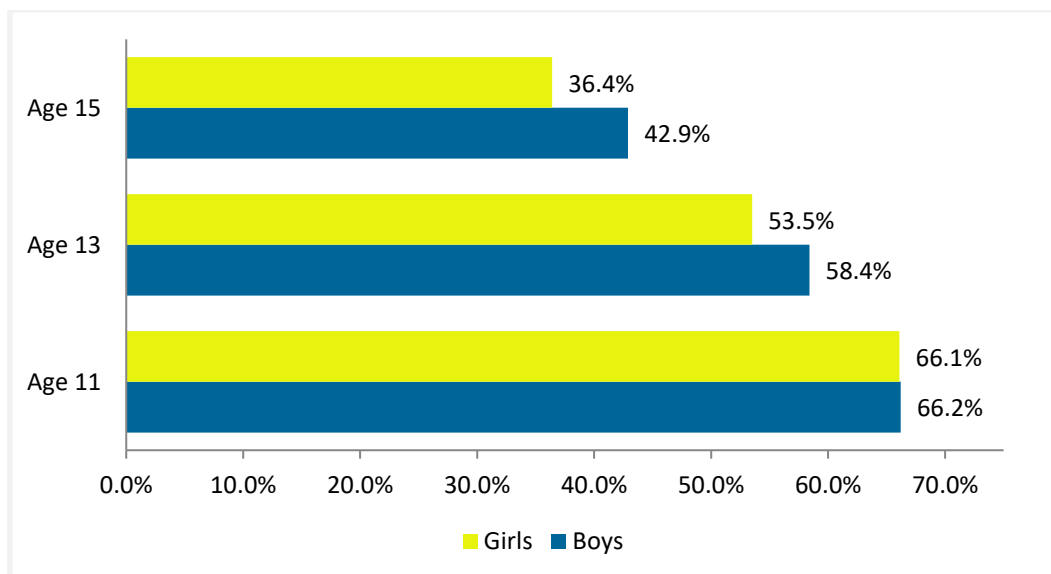
Fig. 47. Percentage of adolescents who consume energy drinks daily



Family meals

Recorded data on the frequency of family meals are shown in Fig. 48. Statistical analyses reveal significant age differences for both genders. The frequency of family meals decreased with age similarly in both genders up to age 13. The observed gender difference becomes significant at age 15.

Fig. 48. Percentage of adolescents who have daily family meals



Final considerations

The HBSC 2018 data indicate that rates of eating breakfast daily remain suboptimal, practised by fewer than half of 11-, 13- and 15-year-olds. The percentages of girls and boys who have daily breakfasts decrease with age but the trend is more pronounced in girls. There were no significant changes in daily breakfast between 2006 and 2018.

Regarding eating habits, 11-year-olds eat more fruits, vegetables and sweets and have fewer carbonated beverages than 15-year-olds, for both girls and boys. The age of 13 is a turning point, a period of vulnerability when the frequency of unhealthy habits (consumption of sweets and

carbonated beverages) increases, followed by a slight improvement at age 15. The frequency of family meals decreases with age.

The trends analysis (2006–2018) indicates a slight decrease in healthy behaviours among adolescents in, for instance, fruit and vegetable consumption. Interestingly, this is not replicated by an increase in consumption of unhealthy food (such as consumption of carbonated sweetened beverages). These data show a need for health education programmes for adolescents to help them develop healthy behavioural habits.

Physical activity and sedentarism

Introduction

Physical activity is a basic human need (Cavill et al., 2006). Despite this, WHO data show that the physical activity levels of approximately two thirds of the adult population of European Union Member States is below the recommended level. One of the main causes is the high degree of mechanization and technicalization of everyday life, both at work and home (Caspersen et al, 1985), allied to an increase in the number of people who engage more in sedentary activities during their free time (such as watching TV programmes and playing computer games) to the detriment of physical activities (like walking, cycling and gardening) (Samdal et al., 2006).

Reductions in levels of physical activity and increases in sedentary activities are associated with an increase in the rate of overweight/obesity in children and adults, frequently accompanied by medical and psychosocial problems (Sallis & Patrick, 1994).

This section aims to provide synthetic data on self-reported physical activity levels of adolescents.

Measuring instruments

Physical activity and how people spend their free time were assessed through three questions (Table 6).

Table 6. Questions: physical activity and sedentarism

Topic	Questions	Comments
Physical activity and sedentarism	Throughout the last seven days, how many days have you engaged in physical activities with a total duration of at least 60 minutes per day?	Response options ranged between zero and seven days. In the results analysis, the percentage of those who reported that they participated in physical activity for at least one hour each day were taken into account.
	Outside of physical education classes, how often do you exercise?	Response options ranged from zero hours to 6–7 hours or more. The responses to the two questions (frequency and duration) were analysed together and the percentage of those who performed physical activities at least 4–6 times per week for approximately one

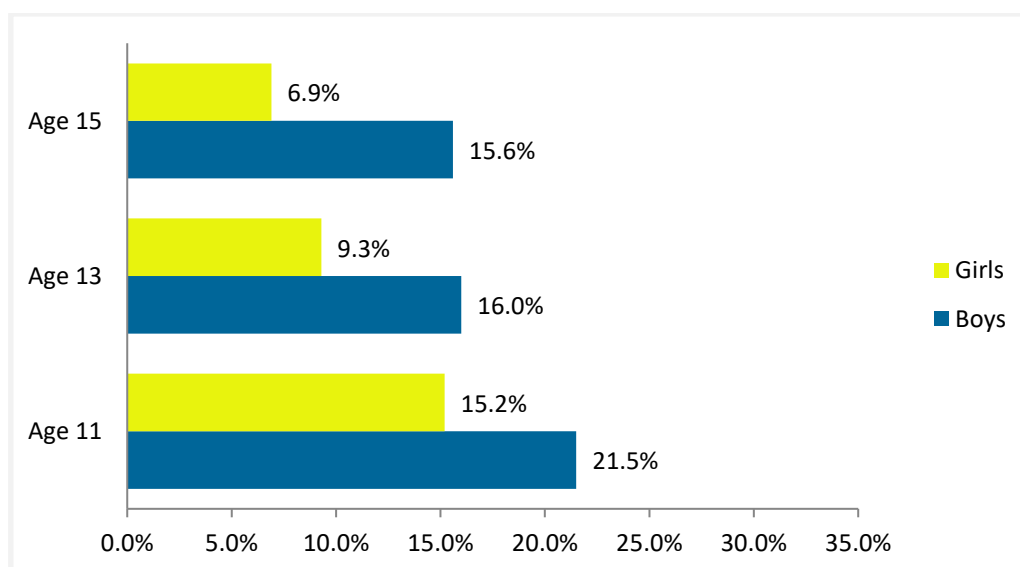
Topic	Questions	Comments
		hour were reported.
	Approximately how many hours a day do you spend your free time: i) watching TV/video ii) using the computer to do homework or communicate?	Possible answers for each question ranged from 1 – not at all to 9 – about seven hours or more per day. The questions were phrased separately for weekdays and weekends. A unique criterion was used for dividing the answers by splitting the pupils into two categories: those who used TV/computer daily for less than two hours and those who spent two hours or more in front of the TV/computer. The percentage of those using the TV/computer for two hours or more per day was taken into account.

Results

Physical activity during the past week

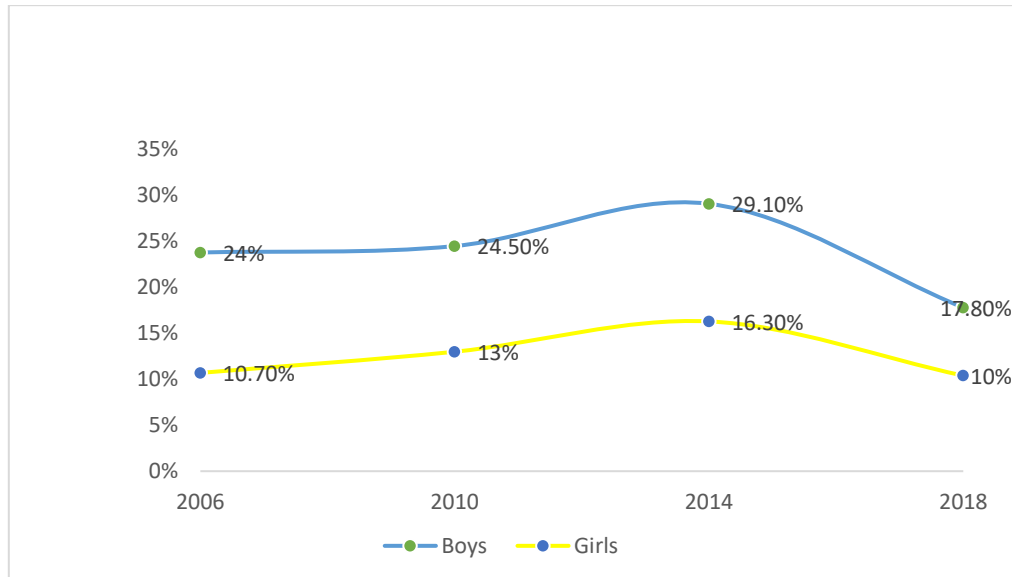
Fig. 49 the low percentage of adolescents who participated in daily physical activity in compliance with the minimum WHO criteria. There is also a decrease with age in the number of physically active adolescents, both girls and boys. Across all age categories, a higher percentage of boys engaged in physical exercise.

Fig. 49. Percentage of adolescents who participate in daily physical activities for at least 60 minutes



Time trends for daily moderate physical activity indicates a steep decrease in frequency in 2018 following increases in previous years, with rates reaching or even going below those recorded in 2006 (Fig. 50). This decrease is more pronounced in boys and is sharper between 2014 and 2018.

Fig. 50. Percentage of adolescents who participate in moderately vigorous physical activity on a daily basis, 2006–2018

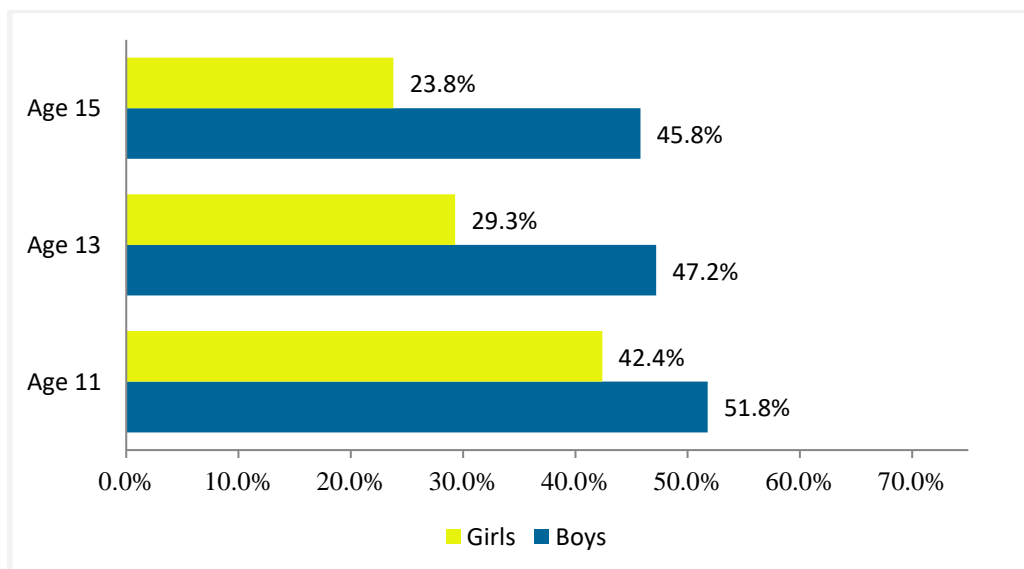


Source: HBSC research 2006, 2010, 2014, 2018.

Physical activity outside classes

Physical activity outside the school context (physical education classes) had a similar distribution to those discussed in the previous section. The percentage of adolescents who participated in physical exercise outside school classes at least four times per week is presented in Fig. 51. This shows significant differences between 11-, 13- and 15-year-old boys and girls, with a significant decrease with age recorded for both genders.

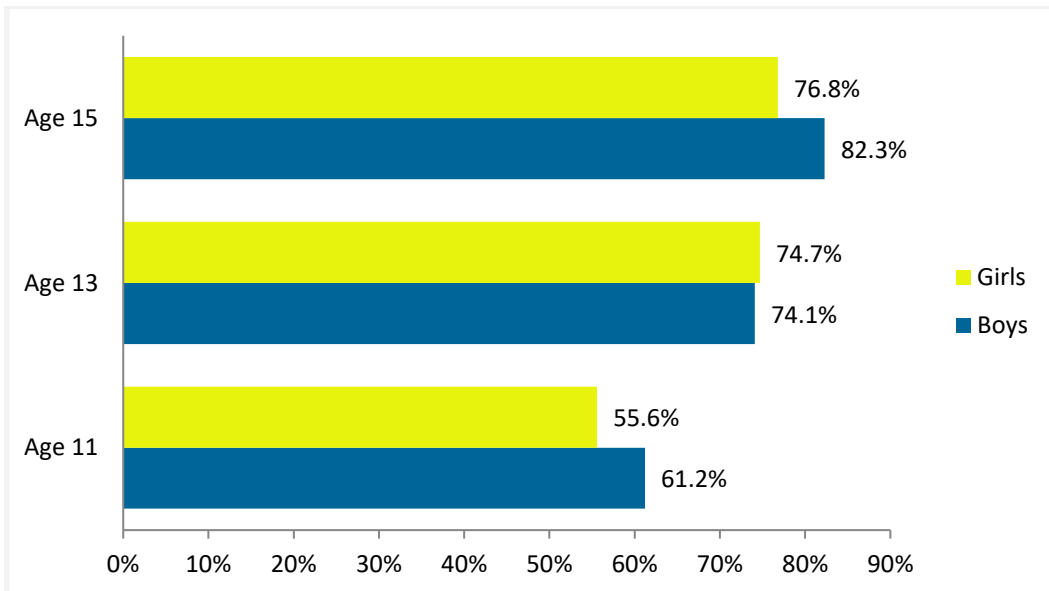
Fig. 51. Percentage of adolescents who participate in vigorous physical exercises outside classes at least four times a week



Free time spent in front of the TV/DVD or computer/tablet

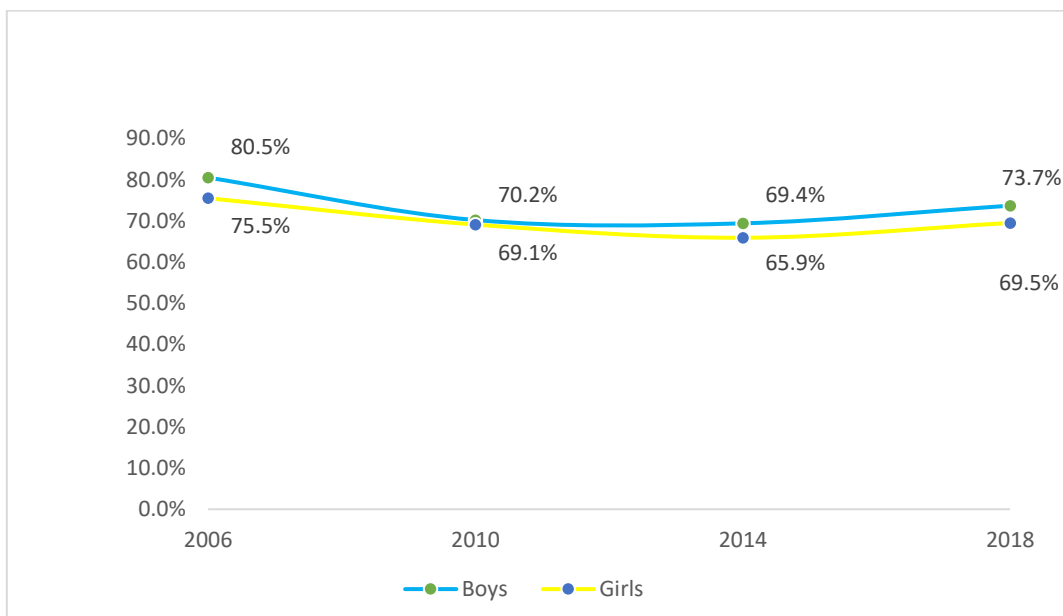
Results for watching TV/video during the week are presented in Fig. 52. Significant gender differences were recorded only for ages 11 and 15 (girls spent significantly less time during the week watching TV/video compared to boys of the same age); the other differences were statistically insignificant.

Fig. 52. Watching TV, DVD, YouTube during the week (for at least two hours)



Trends analysis indicates an increase in the frequency of this behaviour in 2018 compared to 2014 (Fig. 53), after a decrease was recorded between 2006 and 2014. Across time points, a higher proportion of boys spend two hours or more in front of screens rather than girls.

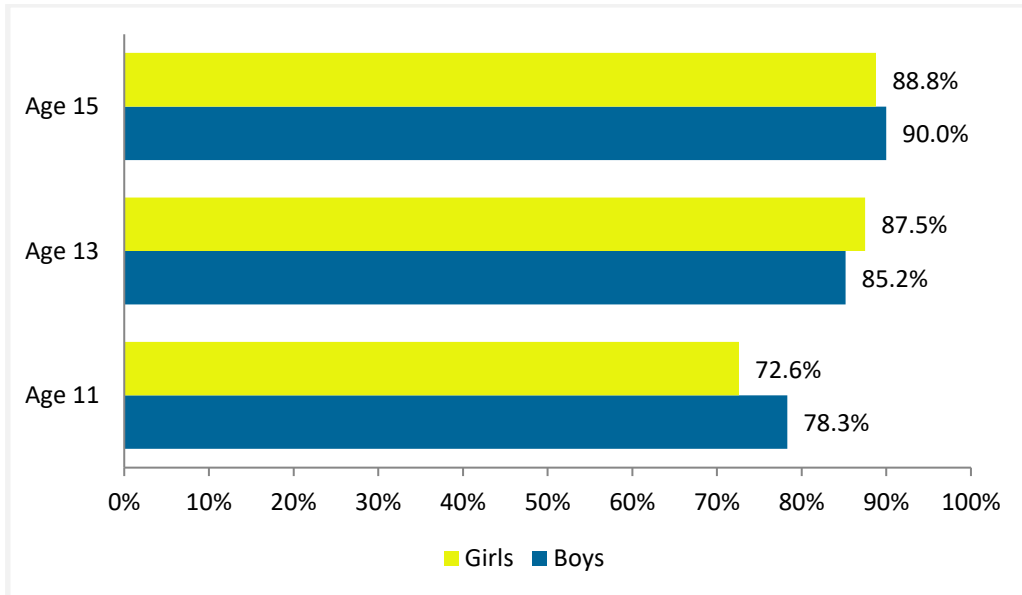
Fig. 53. Percentage of adolescents who spent at least two hours each day in front of the TV/DVD, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

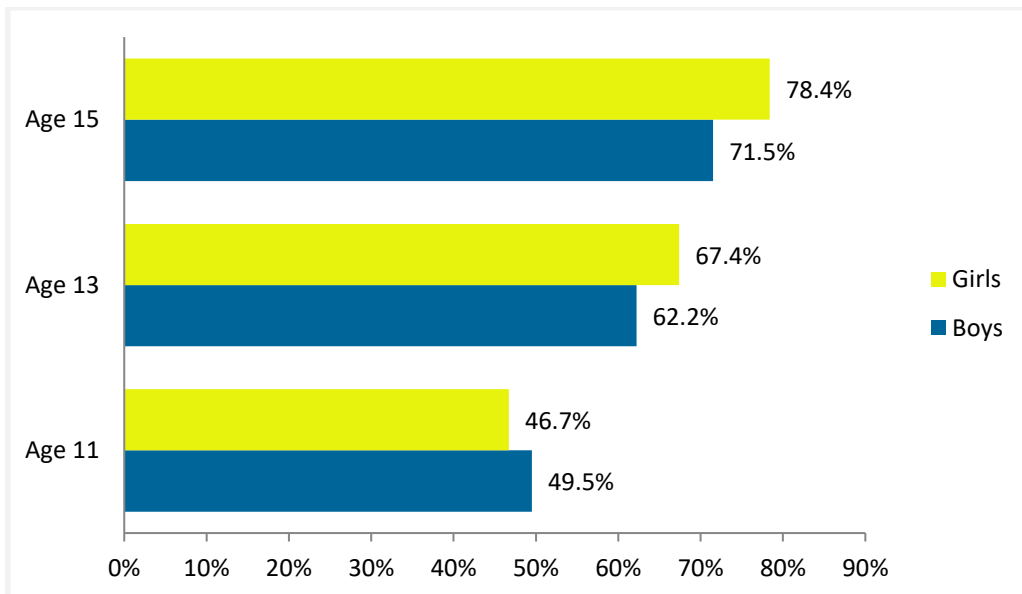
The data recorded for weekends (Fig. 54) indicate a similar distribution, the only significant gender difference being registered at age 11.

Fig. 54. Watching TV, DVD, YouTube during weekends (for at least two hours)



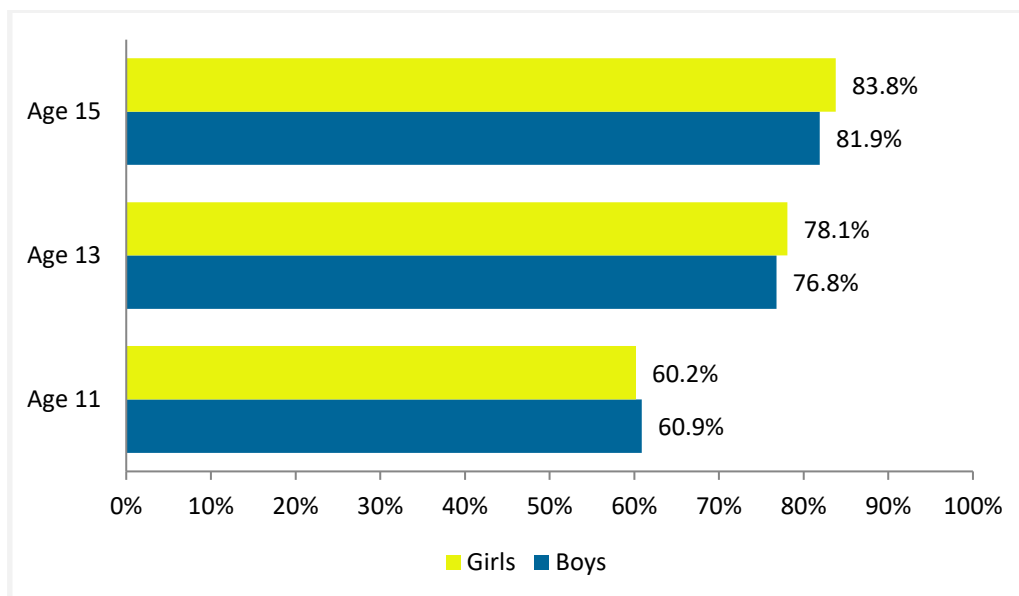
The use of computers or tablets during the week was higher among girls (Fig. 55), with the difference passing the statistical significance threshold for ages 13 and 15. Generally, the frequency of this behaviour increased with age.

Fig. 55. Using computers and tablets during the week (for at least two hours)



Data on time spent in front of the computer/tablet during weekends (Fig. 56) indicates the same trend of increase in frequency with age, but with no gender differences recorded for any of the age categories.

Fig. 56. Using computers and tablets during weekends (for at least two hours)



Final considerations

The percentage of 11-, 13- and 15-year-olds who report participating in physical activity in the last week in compliance with WHO recommendations is worryingly low (17.8% of boys and 10.4% of girls). Participation in physical activity decreases with age, with differences between girls and boys remaining constant in all age categories.

Increases in rates of sedentary behaviours occur simultaneously with reductions in physical activity. The percentage of those who spend at least two hours every day in front of the TV or computer steadily increases with age. Approximately two thirds of adolescents watch TV two or more hours during weekdays, with rates going higher during weekends. The analysis of trends between 2006 and 2018 clearly indicates a significant reduction in the frequency of physical activity and an increase in sedentary behaviours for the last HBSC data-collection point.

The results point to the pressing need to increase the frequency of physical activity, regardless of form, among Romanian pupils. Promoting physical activity as part of a healthy lifestyle may include the following:

- increasing the number of physical education classes in school curriculums, with alterations to school infrastructure to enable this;
- extending the number of clubs that offer opportunities for participating in sport under specialist guidance; and
- initiating regular sporting events that become part of schools' and communities' cultures by encouraging short vigorous exercises as a form of recreation.

Oral health

Introduction

Oral health is one of the indicators of general health and an essential factor for well-being. Good oral health means the lack of periodontal conditions, dental caries or other diseases that affect the oral cavity. Numerous studies show that children's oral hygiene behaviours are heavily

influenced by the environment in which they are educated. An increase in frequency of adoption of oral hygiene behaviours is observed with age (Honkala et al., 2015).

Measuring instruments

The frequency with which pupils adopt oral hygiene behaviours was measured by a single item, shown in Table 7.

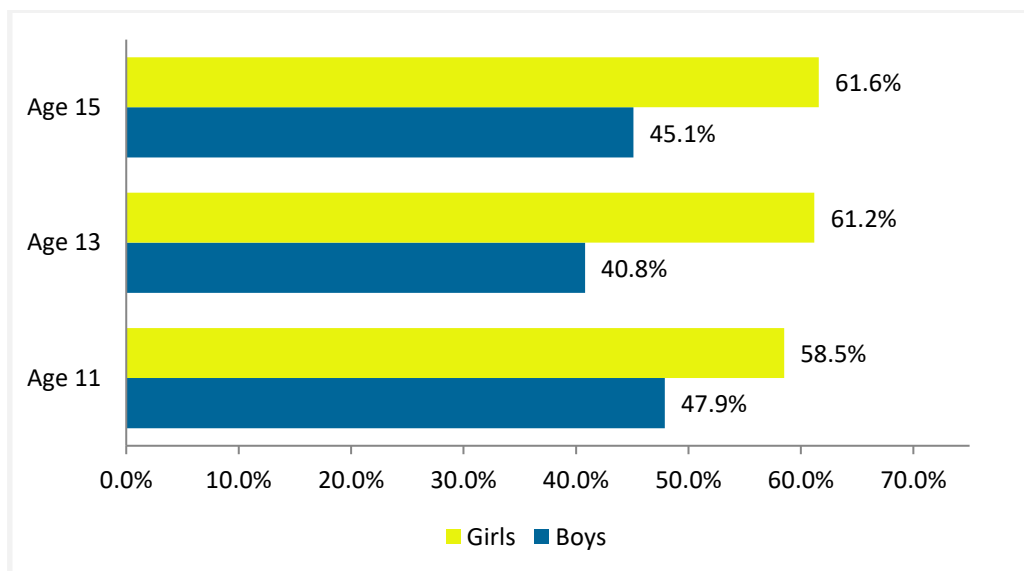
Table 7. Question: oral health

Topic	Questions	Comments
Oral health	How often do you brush your teeth?	Response options were: more than once a day; once a day; at least once a week but not daily; less often than once a week; never. The analysis took into account answers that indicated brushing at least twice a day.

Results

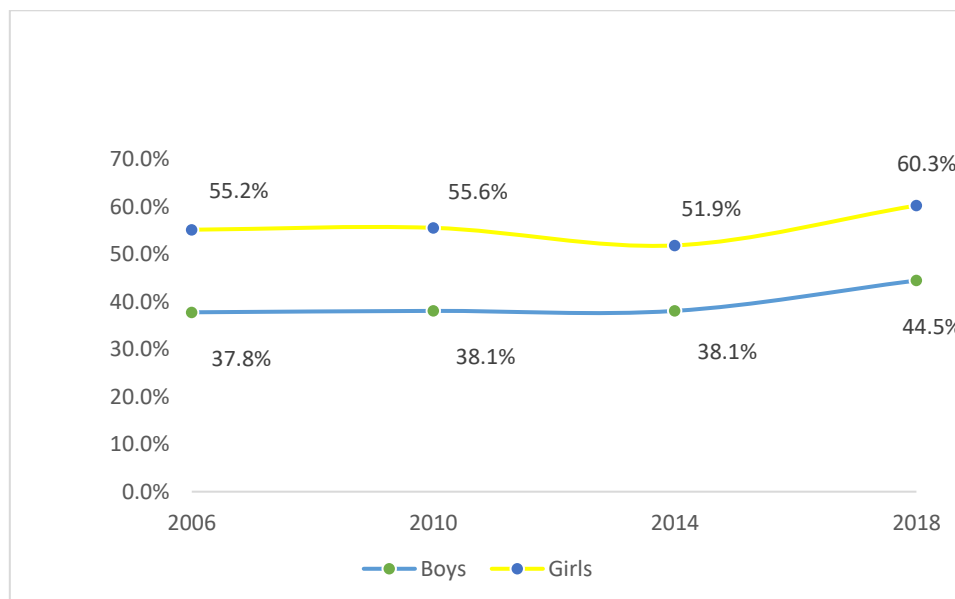
The percentage of adolescents who brushed their teeth at least twice a day is shown in Fig. 57. The distribution by age categories does not indicate the presence of significant differences, but there were significant differences between genders within each age category, with girls toothbrushing at least twice a day in higher proportions.

Fig. 57. Percentage of adolescents who brush their teeth at least twice a day



Between 2006 and 2018, there has been a steady increasing percentage of adolescents toothbrushing twice a day, for both genders (Fig. 58). The gender differences are preserved regardless of data collection point: girls clean their teeth twice a day in a larger proportion than boys.

Fig. 58. Percentage of adolescents who brush their teeth at least twice a day, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Final considerations

One in two pupils in Romania do not brush their teeth twice a day in accordance with dental hygiene recommendations. Given the connection between poor oral health and the risk for cardiovascular diseases, diabetes and metabolic diseases, it is necessary to develop measures to promote oral health as an integral part of promoting health in general. Increasing the frequency of dental brushing can be achieved through early childhood education by parents, but also through campaigns carried out in schools, the community or in the mass media. Regular and correct dental brushing after the main meals is an easily achievable and necessary condition for improving the oral and general health of children and adolescents.

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Risk behaviours



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Smoking, alcohol use and cannabis use

Introduction

Smoking among adolescents is a major global problem that brings negative consequences for health and development and risks continuation in the transition to adult life (WHO Regional Office for Europe, 2014). Those who start smoking at a younger age are more likely to become regular smokers (U.S. Department of Health and Human Services, 2014), especially if they are surrounded by smokers in their family and in their group of friends. WHO states that smoking is the main preventable cause of mortality and morbidity (WHO, 2013). While the highest rates of deaths and chronic conditions related to smoking are recorded among adults, the onset of this unhealthy behaviour begins during adolescence.

Alcohol use among young people has high prevalence in many European and North American countries, even though it represents a risk factor for morbidity and mortality. Alcohol is the most used risk substance during adolescence (Park & Breland, 2007). Research shows that early onset of drinking and/or episodes of drunkenness are associated with negative consequences such as accidental injuries (Hingson & Zha, 2009), risky sexual behaviour (Hingson et al., 2003), violence (Hingson et al., 2001), problematic interpersonal interactions (Dawson et al., 2008) and other physical, emotional or behavioural problems (Brown et al., 2008).

Until recently, cannabis use in adolescence was viewed as a transitory phenomenon (Chabrol, 2003), but use of cannabis, especially early onset and constant use, has been linked to cognitive disorders (Van Ours & Williams, 2009), deteriorating school performance and dropout (Bachman et al., 2008), externalization issues (risk-taking, aggression and delinquency) and internalization issues (depression and anxiety) (Griffith-Lendering et al., 2011).

Given the risks of these behaviours, it is very important to monitor them to enable preventive measures to be taken to combat/reduce the consumption of these substances among adolescents.

Measuring instruments

Smoking, alcohol use, drunkenness and use of cannabis were measured in a similar way (Table 8).

Table 8. Questions: smoking, alcohol use and cannabis use

Topic	Questions	Comments
Smoking, alcohol use and cannabis use	For how many days have you smoked cigarettes/drunk alcohol/been drunk/used cannabis: a. in your life b. in the last 30 days?	Response options ranged from never to 30 days or more. The responses stating at least once were taken into account.

Results

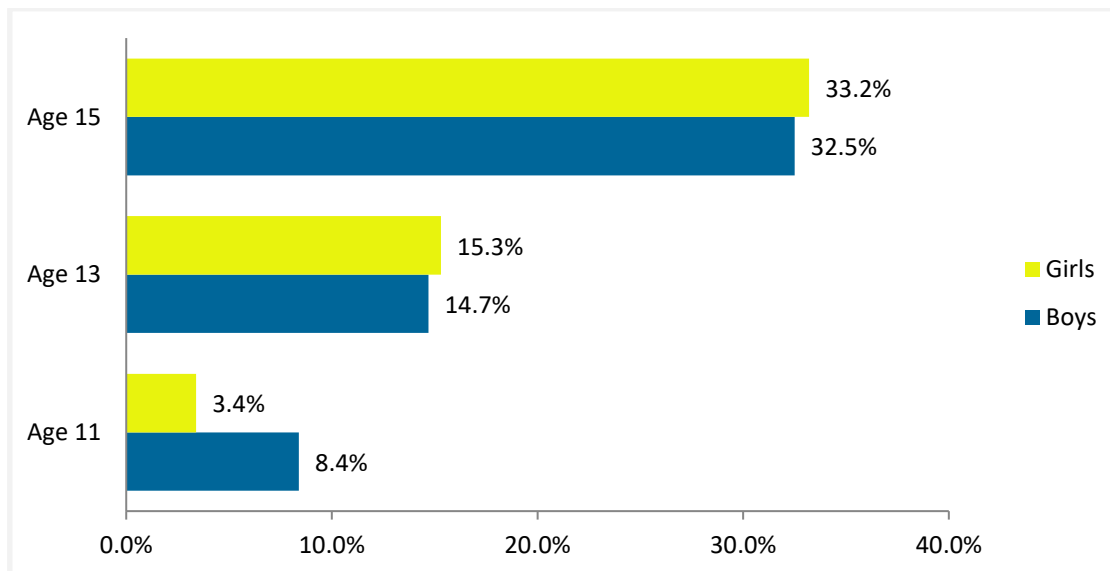
Tobacco use

Tobacco use throughout their life

More than one third of 15-year-old girls and boys had smoked tobacco at least once in their lives, twice more than was found among 13-year-olds (both genders) and almost four times more for boys and almost 10 times more for girls aged 11 (Fig. 59). The percentage of boys aged 11 who

had smoked was higher than that of girls, but the trend reversed at ages 13 and 15, with 0.6% more girls at age 13 and 0.7% more at age 15 reporting that they had smoked at least once in their lives.

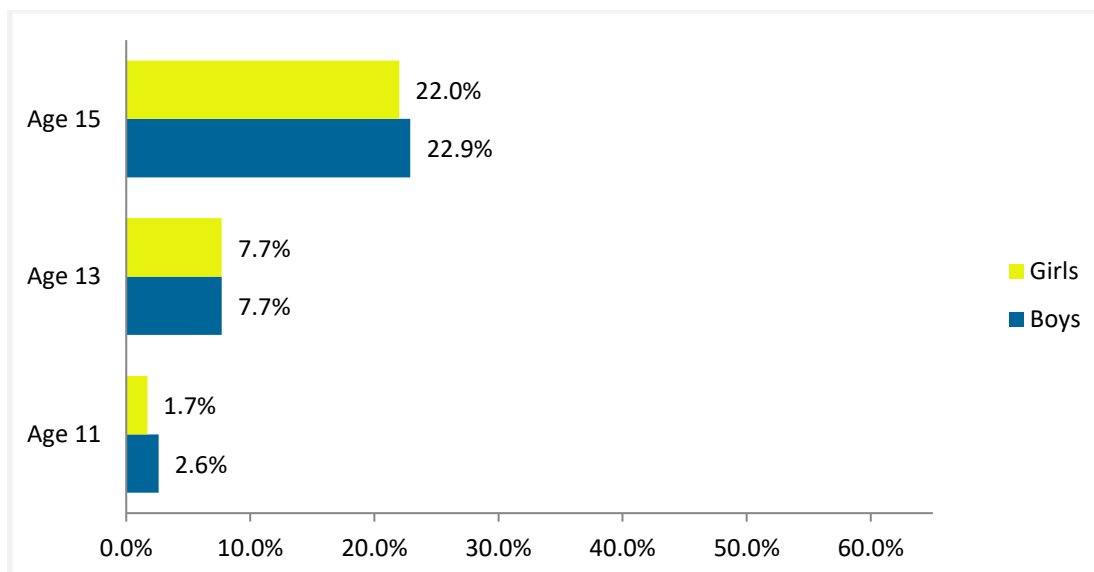
Fig. 59. Percentage of adolescents who have smoked at least once in their lives



Tobacco use in the last 30 days

Differences between boys and girls were minimal (between 0.9% and 1%), with a slightly higher percentage among boys at ages 11 and 15. At age 13, the percentages were equal (Fig. 60). There was a significant increasing trend in tobacco use from age 11 to 15: three times more 15-year-olds had smoked in the last month than 13-year-olds. The percentage of 15-year-olds of both genders who had smoked in the previous month was 10–12 times greater than that of 11-year-olds.

Fig. 60. Percentage of adolescents who have smoked at least once in the previous 30 days



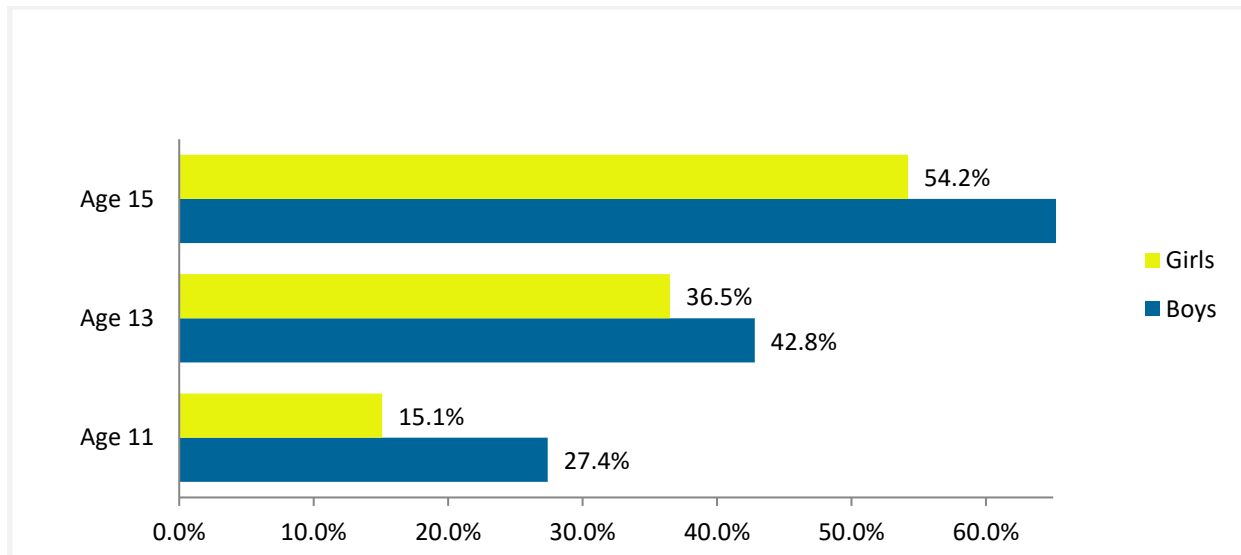
Alcohol use

Alcohol use throughout their life

The percentages of adolescents who had consumed alcohol at least once in their life increased by approximately 40% for both genders from age 11 to 15 (Fig. 61). Gender differences were more

pronounced than for tobacco use, with 6.3–13.3% more boys than girls having consumed alcohol at least once in their lives.

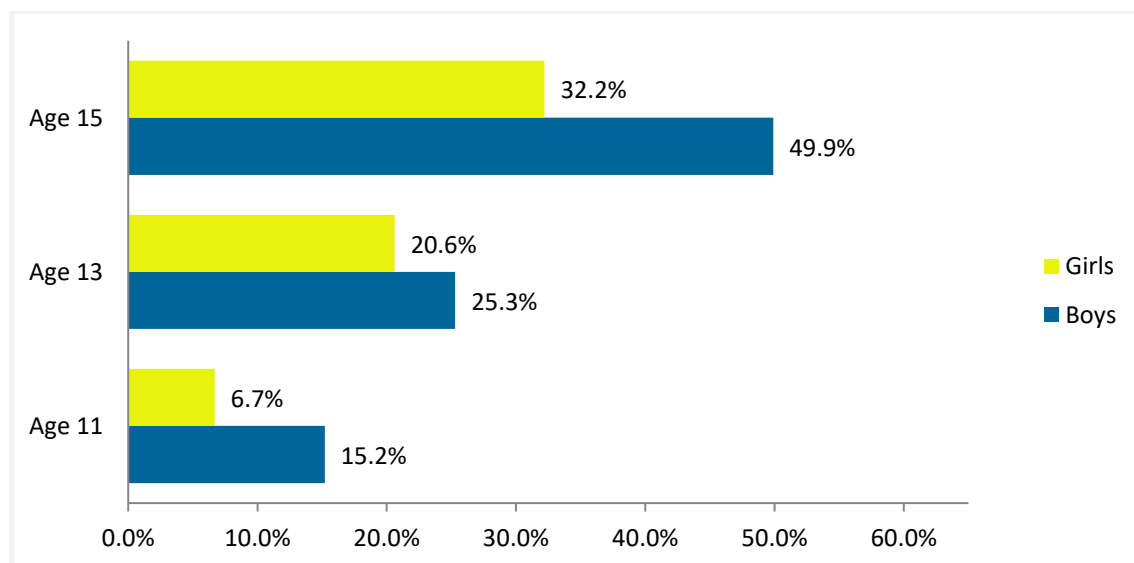
Fig. 61. Percentage of adolescents who have consumed alcohol at least once in their lives



Alcohol use in the last 30 days

Half of the boys and more than one third of the girls aged 15 had consumed alcohol at least once in the last month (Fig. 62). The percentage for 15-year-old boys was almost two times greater than for 13-year-olds and three times greater than for 11-year-olds. The same trend was observed for girls: from age 11 to 13, the percentage of girls who had consumed alcohol tripled, then increased again by another 10% from age 13 to 15. Boys reported alcohol consumption in the last month to a greater extent than girls across all age categories.

Fig. 62. Percentage of adolescents who have consumed alcohol at least once in the previous 30 days

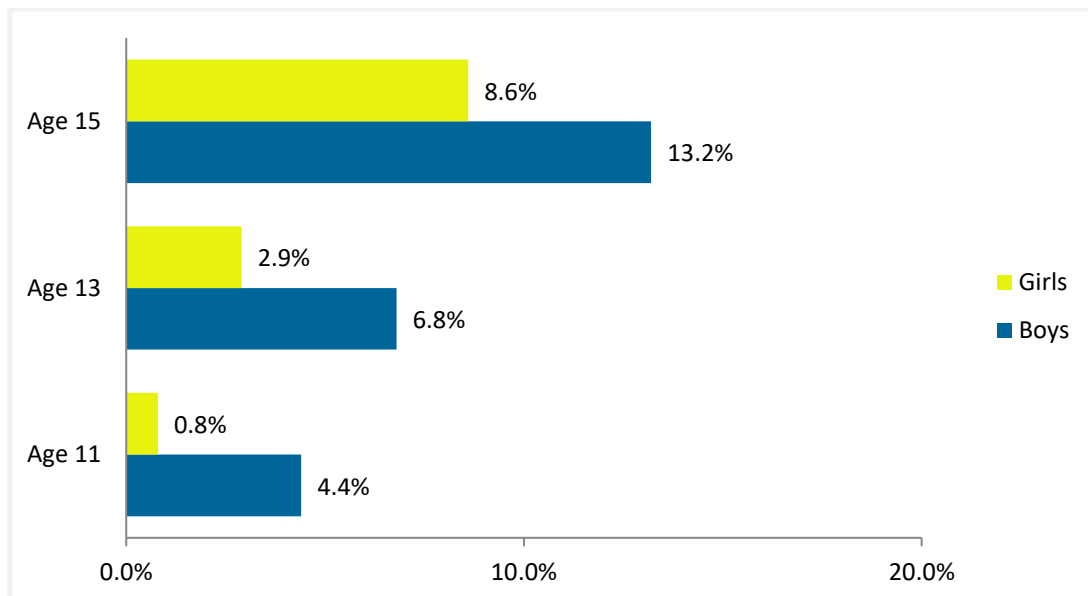


Episodes of drunkenness in the last 30 days

Fig. 63 shows that more than one in 10 boys aged 15 had been drunk at least once in the last 30 days. Gender trends were constant, with boys reporting drunkenness more frequently than girls across all age categories. The proportion of girls who reported drunkenness showed greater

accelerated growth with age compared to that of boys: the proportion of girls who had been drunk at least once was 3 to 10 times greater at age 15 than at ages 11 and 13. For boys, these percentages increased by 2–3 times at age 15 compared to ages 13 and 11.

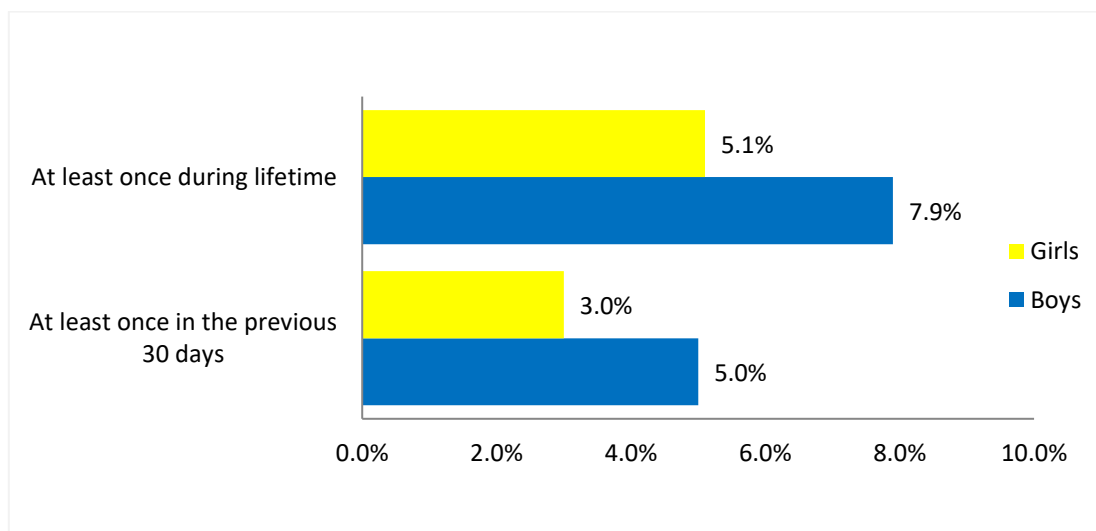
Fig. 63. Percentage of adolescents who have been drunk at least once in the previous 30 days



Cannabis use

Use of cannabis throughout life and in the last month was greater among 15-year-old boys than 15-year-old girls (Fig. 64). This difference, of 2.8% for lifetime use and 2% for the last month, reflected 40–50% higher cannabis use among boys than girls.

Fig. 64. Percentage of 15-year-olds who have used cannabis



Final considerations

Information on the use of substances (tobacco, alcohol and cannabis) is very important for shaping government policies and prevention programmes aimed at the adolescent population. Viewed as a whole, the use of substances is relatively common among pupils in Romania, although the frequency varies significantly depending on age and gender. The use of substances increases with age, so the highest prevalence in both genders is among 15-year-olds. There was a major gender difference for most of the behavioural indicators measured in the survey, with boys

reporting more frequent involvement than girls; these traditional gender differences are beginning to diminish in some other European countries. The prevalence of cannabis use among Romania's pupils may not seem very high, but it is alarming enough, given that 5% of the boys used cannabis at least once in the previous month.

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Sexual behaviour

Introduction

Healthy sexual development is an essential component of adolescents' social, physical and psychological growth. It is not only about avoiding unwanted pregnancies and sexually transmitted infections (STIs), but is also about integrating physical, emotional and social dimensions and values into a person's sexuality.

The concept of healthy sexual development refers to knowledge accumulation and the formation of attitudes and positive values regarding the individual's sexuality and that of others (Strasburger & Greydannus, 2000). Correct information and balanced attitudes towards sexuality allow age-appropriate decisions to be made. More than 1000 young women in Romania aged between 10 and 14 years became mothers in 2015, and births for the age category 10–19 years represent 13.9% of all births in Romania. According to Eurostat data for 2017, Romania is in first place in Europe in this regard, with almost 30 000 adolescent mothers (Eurostat, 2019).

Statistics on unplanned and undesired pregnancies that ended in abortion and STI incidence among adolescents are approximate, but they signal real problems that cannot be ignored given their major educational, health and socioeconomic consequences. Despite this, sexual education, as well as health education, remain absent in most schools in Romania, regardless of initiatives and pressure from specialists for their introduction as subjects over almost three decades. Joint actions at different levels – family, school, community and society – are imperative to support effective programmes to promote healthy sexual knowledge, attitudes and behaviours and reduce risk behaviours among adolescents (WHO Regional Office for Europe & Federal Centre for Health Education, 2010).

Measuring instruments

Sexual behaviour was assessed only among 15-year-olds through three items (Table 9).

Table 9. Questions: sexual behaviour

Topic	Questions	Comments
Sexual behaviour	Have you ever had sexual intercourse?	Response options were 1 – yes and 2 – no. Affirmative responses were taken into account.
	How old were you when you had your first sexual relationship?	Response options ranged from 1 (11 years old or less) to 6 (16 years old). The report included the percentage of adolescents who started their sexual life at age 13 or before.

Topic	Questions	Comments
	The last time you had sexual intercourse did you or your partner use: 1. condom 2. contraceptive pill?	Response options were 1 – yes, 2 – no and 3 – I don't know. The percentage of those who gave affirmative response to one of the contraceptive methods was reported.

Results

Sexual intercourse

Almost one third of 15-year-old boys stated that they had had sexual intercourse, with the percentage of 15-year-old girls stating the same thing more than three times smaller (Fig. 65).

Fig. 65. Percentage of adolescents who have had sexual intercourse

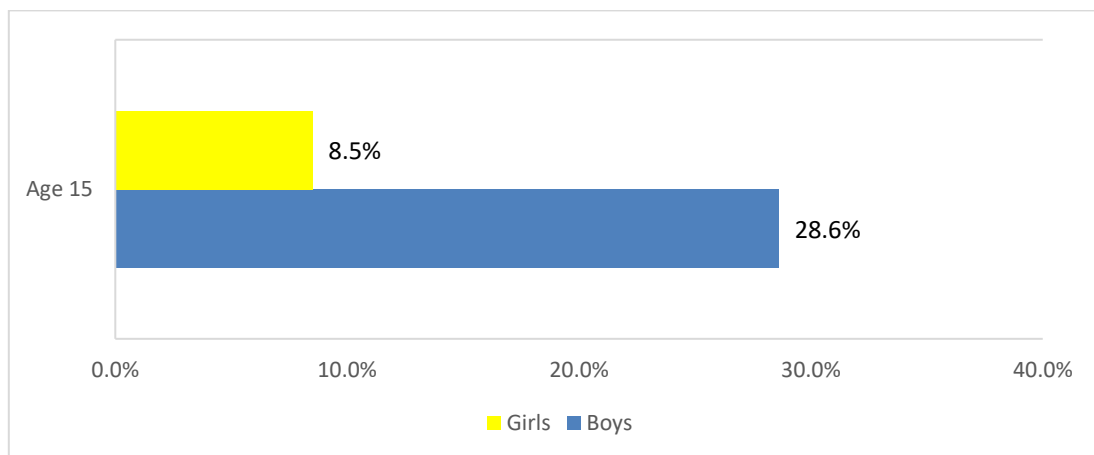
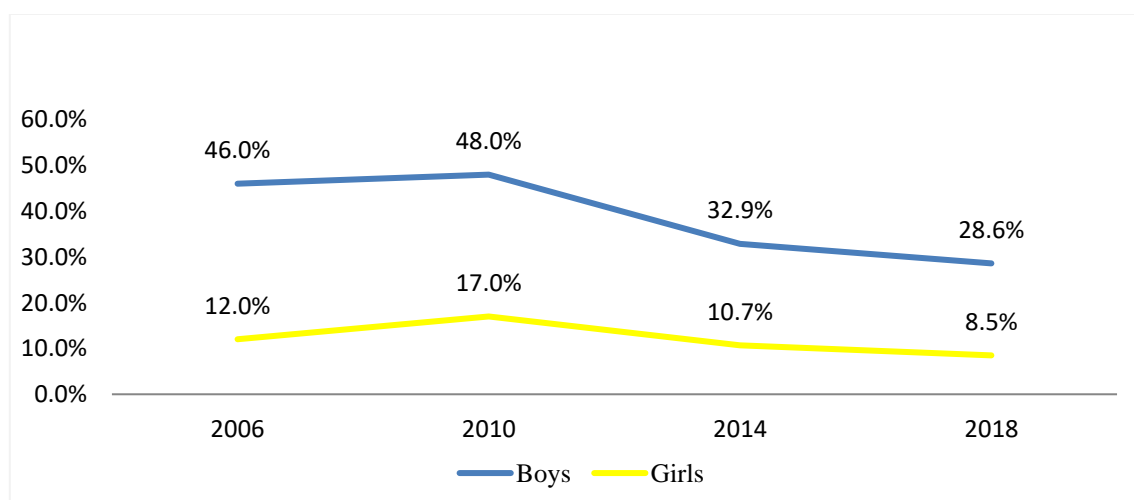


Fig. 66 shows that after an initial increase between 2006 and 2010, the number of adolescent boys and girls who have had sexual intercourse experienced a steep decrease from 2010 to 2014 (over 15% in boys and over 6% in girls), and then a slight decrease of about 4% among boys and 2% in girls in 2018.

Fig. 66. Percentage of adolescents who have had sexual intercourse, 2004–2016



Source: HBSC research 2006, 2010, 2014, 2018.

Age of first sexual intercourse

Of the boys who reported having started their sexual life (28.6%), one third stated that it began between ages 11 and 13, with two thirds between 14 and 16. Of sexually active girls at age 15 (8.5%), 14% began their sexual life between ages 11 and 13.

Use of contraceptive methods at last sexual intercourse

More than six in 10 15-year-olds claimed to have used condoms at last sexual intercourse and almost one in 10 of both genders used contraceptive pills. The percentages were higher among boys for both forms of contraception, with greater gender differences being noticed for using condoms (Fig. 67).

Fig. 67. Percentage of 15-year-olds who state that they or their partner used contraceptive methods at last sexual intercourse

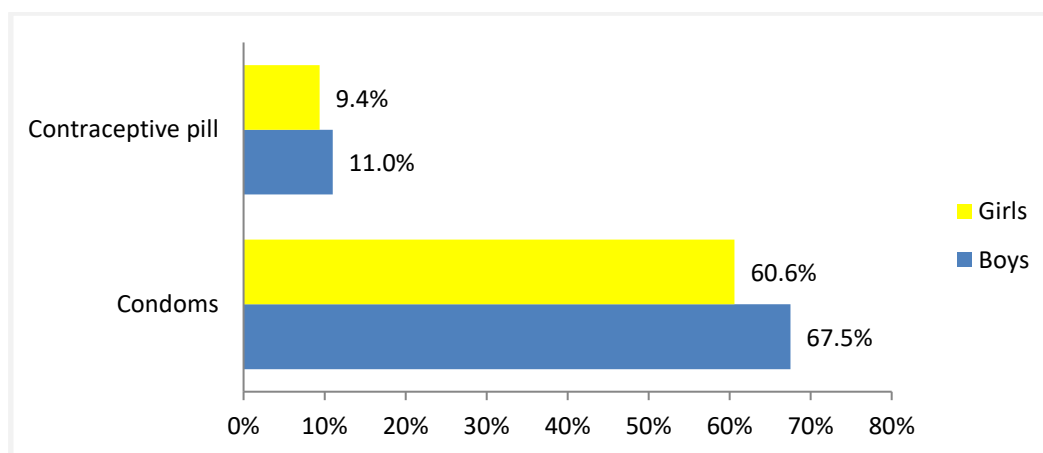
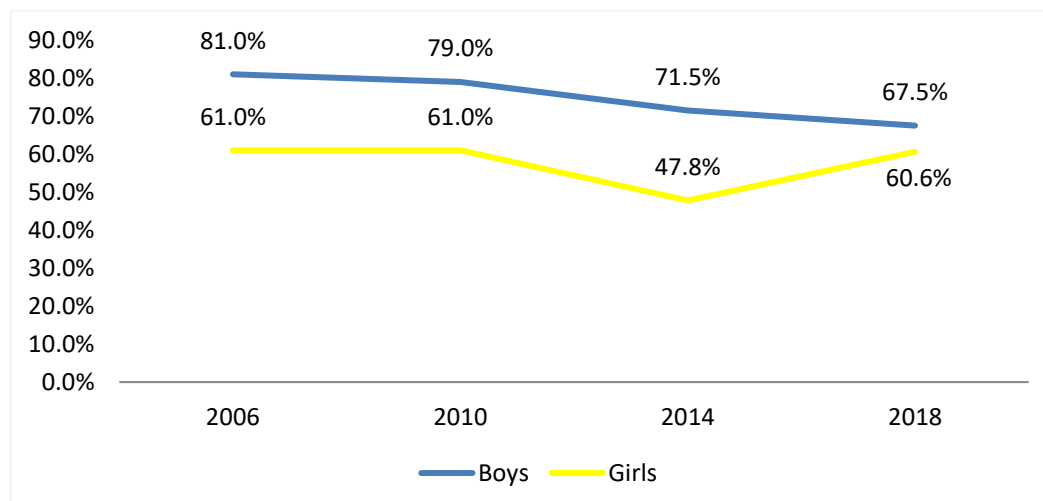


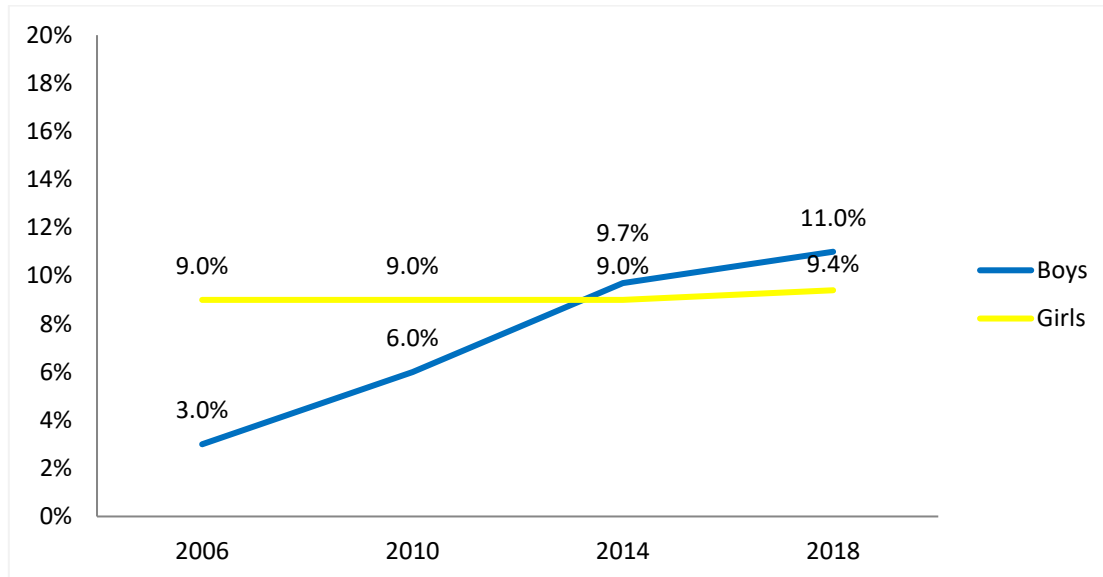
Fig. 68 shows that condom use in boys decreased by more than 13% between 2006 and 2018. The same decreasing trend is observed among girls, but only until 2014, after which the percentage who used (or their partner used) condoms increased by approximately the same value (13%) until 2018. Rates of condom use were therefore similar for girls in 2010 and 2018, while for boys, the decreasing trend remained constant. The use of oral contraception remained relatively constant for girls between 2006 and 2018, while in boys, an increase can be observed for each four-year interval (Fig. 69).

Fig. 68. Percentage of 15-year-olds who state that they or their partner used contraceptive methods during last sexual intercourse, 2004–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Fig. 69. Percentage of adolescents who used oral contraceptives during their last sexual intercourse, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Final considerations

The 2018 data show that the percentage of 15-year-old girls and boys who have started their sexual life is decreasing compared to previous data-collection points. Worryingly, however, the percentage of adolescents who used condoms at last sexual intercourse has decreased compared to previous years for boys and is at the same level as in 2006 for girls. A slight increase in use of oral contraception has been seen, with a more noticeable increase for girls than boys.

Another worrying finding is the high percentage of adolescents, especially boys, who report having had sexual experiences at an early age, before or around the age of 13. The results indicate the need for education interventions regarding contraception. Also, education around the risks associated with early sexual initiation is needed, as this behaviour is also related to early onset of other unhealthy behaviours (smoking, alcohol use, cannabis use and unprotected sexual behaviour) and may have negative emotional and physical consequences (including unwanted pregnancies and abortions) (Poulin & Graham, 2001; Cooper, 2002; Eaton et al., 2006; Parkes et al., 2007). Among the factors proven to be associated with the sexual health of adolescents are self-esteem, body image, perception of control, perception of vulnerability, presence of other risk behaviours, attitudes towards parents, teachers and school, and school involvement and performance. Studies have shown that increased self-esteem helps adolescents to cope with peer pressure or pressure coming from the partner in relation to early sexual initiation and to negotiate the use of contraception to avoid unwanted pregnancies and STIs (Cheesbrough et al., 1999).

One of the characteristics of adolescence is perceived invulnerability. Young people often consider that while everyone else is exposed to the risk of unwanted pregnancies, contracting STIs or the occurrence of emotional problems as a result of early sexual initiation, they, personally, are in no danger. This belief may negatively influence the use of contraception or the age at which first sexual intercourse occurs.

Exploring risky sexual behaviours and the attitudes and beliefs associated with them is informative for effective sexual education programmes among young people. Adolescents' easy access to questionable information (through websites, movies and magazines) and reduced parental control (due, for example, to lack of time on the parents' part and lack of knowledge on ways to communicate about topics related to sexuality) highlight the need to develop new strategies for healthy sexual education in schools. The HBSC study results emphasize the need to intervene to prevent early sexual initiation and promote the use of contraceptive methods among young people.

Sexual health education programmes should align with WHO principles (WHO, 2010) and ensure young people's rights regarding the development of healthy sexuality are respected. WHO recommends the introduction of standards for comprehensive sexual education. The themes proposed in the new paradigm therefore do not focus only on the prevention of unwanted pregnancies or STIs, but also seek to develop positive sexuality (through the formation of gender identity and the development of positive body image, assertive communication skills in romantic relationships, self-esteem, responsible decisions and self-efficacy) appropriate for each different development stage.

The WHO document contains recommendations on what should be known and understood by children of different ages, what attitudes and values should be transmitted and what skills adolescents should develop to cope with risk situations. For example, information that should be communicated for adolescents aged 12–15 should concern age-specific changes in their body and developing a positive attitude towards change, contraception and being positive and responsible towards it, developing skills to negotiate contraception use, developing emotional regulation skills, and developing critical thinking and awareness of one's rights related to their own sexuality. Other topics that must be addressed are the development of self-efficacy concerning the use of contraception or to resist social pressure towards early sexual initiation. Sexual education therefore does not only mean avoiding unwanted pregnancies or STIs, but is also about the healthy development of adolescents' cognitive and emotional abilities, and values, behaviours, interpersonal and social aspects of sexuality.

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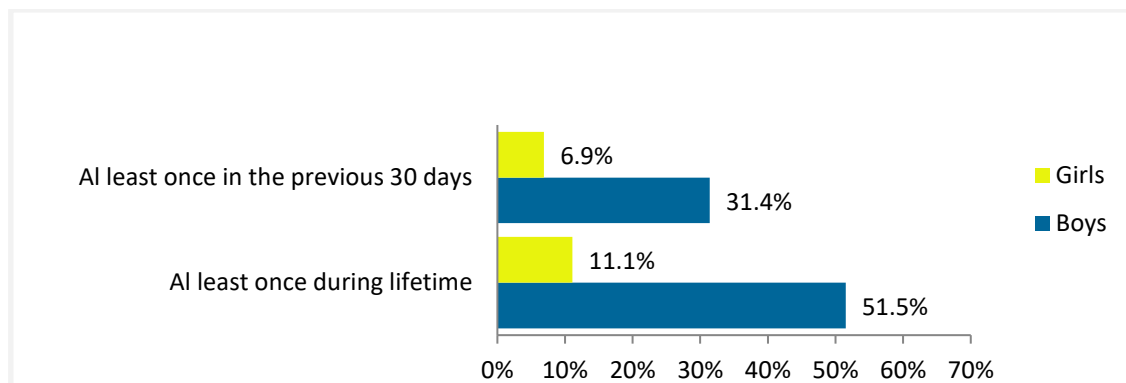
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Betting and gambling

Repeated involvement in gambling is a potentially harmful behaviour. More and more young people are addicted to such practice. For the first time, the HBSC study included a question about the frequency of betting money or gambling. The results are presented in Fig. 70. One in two boys and almost one in 10 girls have bet money at least once in their lifetime in the form of gambling and sports betting. Three in 10 boys were involved in these types of activities at least once in the last year, while the percentage of girls who had bet money in the last year was almost five times smaller.

Fig. 70. Percentage of 15-year-olds involved in betting or gambling



Violent behaviour: bullying and fighting

Introduction

Violence is a major social problem globally due to its high prevalence and negative consequences on the physical and mental health of those involved. Violence exhibited by children and adolescents is measured in the HBSC survey by items covering involvement in fights and engaging in harassment/intimidation (bullying), including specific items that assess the status of victim and the bully/harasser (Currie et al., 2012). Both traditional bullying and cyberbullying have been measured, the latter being carried out mainly through mobile technology and social media channels.

Measuring instruments

To measure the phenomenon of bullying as accurately as possible, the questionnaire provided the following definition for pupils before they responded to the specific questions:

We say that a pupil was bullied when another person/group of persons tell or do to him/her things that are mean/unpleasant. It is also bullying when the person is being teased repeatedly in a way that he or she does not like or is deliberately excluded from activities. It is not bullying when two persons with similar strength (force) argue or fight.

The questions concerning the bullying behaviours (bullying others or being bullied) and involvement in fights are shown in Table 10.

Table 10. Questions: violent behaviour

Topic	Questions	Comments
Bullying	<p>How often have you been among those who have bullied other people at school in the last two months?</p> <p>How often have you been bullied at school in the last two months?</p> <p>The frequency of cyberbullying (through sending SMS, malicious messages and posting or sending unfavourable pictures) over the past two months was also measured, with the versions being “Have you cyberbullied others?” and “Have you been cyberbullied?”</p>	<p>The data analysis took into account responses indicating a frequency of bullying behaviour greater than 2–3 times in the last two months.</p>
Fighting	<p>In the last 12 months, how many times have you been involved in a fight?</p>	<p>The data analysis took into account responses indicating a frequency of involvement in fights of at least three times in the last 12 months</p>

Results

Involvement in bullying and cyberbullying as the bully

On average, 14.6% of 13-year-olds of both genders stated that they engaged in bullying, while 8.1% of adolescents of the same age had engaged in cyberbullying behaviours at least 2–3 times in the past two months. Boys engaged more frequently as bullies in both face-to-face and cyberbullying. Gender differences were more pronounced at ages 11 and 13, while at age 15 they tended to attenuate for both types of behaviours (Fig. 71).

Fig. 72 shows that the percentage of those who engaged as bullies in face-to-face bullying has been decreasing steadily since 2010, when a peak was recorded. The increasing trends between 2006 and 2010, and the rapid decreasing trends between 2010 and 2018, are constant for both genders: a decrease of about 9% between 2010 and 2014 for both girls and boys and a decrease of 7% for boys and 2.9% for girls between 2014 and 2018 are seen.

Fig. 71. Percentage of adolescents who have bullied others at least 2–3 times in the previous two months

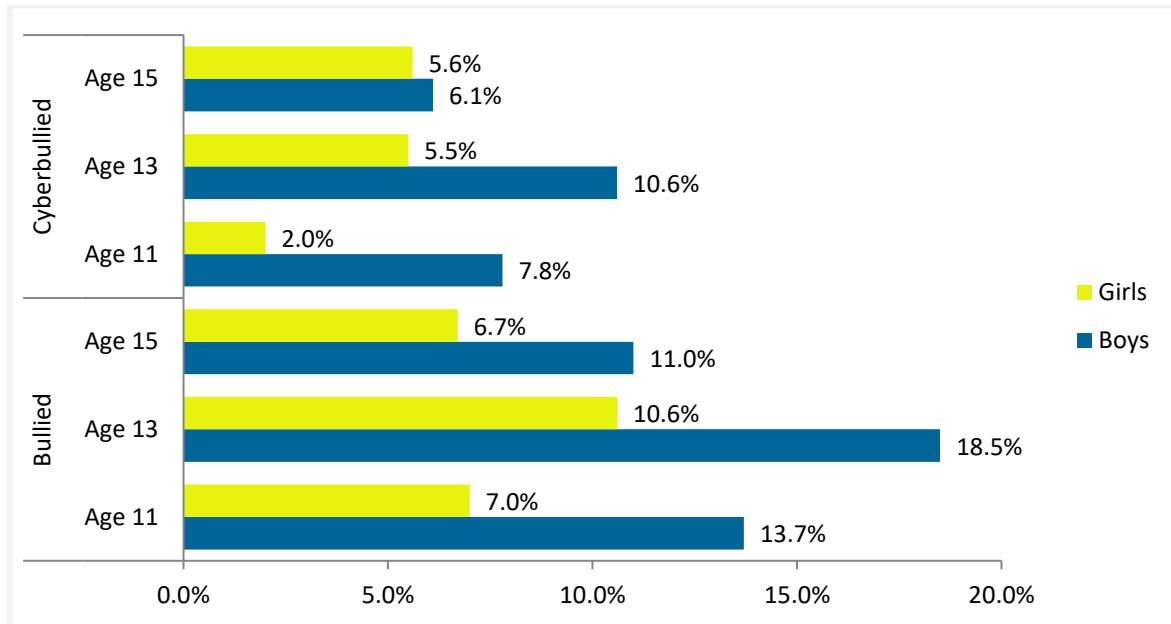
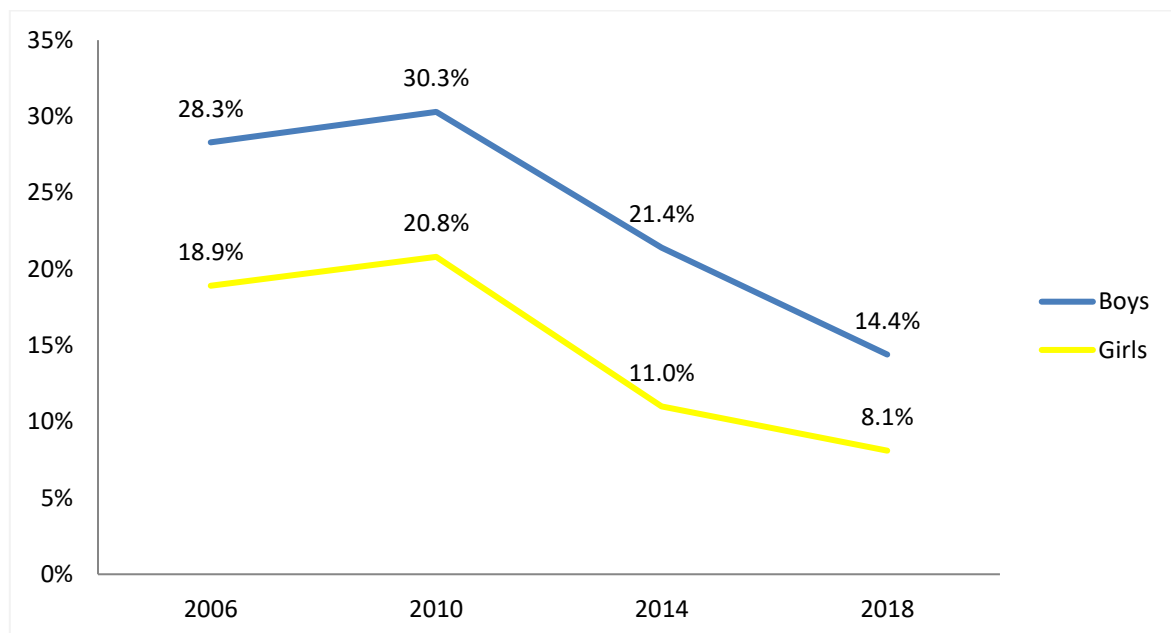


Fig. 72. Percentage of adolescents who have bullied others at least 2–3 times in the previous two months, 2006–2018



Source: HBSC research 2006, 2010, 2014, 2018.

Involvement in bullying and cyberbullying as the victim

Higher percentages of victimization were recorded at ages 11 and 13 in both genders, similar to the data on perpetrators involved in these behaviours (Fig. 73). More girls were victims of face-to-face bullying at ages 13 and 15 than boys, while more boys than girls were victims of cyberbullying across all age categories. Fewer boys were victims of both forms of bullying at ages 13 and 15 compared to age 11. For girls, there was no clear decreasing trend; on the contrary, the number of girl victims at age 13 increased, only to decrease later (for face-to-face bullying) or remain constant (cyberbullying).

Fig. 73. Percentage of adolescents who have been bullied at least 2–3 times in the previous two months

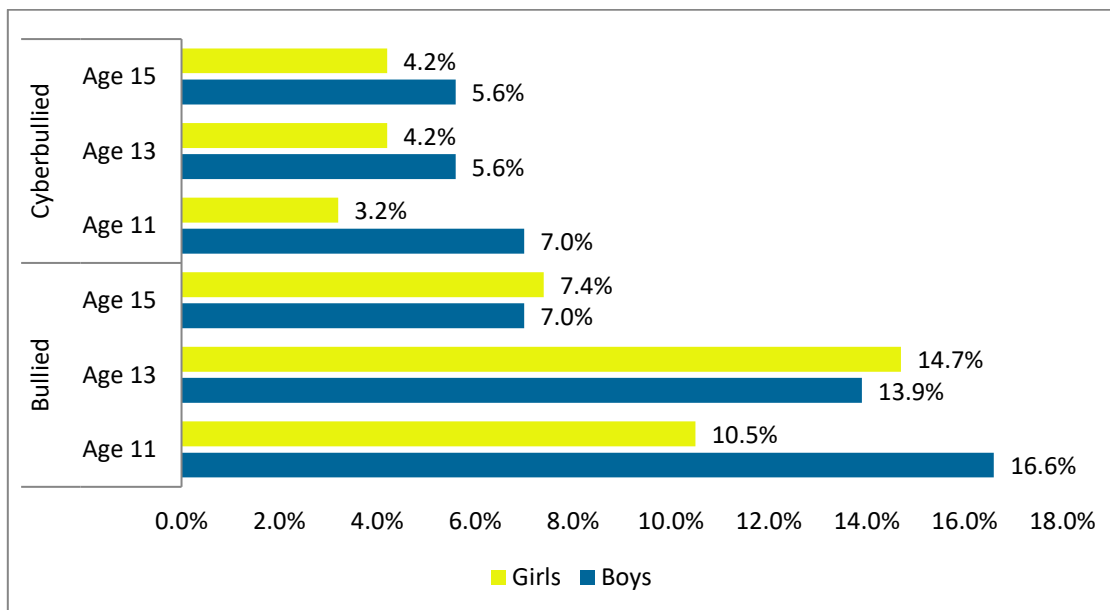
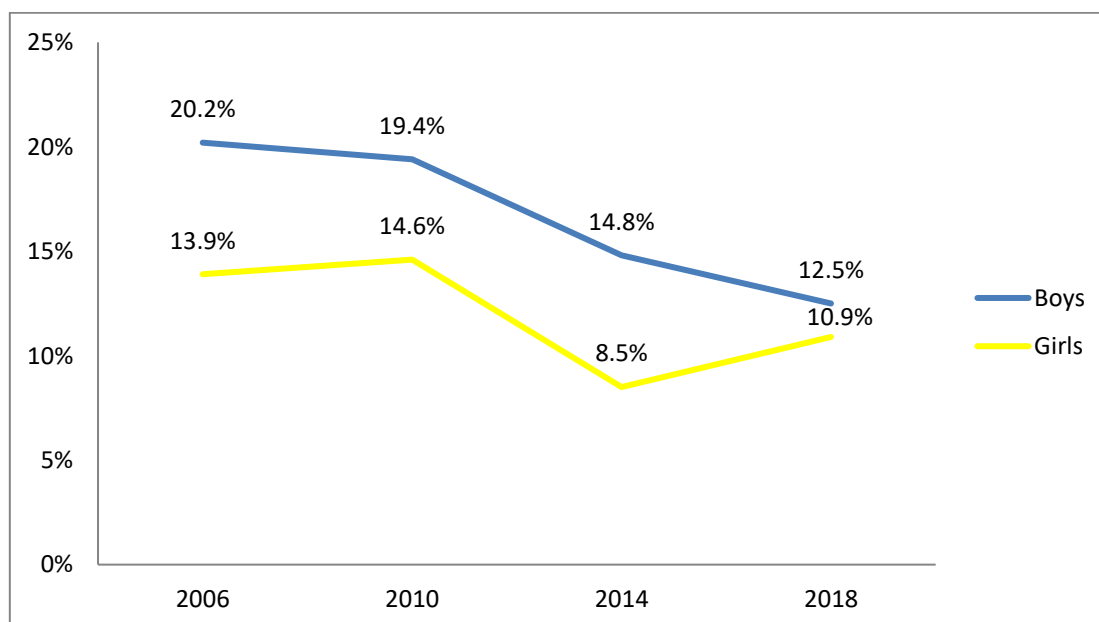


Fig. 74 shows that for boys, the percentage of bullying victims steadily decreased from 2006 to 2018. For girls, there was a decreasing trend of the percentage who were victims of bullying between 2006 and 2014, only to increase in 2018. There is a clear gender difference, with more boys stating that they were victims of bullying in every school year. The percentage gap between boys and girls diminished over time, from 6.3% in 2006 to 1.6% in 2018.

Fig. 74. Percentage of adolescents who have been bullied at least 2–3 times in the previous two months

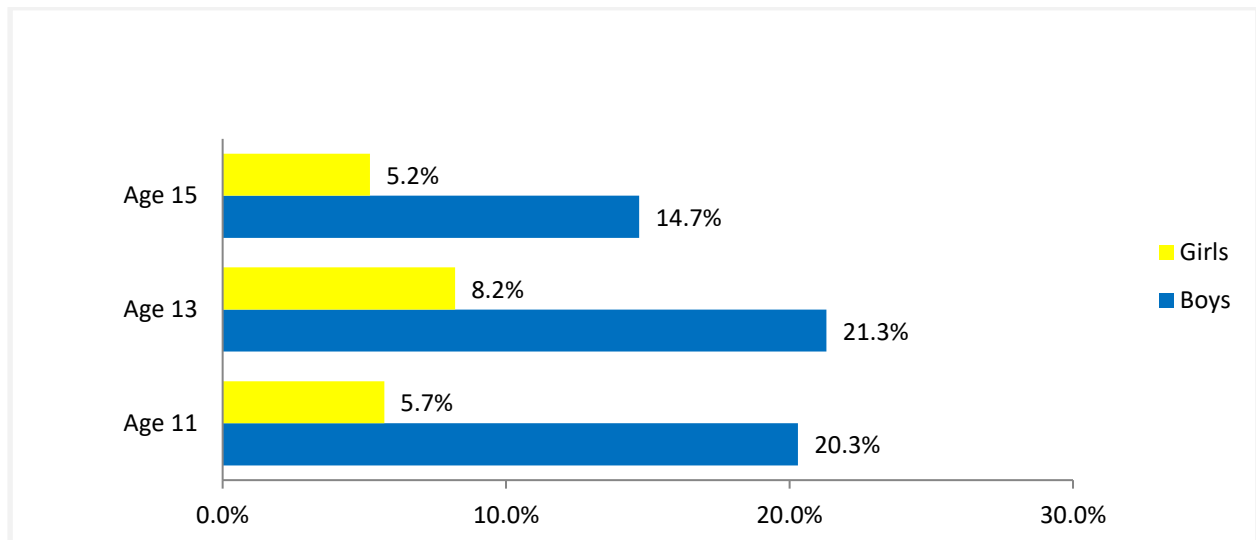


Source: HBSC research 2006, 2010, 2014, 2018.

Involvement in fights

One in five boys aged 11 and 13 had been involved in at least three fights in the previous year. The percentages among boys decrease at age 15 by about 5%. For girls, the percentages were much smaller for all age groups and, similar to boys, they decreased from age 13 to 15 (Fig. 75).

Fig. 75. Percentage of adolescents who had been involved in fights at least three times in the previous 12 months



Final considerations

The involvement of pupils in violent behaviours tends to have high prevalence in the Romanian school context. Overall, there is a significant gender difference for the three measured behaviours (involvement in fights, bullying and victimization), with boys reporting more frequent involvement than girls. Compared to 2006, 2010 and 2014, there was a reduction in the rates of bullying involvement in 2018.

Of particular interest are the rates of cyberbullying. The development of technology in the last decades and the significant increase in the use of social media makes it imperative to oversee cyberbullying behaviours that may occur online or be carried out through other technological means. The number of victims of cyberbullying tends to be much lower than that of victims of traditional bullying. Although bullying and cyberbullying have different prevalence, the age trajectories are similar: overall a higher proportion of adolescents are victims or perpetrators in real or online environments at 11 years than at 13 or 15 years. These results signal the need to implement early programmes to prevent violence in schools that would also target cyberbullying.

Reference

Currie C, Inchley J, Molcho M, Lenzi M, Veselska Z, Wild F, editors (2014). Health Behaviour in School-aged Children (HBSC) study protocol: background, methodology and mandatory items for the 2013/14 survey. St Andrews: Child and Adolescent Health Research Unit, University of St Andrews (<http://www.hbsc.org>, accessed 7 May 2020).

Diet and weight control

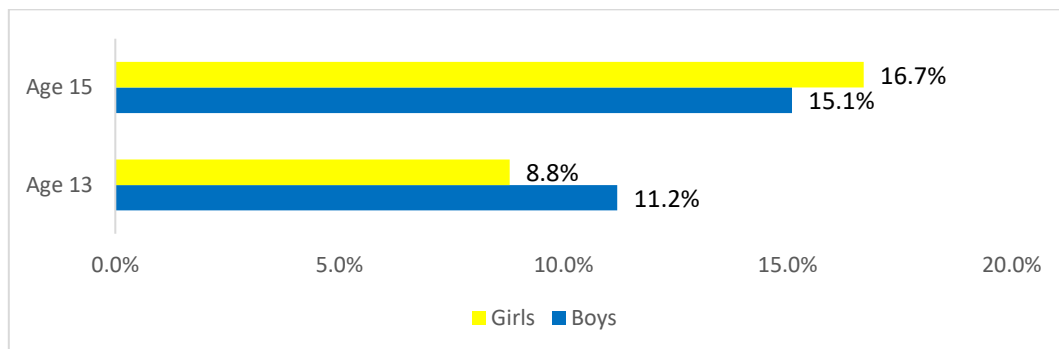
Results

Weight-reduction diets in the last year

Fig. 76 shows that at age 15, more than one in 10 adolescents, regardless of gender, had committed at least one month to a diet with the intention of losing weight in the previous year. While the percentage of 15-year-old girls who followed a diet was higher than for boys, the percentage difference was small (1.6%). The percentages were reversed at age 13, with more

than one in 10 boys following weight-reduction diets compared to fewer than one in 10 girls who reported the same behaviour.

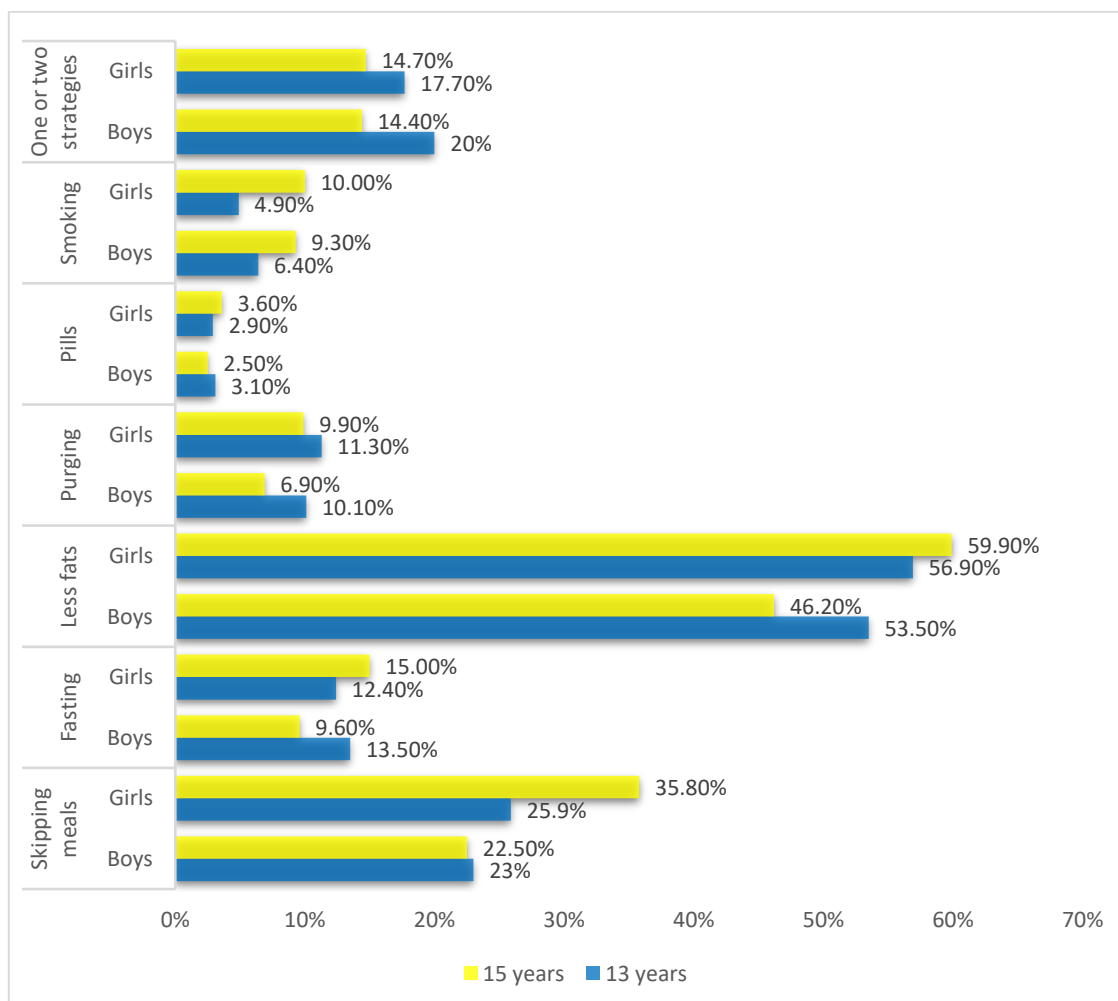
Fig. 76. Percentage of adolescents who had been on a weight-reduction diet in the previous 12 months (for more than one month)



Unhealthy weight-control strategies

Fig. 77 shows that the most popular strategy for weight control among 13- and 15-year-olds of both genders (almost half of those who were on a diet) was reduction of fat intake, followed by skipping meals, which was used on average by one in four adolescents in both age categories. About one in 10 boys and girls of 15 who were on a diet had smoked to lose weight, with one in 10 13-year-olds, regardless of gender, having smoked for the same purpose.

Fig. 77. Percentage of adolescents who use unhealthy strategies for weight control

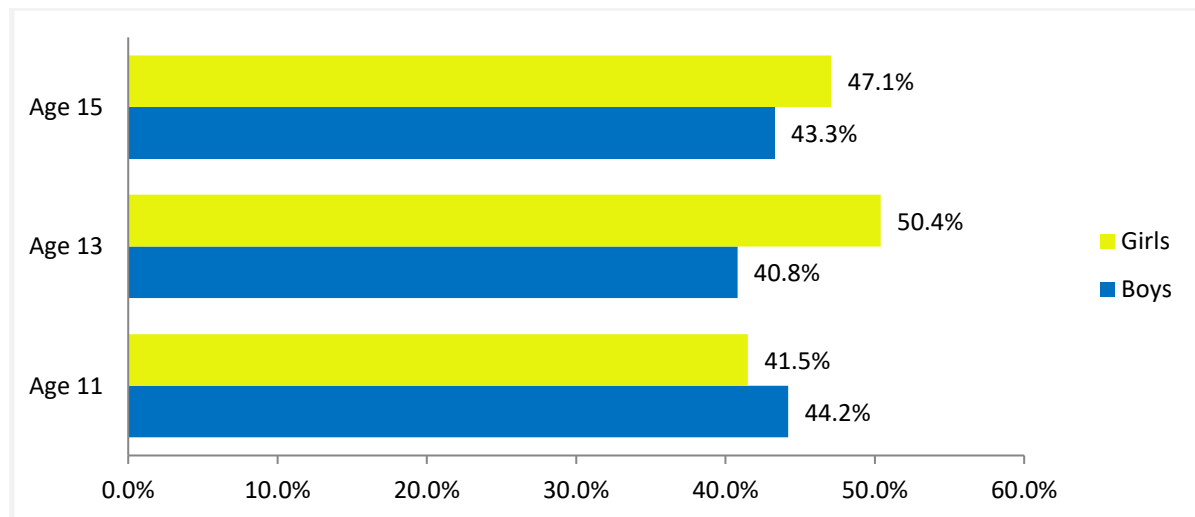


One in five 13-year-old boys used one or two unhealthy strategies, while the percentage among 13-year-old girls was slightly smaller. Although there was no obvious age trend in using any of these strategies, a gender trend was observed. Girls generally resorted to unhealthy weight control strategies in higher proportions than boys, with a few exceptions: fasting (13-year-olds), use of weight-reduction pills (13-year-olds) and smoking (13-year-olds), which were used by boys in greater proportions than girls. However, gender-based percentage differences were generally small.

Food and beverage consumption in front of screens

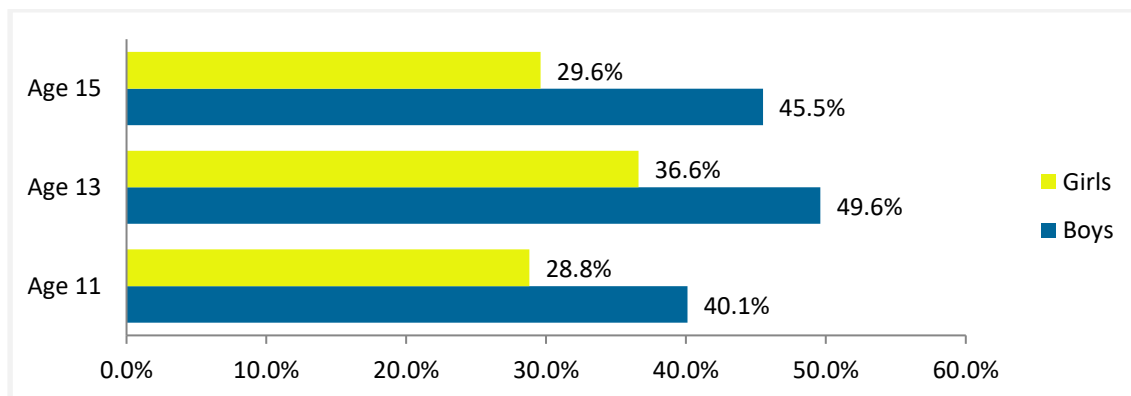
Eating and drinking in front of the TV is a widespread habit among adolescents of both genders: between 40% and 50% of them, regardless of age, reported that they usually eat/drink in front of the TV at least three times per week. At 11, boys report food and beverage consumption to a higher proportion than girls, while the trend reverses for 13- and 15-year-olds (Fig. 78).

Fig. 78. Food and beverage consumption in front of the TV (more than 3–4 times per week)

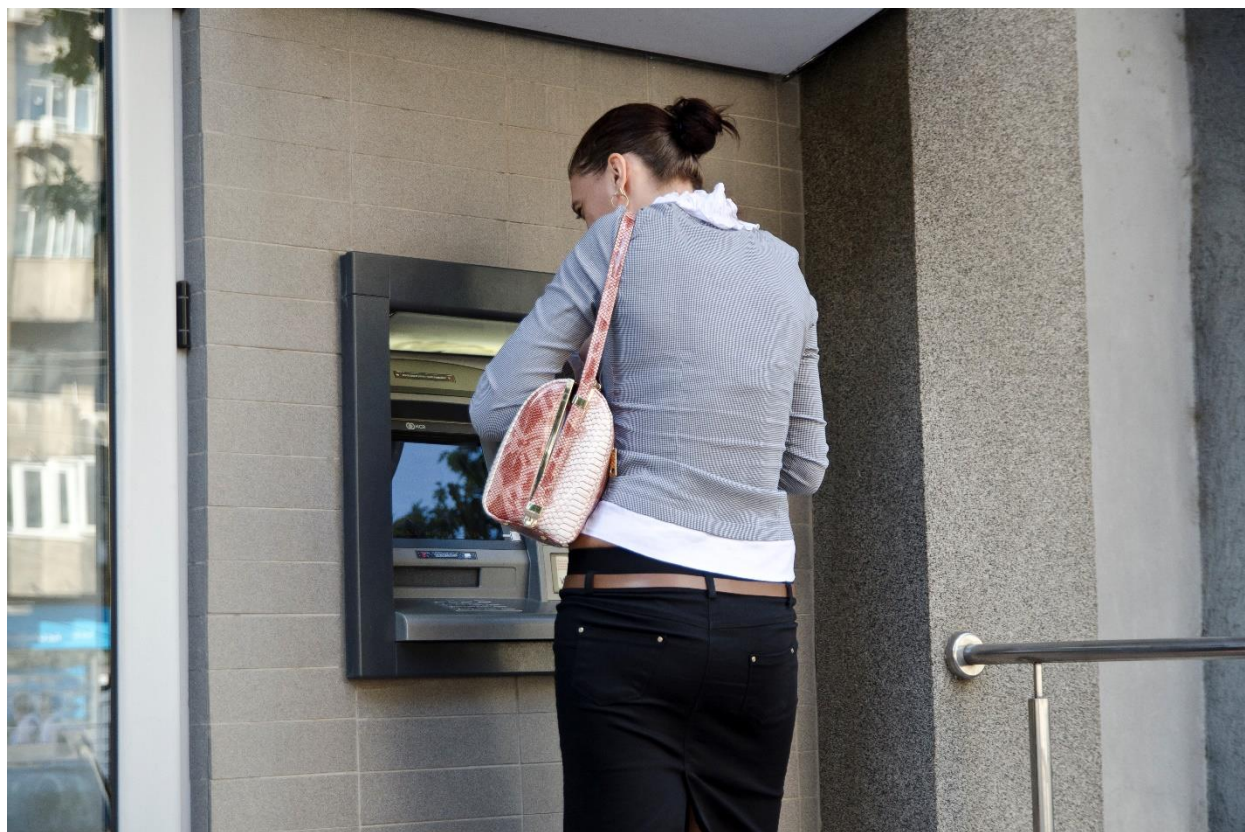


When asked how often they consumed food while working/playing on the computer, trends for boys are similar with those for eating/drinking in front of the TV: between 40% and 50% said they did so for at least three days per week. The proportion of girls who ate/drank in front of the computer was lower for all age categories, with percentage differences between boys and within the same age category being between 11.3% and 15.9% (Fig. 79).

Fig. 79. Food and beverage consumption in front of other screens (while working/playing) (more than 3–4 days per week)



Relationships between socioeconomic status and adolescent health



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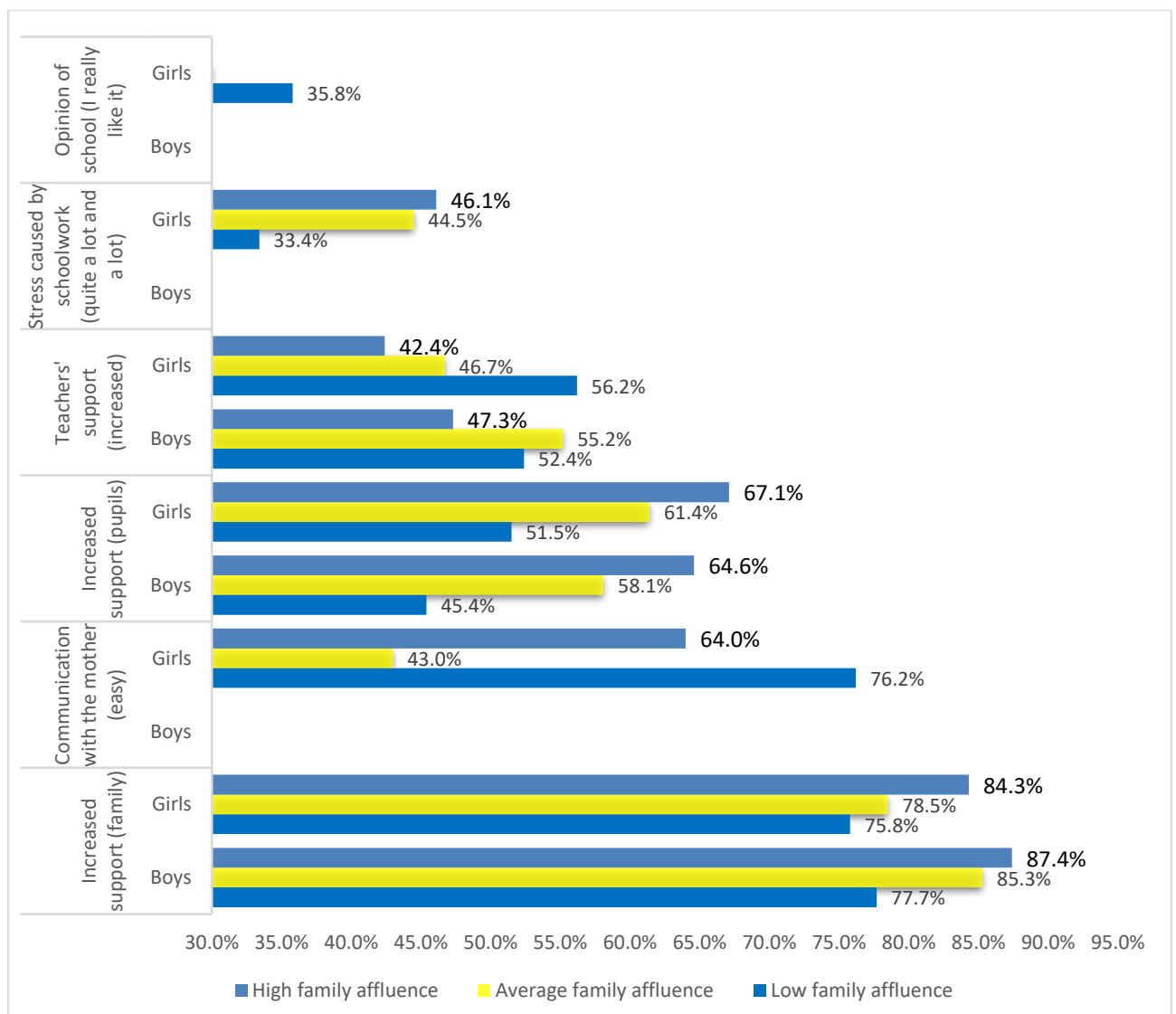
Introduction

Socioeconomic status/family affluence plays an important role in understanding the disparities in health and well-being but also the role of social relations and support in maintaining health, and the factors that contribute to risk and health behaviours. The HBSC 2014 international report (Currie et al., 2014) showed that in most countries, adolescents with high family affluence enjoyed better communication with parents and their friends, and better health and school outcomes. This section presents and discusses the associations between family affluence with different health dimensions in the Romanian HBSC sample. Only the health/risk dimensions and health behaviours that were significantly associated with family affluence are presented. Where the association was significant only for one gender, the graphic representation displays only the respective association, omitting scores for the other gender. All associations discussed in this section were significant at a threshold of $p < .05$.

Social context

There was a significant association with family affluence for six of all the dimensions investigated in relation to social context (Fig. 80).

Fig. 80. Social context and family affluence



Generally, girls and boys with high family affluence perceived increased support from their family compared to those with average or low family affluence, for whom the percentages were smaller.

Regarding the ease of communication with mother, the trend was reversed for girls, with those with lower family affluence seeming to perceive more support from their mother compared to those with average or high family affluence. In both genders, the perceived support from peers was higher for those with high family affluence.

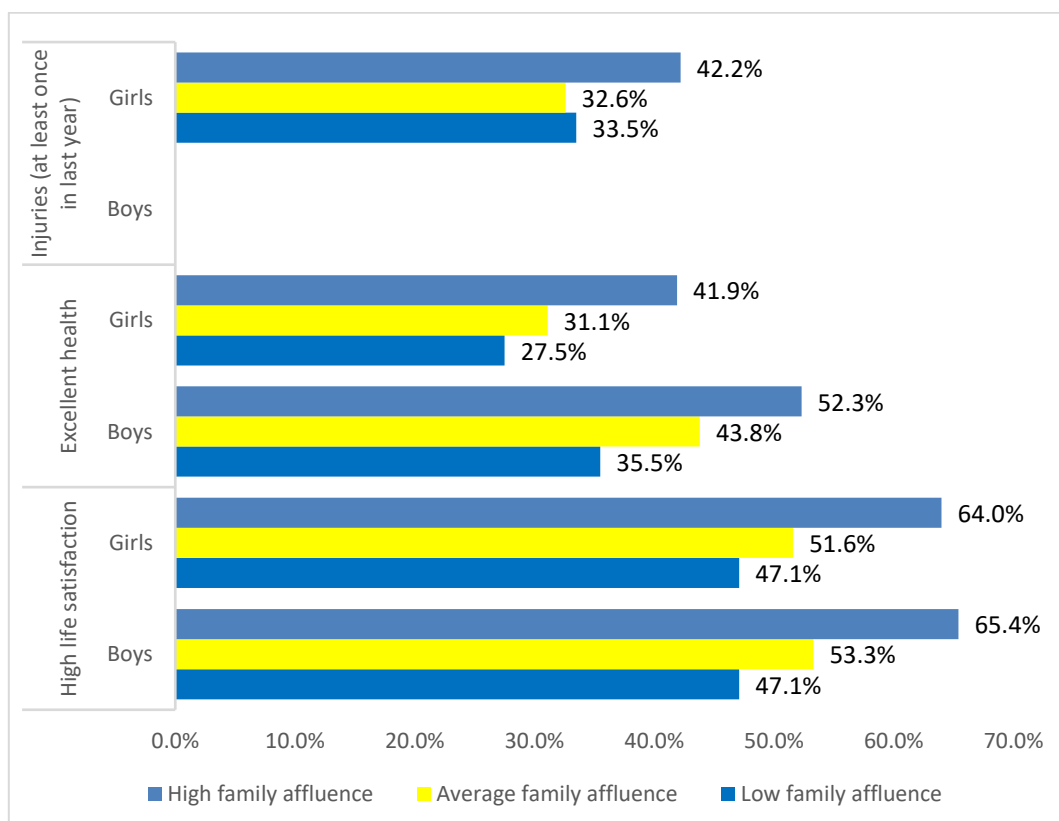
There was a positive association between family affluence and two dimensions reflecting relationship with school, but only for girls. Girls coming from high-affluence families felt more pressured by schoolwork and fewer of them had a positive opinion about school compared to those with low family affluence.

Health and well-being

A greater percentage of adolescents who had high scores in three out of six indicators of health and well-being were from high-affluence families. Life satisfaction was also higher for girls and boys with high family affluence. Greater proportions of those with above average or average family affluence considered their health to be excellent than those with low family affluence, with a positive difference of 16.8% for boys and 14.4% for girls with high family affluence.

The association between family affluence and the frequency of suffering from injuries/accidents requiring medical care was significant among girls, but not boys. Girls with high family affluence reported such events in a higher percentage than those with average or low family affluence (Fig. 81).

Fig. 81. Health and well-being and family affluence

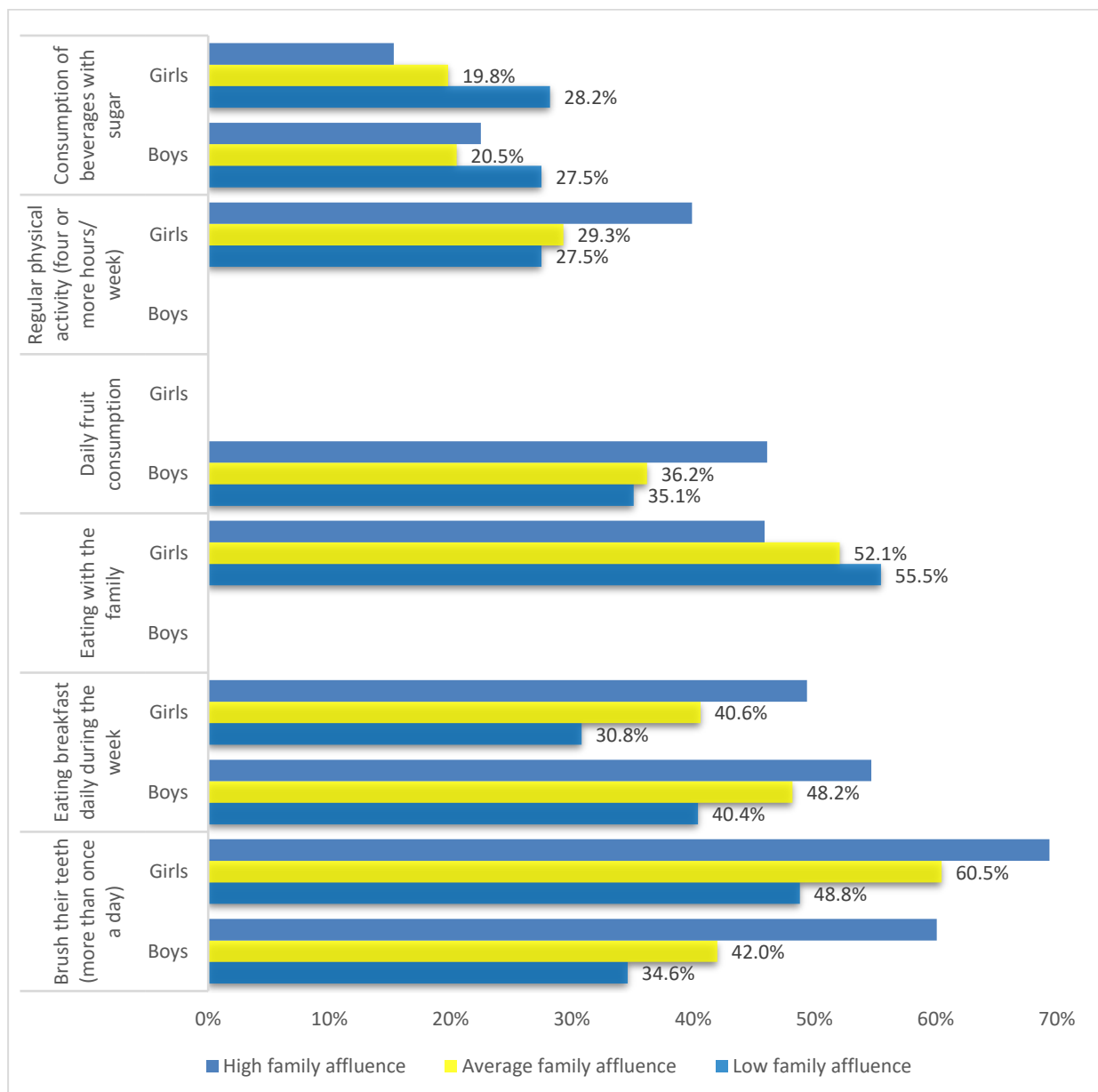


Health behaviours

For four out of six health behaviours that were significantly associated with family affluence, the situation favoured those with high family affluence: regular physical activity, daily fruit consumption, eating breakfast during the week and brushing teeth at least twice per day. Compared to those with average or low family affluence, a larger proportion of girls with high family affluence stated that they engage in regular physical activity, a larger proportion of boys with high family affluence stated that they consume fruit daily, and a higher percentage of adolescents with high family affluence of both genders have breakfast daily during the week and brush their teeth at least twice a day.

A higher percentage of adolescents with low family affluence consumed sweetened soft drinks daily compared to adolescents in the other two categories. This trend was clear for both genders. On the positive side, a greater percentage of girls with low family affluence ate with their family (Fig. 82).

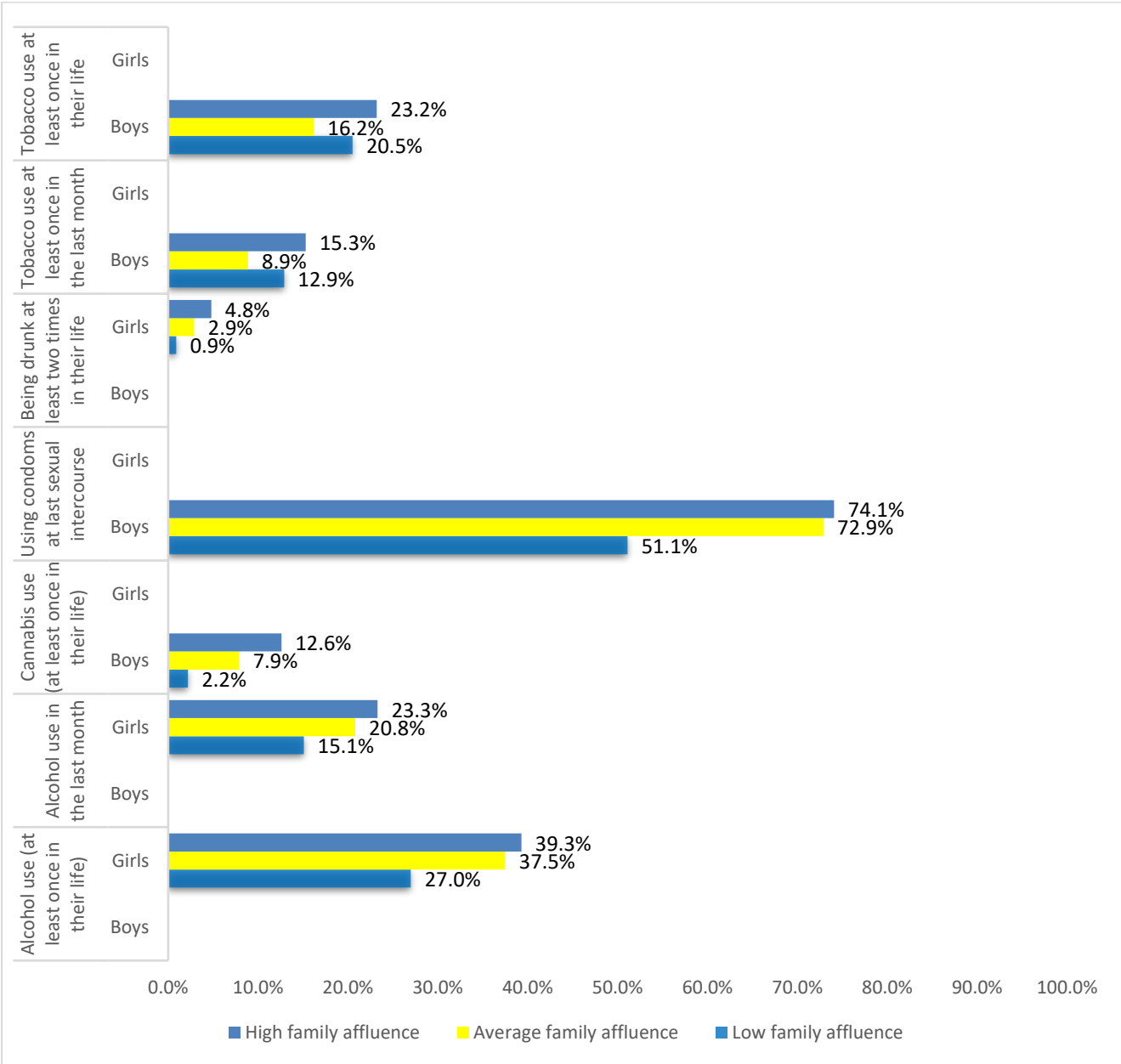
Fig. 82. Health behaviours and family affluence



Risk behaviours

Most risk behaviours¹ are reported with higher frequency among adolescent boys and girls with high family affluence. Boys in this category reported, in higher rates, that they had used tobacco or cannabis at least once in their life. The same trend was also observed in the proportion of those who reported using tobacco in the last month. For girls, alcohol use (throughout life and in the last month) and drunkenness episodes (at least two episodes in their life) seemed to be more frequent among those with high family affluence compared to the other two categories. There was, nevertheless, a considerable difference between the proportions of adolescent boys with high family affluence who used condoms at last sexual intercourse compared to those with low family affluence (a 23% difference) (Fig. 83).

Fig. 83. Risk behaviours and family affluence



¹ With the exception of using condoms, which, although it is a protective behaviour, has been reported along with behaviours such as the age of first sexual intercourse (early initiation being considered an indicator of health risk) earlier in this report.

Final considerations

Overall, high socioeconomic status or family affluence seems to be favourable to better health and well-being but also to more healthy behaviours, from eating breakfast and having lower consumption of carbonated beverages, to participating more in vigorous physical activity. The same does not hold true regarding the frequency of engagement in risk behaviours: both girls and boys with high family affluence reported more engagement in tobacco, cannabis or alcohol use in higher proportion than those with low family affluence.

Results concerning social support are mixed. Adolescents with high family affluence perceive greater support from their parents and peers, but the relationship with school among girls and perceived support from teachers are reported in lower proportion than for those with low family affluence.

Reference

Currie C, Inchley J, Molcho M, Lenzi M, Veselska Z, Wild F, editors (2014). Health Behaviour in School-aged Children (HBSC) study protocol: background, methodology and mandatory items for the 2013/14 survey. St Andrews: Child and Adolescent Health Research Unit, University of St Andrews (<http://www.hbsc.org>, accessed 7 May 2020).

Conclusions



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Adolescence is considered a period of good health in one's life compared to previous and subsequent stages. During this critical phase in becoming healthy adults, behavioural but also micro- and macro-social factors have immediate effects.

Data on the adolescent population are frequently overlooked in national and international health statistics or are aggregated with those of groups of children or young adults. One of the reasons for this is that adolescence is considered to be a period of maximum health. It is true that over the last 2–3 decades, adolescents in Europe have had the opportunity to enjoy levels of health that previous generations did not have. Despite this, various indicators show that adolescents have not achieved maximum benefits from this period of maximum potential.

Risk behaviours and negative emotional states in adolescence lay down the prerequisites for inequalities in health during adulthood. Specialists who shape and implement health policies need valid data to inform initiatives to tackle these issues. The HBSC study was developed for this purpose. It is 38 years since the first HBSC survey was carried out and 14 years since it was implemented at national level in Romania. In all these years, the study has provided relevant data to shape health strategies for children and adolescents. The HBSC reports are also potential sources of information for parents, teachers and health educators and helps them better understand the complex causality of young people's health.

The present study provides an overview of the life contexts of adolescents (social, school and family), dimensions of health and well-being, as well as of positive and risk behaviours. The following (positive and negative) conclusions can be drawn from the HBSC Romania 2018 study, based on data gathered from a representative national sample of 4567 adolescent girls and boys aged 11, 13 and 15 years.

- The family seems to be a positive environment for 11-, 13- and 15-year-old Romanian adolescents. On average, nine in 10 speak easily with their mother about the things that concern them. There are significant gender and age differences concerning the quality of communication with the father, with girls aged 13 and 15 reporting in a lower percentage than boys that they are satisfied with communication with their father.
- On average, 80% of adolescents feel positive family support.
- For a large segment of adolescents, school is not perceived as an environment that stimulates or is enjoyable. School satisfaction decreases significantly from age 11 to ages 13 and 15. School satisfaction is reported by 37% of pupils at age 11 but does not exceed 20% at ages 13 and 15. Overall, only 25% of girls and 22% of boys state that they like really school.
- Increased stress generated by schoolwork is reported by four in 10 of Romania's adolescents aged between 11 and 15. Girls feel higher levels of stress than boys. Low school satisfaction could be explained by the characteristics of the school ethos, rather than the schoolwork itself.
- Positive dimensions of the school environment are linked to support provided by teachers and classmates (most strongly perceived by 11-year-olds). Seventy-three per cent of adolescents aged 11 perceive their teachers as supportive, but this decreases substantially among 15-year-olds (33%).
- The peer group is an important reference point for adolescents. Six in 10 adolescents consider that they benefit from the support of their classmates.

- Almost half of adolescents socialize on online networks. Girls use online media to get in touch with friends to a greater extent than boys, regardless of age. Nevertheless, only two in 10 adolescents report that they prefer to communicate online with others.
- Perceived well-being is a fundamental positive health dimension. Overall, 50% of Romanian adolescents report above-average life satisfaction (the percentage decreases with age and is lower for 13- and 15-year-old girls).
- Self-assessment of health is another relevant indicator for well-being. Over 40% of adolescent boys perceive that their health is excellent, while only one third of girls do so.
- Girls report headaches and stomach aches in higher percentages than boys across all age groups, with a frequency of one or several times per week. Girls also more frequently report that they resort to medication to deal with the pain.
- One in four girls and one in five boys report difficulties in falling asleep, 27% of girls and 16% of boys feel anger, and 37% of girls and 27% of boys have feelings of unhappiness more frequently than once a week.
- Emotional problems become more frequent with age, especially for girls. At age 15, one in three girls feels depressed, scared, tired or lonely, and one in five feels hopeless, at least 3–4 times a week. By comparison, these emotional issues are reported by fewer than 20% of girls at age 11, with the exception of fatigue and feelings of fear. Emotional problems are up to two times less frequent in the case of boys and the increasing trend in the frequency of these negative emotions with age is not as prominent as for girls.
- Almost half of 11- and 13-year-old boys and more than one third of girls of the same ages suffered injuries or accidents that required medical care in the previous year. A decline in these incidents is observed from age 11 to 15 for both girls and boys.
- Overweight and obesity (calculated based on the BMI) is significantly higher for boys (23%) than for girls (15%). At age 15, almost one in three adolescents see themselves as too fat.
- Eating habits play a key role in the healthy development of children and adolescents. More than half of Romania's adolescents do not eat breakfast before going to school. Only 31% of 15-year-old girls eat breakfast daily during the week.
- Only 39% of adolescents consume fruit daily, and the rate of daily vegetable consumption is even lower (30%). Daily consumption of fruit and vegetables decreases significantly with age.
- Daily consumption of sweets is reported by one third of adolescents; girls consume sweets more often than boys, regardless of age.
- Daily consumption of soft drinks is reported by 21% of pupils; boys consume more soft drinks than girls. However, this trend in consumption shows a steady decline between 2006 and 2018 for both genders.
- Daily consumption of energy drinks is reported by 5% of the boys and 2.5% of the girls. Consumption of energy drinks increases with age.
- Physical activity is an essential element for improving health and preventing obesity and overweight. The small percentage of adolescents (18% boys and 10% girls) who participate in daily physical activity in accordance with the minimum WHO recommendations (60 minutes per day) is worrying. There are significant differences between age groups, with the lowest prevalence being recorded at age 15.
- A higher percentage of adolescents participate in vigorous physical activities outside school classes at least four times a week. There are significant differences between boys (48%) and girls (32%). A noteworthy decrease with age is recorded for both genders.

- Overall, almost three in four of Romania's adolescents spend two hours or more per day in front of the TV/tablets/computers during week days, with the percentage increasing significantly during weekends.
- Oral health is part of general health. Half of 11–15-year-olds brush their teeth at least twice a day (in accordance with dental hygiene recommendations). A significantly smaller percentage of boys (44%) brush their teeth than girls (60%).
- The use of substances (tobacco, alcohol and cannabis) constitutes health-risk behaviour. Twenty-two per cent of 15-year-old boys and girls state that they have smoked at least once in the last 30 days. The percentage decreases to 8% among 13-year-olds and to 2% for 11-year-olds. There are no significant differences between boys and girls in substance use.
- Half of boys and one third of girls aged 15 have consumed alcohol at least once in the last month. More boys than girls report alcohol consumption in the last month.
- Episodes of drunkenness in the last 30 days were reported by 8% of boys and 4% of girls. There are significant differences between age and gender categories, with 15-year-old boys reporting being drunk most frequently (13%).
- Use of cannabis in the last 30 days is reported by 5% of 15-year-old boys and 3% of 15-year-old girls, while use of cannabis at least once in their life is reported by 8% of boys and 5% of girls.
- Sexual health represents an essential component of adolescents' physical, psychological and social development. The percentage of 15-year-olds reporting having had sexual intercourse is 28.6% for boys and 8.5% for girls. A constantly decreasing trend in the number of adolescent boys and girls who have had sexual intercourse is observed between 2006 and 2018.
- Of the boys who reported having started their sexual life, one third stated that it began between ages 11 and 13. Of sexually active girls at age 15, 14% began their sexual life between ages 11 and 13.
- Among sexually active adolescents, 67% of boys and 60% of girls used condoms at last sexual intercourse, while 11% of boys and 9% of girls used the contraceptive pill. The tendency to use condoms decreased over the years among boys by over 13% (2006–2018), while the percentage of condom use in girls is the same as in 2006.
- Repeated involvement in gambling is considered to be a very risky behaviour. One in two boys and one in 10 girls have bet money at least once in their life through, for example, gambling and sports betting. Three in 10 boys had been involved in betting or gambling activities at least once in the last 30 days, while the percentage of girls who had bet money in the last year is almost five times smaller.
- Fourteen per cent of boys and 8% of girls reported having resorted to bullying behaviour towards others in the previous two months, while 12% of boys and 11% of girls reported being victims of bullying in the previous two months. The percentage of those who engage in face-to-face bullying (as the bully) decreased by almost 50% between 2006 and 2018. A similar decreasing trend in the number of bullying victims between 2006 and 2018 is found among boys. In the case of girls, there is also a smaller decrease between 2006 and 2018 and data indicate an increase of 2% between 2014 and 2018.
- Cyberbullying (through, for example, social media and SMS) in the previous two months was more commonly initiated among boys (8%) than girls (4%). More boys (6%) reported being victims of cyberbullying than girls (3.8%).
- One in five boys aged 11 and 13 has been involved in at least three fights in the last year. The percentages among boys decrease at age 15 by about 5%. For girls, the percentages

are much smaller for all age groups, and the occurrence rate decreases from age 13 to age 15.

- About 13% of 13- and 15-year-old boys and girls state that they followed a diet to lose weight in the previous year. The percentage of those on a diet increases with age for both girls and boys.
- Strategies used by adolescents to lose weight are frequently unhealthy: skipping meals, fasting, smoking and resorting to weight-reduction pills. A gender trend in the use of these strategies is observed, with girls using them in greater proportions than boys.
- Eating and drinking in front of the TV and other screens (computer, tablet) is widespread among adolescents of both genders: between 40% and 50%, regardless of age, report that they usually eat/drink in front of the TV 3–4 times per week. Girls of 13 and 15 report this behaviour in a higher proportion than boys of the same age.
- The socioeconomic context can influence adolescents' health and well-being in a positive or negative way. Being part of a family with increased financial resources positively contributes to life satisfaction, perception of having excellent health, higher fruit consumption, eating breakfast, oral hygiene, lower consumption of carbonated beverages and participating in vigorous physical activity. Involvement in risk behaviours such as smoking, alcohol and cannabis use, and episodes of drunkenness are also more frequent.

The results outline several key areas where macro-social interventions (public social protection and education policies), meso-social interventions (education practices and priorities designed by schools and community) and micro-social interventions (at group and family levels) should be prioritized. They have been grouped into **deficient areas**, where intensification of efforts to increase behaviours/protection factors and reduce behaviours/risk factors is required, and **resource areas**, which can be developed and used as means and channels for intervention in the deficient areas.

Deficient areas

Young people's **nutrition** is an area that requires multidimensional coordinated interventions focusing especially on encouraging eating breakfast and daily consumption of fruit and vegetables and decreasing consumption of sweets and soft drinks. Macro-and meso-social interventions can prove especially efficient in decreasing consumption of sweets and soft drinks by promoting initiatives such as limiting the sale of these products near on in schools, applying stricter regulation to televised and direct marketing for beverages and foods with high sugar content, and facilitating access for pupils of all ages to healthy alternatives (such as drinking-water sources in schools through water dispensers, and expanding national programmes for the supply of daily fruit to schools).

Physical activity is another key area for ensuring healthy growth and development, but it currently is not a priority area in education. Reducing sedentary behaviour and increasing participation in vigorous physical activity among pupils in Romania to 60 minutes per day are expected to be included in the plan to promote children's and adolescents' health. Ensuring provision of sports facilities in communities and schools, increasing the number of mandatory physical education classes and educating parents and teachers to recognize the importance of physical activities are three possible actions with potential long-term protective effects that can be taken at different levels to encourage healthy routines among young people.

Risk behaviours such as **smoking, alcohol and cannabis use** also require coordinated action from various institutional entities. Focusing efforts only on providing information on the

negative consequences of these behaviours (which are often already recognized and well known by adolescents) does not cover the skill deficits. Beyond ensuring a favourable legislative framework, the literature suggests that interventions focused on developing life-skills training are among the most effective approaches in countering risk behaviours. Strategies with substantial potential to prevent/counter these behaviours include prioritizing the development of critical thinking and promoting communication skills (assertiveness, resistance to social pressure), self-efficacy, a positive self-image, and problem-solving and decision-making skills.

Similar life-skills strategies also prove effective in relation to **sexual health**, where data show that sexually active adolescents from Romania have one of the lowest rates of contraceptive use in Europe. Decisions to initiate sexual behaviour and use means of protection are largely influenced by the information young people possess, but are also affected by their communication skills. Public and community policies should focus on:

- developing accessible and free counselling and family planning services;
- recruiting human resources specialized in communicating and advising young people, who often feel that they are receiving inadequate information about these problems; and
- facilitating access to free or minimal-cost contraceptive methods for young people.

Some of the highest percentages of **bullying and fighting** in Europe have been recorded among young people in Romania. The adoption, adaptation and implementation of programmes to combat and prevent bullying is urgently required to achieve a significant decrease in this negative phenomenon, which is almost non-existent in other European countries, particularly those in the north (such as Denmark, Iceland, Norway and Sweden). Violence-prevention programmes in schools and communities must consider the rising phenomenon of cyberbullying. The latter phenomenon is directly linked to accelerated growth in time spent on the Internet and on social networks by young people, environments that allow not only quick access to useful information, but also the rapid spread of risk behaviours.

Effective individual interventions aim to improve personal skills (life skills), while meso-level interventions should be focused on creating a community and school environment that is unfavourable to the propagation of these behaviours but instead focuses on open communication and good supervision. Some examples would be: explicitly and publicly denouncing bullying in all its forms; having standardized antibullying rules in education institutions and classes; providing supervision of activities during breaks; encouraging the reporting of bullying situations; establishing a complaint system to ensure victims' comfort and safety; supervising online activities; and maintaining close communication between schools and parents regarding bullying (young people tend to talk with their parents, rather than their teachers, about these experiences).

HBSC data on **oral health** show that Romanian pupils have one of the lowest rates in Europe in respect to oral hygiene behaviours (brushing teeth twice a day) and that this trend has been constant since 2010. Meso-social interventions should focus on educating pupils in schools about proper dental hygiene and educating parents to supervise and encourage toothbrushing until stabilized as an integral part of daily routine.

Although **accidents** do not constitute risk behaviours by themselves, they arise as the direct consequences of risk behaviours or situations such as not using injury prevention equipment and behaviours (bicycle helmet, seat belt and car seat for children, for example). The reduction in the number of accidents among the young population is a priority at European level, involving not

only educating parents and children (to, for instance, use bicycle helmets), but also legislative and macro-social measures.

Ultimately, risk areas are interlinked and are exacerbated by **structural inequalities** (social protection and health systems) between young people in different countries, which makes it difficult to design coordinated interventions that can be implemented in a standardized fashion. At national level and beyond (the macro-structural differences between countries), the data in this report show that both **inequalities regarding economic resources** and **inequalities in cultural and human resources** play a big part in generating the data on risk areas and behaviours. It therefore is necessary to take a closer look at source areas that can be developed regardless of socioeconomic or community-level barriers.

Resource areas

Positive and negative relationships in the family have immediate and visible effects on young people's health. Good communication with parents significantly reduces the likelihood of involvement in risk behaviours, the occurrence of mental health problems, negative attitudes towards school, reduced school performance and feelings of intense school stress, and is associated with greater life satisfaction and low rates of somatic distress and medical drugs use. Similarly, poor relationships and, in extremis, any form of abuse, are associated with a wide range of risk behaviours and a low state of well-being. Almost 80% of young people say they have a good or very good relationship with their parents, especially with the mother. This is good news and highlights the potential of focused approaches to developing parenting and education skills through communication and negotiation for both parents and teachers.

The study data indicate the need to accelerate efforts to create a stimulating and friendly **school environment**, so that the school becomes a community resource that is available to young people of all ages. The development of targeted interventions to reimagine the school as a resource cannot be achieved in the absence of an institutional and legislative framework supported at the level of ministries of education, health, labour and social protection. Meso-social and micro-social interventions must be derived from national priorities that are coherent and stable, at least in the medium term, are properly financed and are adapted to current realities. It therefore is necessary that HBSC data and evolution trends concerning the health dimension of adolescents be incorporated into these policies, strategies and intervention programmes in Romania, as they are in many European countries.

Ultimately, it is important to keep in mind that this report allows the problems, worries and concerns of young people to be heard, and highlights how these relate to their dimensions of health and well-being. It would be desirable for the **voice of adolescents** to be reflected in public, social, education and health policies that are initiated and promoted by specialists and politicians. Beyond being a target group – passive receivers of interventions from authorities – **young people should be seen as active promoters of their health and development.**

The WHO Regional Office for Europe

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