

# **Health Behaviour in Georgian School-aged Children**

## **(The pilot study)**

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## **Abstract**

*The Aim.* Understanding young people's problems, consideration of their interests and development of youth policies is becoming of a huge importance worldwide, and among them in Georgia, in order to aid a long-term democratic and socio-economic development of the country. The aim of my study was to develop the methodology of the HBSC study and difficulties that will be caused by its introduction to the society, to examine and obtain the feedback from children on the questions used in the HBSC surveys, and to create a relevant to Georgian young people questionnaire.

*The Methodology.* The pilot study is a mixed-methods study. A sequential exploratory strategy was implemented for the methodological development of the study. Four schools had been randomly selected for the purpose of the study. The focus-group discussions with a member of the working group and also with students were conducted within the qualitative data collection process. The internationally standardised questionnaire was translated into the Georgian language and was adjusted to be administered in the classrooms. The qualitative data were transcribed and coded, whereas, the quantitative data were entered in SPSS Software Programme and analyzed.

*The Findings and Discussion.* The pilot study found parental/students' distrust towards offered anonymity. This became a reason of high percentage of those who refused to participate in the study and those who did not desire to respond to the questions on relations with parents, alcohol abuse and physical activities. A few differences have been observed between Georgia and the HBSC member countries

(identified by the HBSC 2009/2010 survey). These differences referred to perceived classmate support, perceived body image, daily breakfast and fruit consumption, and physical fight. The study has also discovered that the instructions for teachers were not clear and sufficient enough for them to realize their role in the study and follow suggestions and guidelines. The development of the study observed that questions on sexual health should be excluded from the questionnaire.

*The Conclusion and Recommendations.* The study development showed that questionnaire relevant to Georgian respondents should be prepared without questions on sexual health in it. Separate questionnaires for boys and girls have also been suggested and questions on a menstrual cycle will differentiate them. Apart from this, in order to solve the problem of teachers' insufficient training, a more in-depth workshops should be held for them. The pilot study "Health behavior in Georgian school-aged children" answered its research questions and made Georgia ready to become a member of a strong multi-disciplinary international network.

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## 1. Introduction

Evidence gathered over the last two decades shows that disadvantaged social circumstances are associated with increased health risks (Currie 2009). As a result, health inequalities are now embedded in contemporary international policy development. The World Health Organization (WHO) Commission on Social Determinants of Health claims that the vast majority of inequalities in health between and within countries are avoidable (CSDH 2008), yet they continue to be experienced by young people across Europe and North America. Research into young peoples' health and health behaviour and the factors that influence them is essential for the development of effective health education and health promotion policy, programs and practice targeted at young people (Currie 2000). According to the WHO, Health is conceptualized not merely as absence of illness or disease, but as both psychological and physical well-being (Currie 2009). It is important that young people's health need to be considered in its broadest sense, as encompassing physical, social and emotional wellbeing (Currie 2000), but often, unfortunately, they are neglected as a population group in health statistics, being either aggregated with younger children or with young adults (Currie 2012).

First step toward understanding young people's health is to obtain accurate data that represent the prevalence of health behaviour of young people and surveys are the most common methodological technique to understand and assess it (Smet 1999). Health behaviour in school-aged children (HBSC) study was the first international surveys on adolescent health in Europe, with fieldwork first being undertaken in 1983 in three countries in collaboration with WHO Regional Office for Europe. The aim of the study is

to gain new insight into and increase understanding of young people's health behaviours, health and well being in their social context and to collect high quality comparable cross-national data in order to achieve this (Smet 1999).

Georgia is one of the countries in the South Caucasus with the population of 4.39 million (NSOoG 2011). The prevalence of non-communicable diseases in Georgia is obvious due to the causes of mortality: non-communicable diseases and injuries account for 95% of all mortality cases, 0.8% of which is the mortality rate among young people aged from 16 to 24 (NCDC 2012).

Understanding young people's problems, consideration of their interests and development of youth policies are becoming of high importance in Georgia these days with a subsequent long-term democratic and socio-economic development of the country. In this regards, the United Nations Population Fund (UNFPA) and the United Nations Children's Fund (UNICEF) actively cooperate with the public sector to develop a clear picture on young people, their roles and needs in the country. Based on these, relevant approaches and mechanisms should be elaborated with the aim to give a hand in the proper development of the youth in Georgia.

It can be observed that appropriate attention is not paid to young people aged 11, 13 and 15 in Georgia. As numerous studies have shown, they are not separated from children or older adults and, despite being of importance, seem to be neglected as an individual population group. Unfortunately, Georgia is not among the HBSC member countries, and has a serious lack of the data that represent the prevalence of health behaviour among this population group, thus, making it difficult to keep an eye on young people's health conditions. In order to design policies and interventions focused on young people, and

monitor them in the future, health science specialists need to have appropriate data regarding the current state of health and lifestyles of adolescents. With the aim of developing relevant comprehensive policies, programs and practices to influence the health behaviours of young people, health authorities should be aware of the nature of their health behaviour patterns, as well as the factors which influence these patterns significantly. The research, which will have an in-depth insight into Georgian children's health behaviours and the factors that influence them, will be the first important step for the development of effective health education and health promotion programmes and policies for young people in Georgia.

In today's world there are many surveys and many of which are aimed at children but none possess the three salient characteristics that have defined HBSC: (1) it has been sustained over a long period of time, more than a quarter century; (2) it has built survey research capacity over that time in a varied context of countries; and (3) it is driven by underlying theoretical approach that is informative, innovative and sensitive to the leading issues of the time (McQueen 2009). Each of these characteristics is a considerable challenge to any collective knowledge seeking endeavor and exactness, the characteristics which made me have a strong desire to see my country among HBSC member-countries.

Becoming a member-country of the HBSC study, firstly, requires a pilot study to be conducted, the need for which has been the core subject area for my Master's Thesis. This study is vital for Georgia. It can be a cornerstone for Georgia to become a member of a strong multi-disciplinary international network, and contribute to scientific evidence based on adolescent health and its determinants. Apart from this, it will play a huge role



in reducing health inequalities among young people by means of transforming the research on young people's health into policies and actions, both within and beyond the health sector. This will also involve young people functioning as models in the design and implementation of policies and interventions to promote their health.

## **2. Research aim and questions**

The aim of my study is to develop the methodology for the HBSC study and address any tensions that may arise by its inception; to examine and obtain the feedback from children interviewed implementing the questions used in the HBSC surveys; and to create a questionnaire appropriate to Georgian young population.

I am hoping to find responses to the following questions in particular:

- Which part of the HBSC standard questionnaire can be used in the Georgian context?
- What issues must be taken into consideration to ensure validity and reliability of the study?

## **3. Background and theoretical approach**

### **3.1 Historical development of HBSC**

In 1982, researchers from Norway, Finland and England met to discuss the problems of lack of comparability of cross-national data on smoking among young people. They agreed that they would collaborate on the development of a new international survey

using a common research protocol and research instrument so that data could be compared. This initiative led to the conceptualization of a study that would look not only at smoking but would extend to include other important health-related behaviours in the context of young people's lifestyles (Currie 2009). The WHO Regional Office for Europe adopted HBSC soon after it was established and the study became a "WHO Collaborative Study", and this has been an important driver of the success of the network (Currie 2009). Researchers from different countries soon joined the network. Currently, the HBSC study includes 43 countries and regions across Europe and North America.

From its very origin the HBSC was not to be a standard epidemiological study nor the one in which smoking was seen simply as a health damaging risk behaviour. Instead of this, health related behaviours, such as smoking, were conceptualized as forming a set of interconnected patterns within adolescent lifestyles. The approach involved a broad understanding of how young people lived, both the wider society and the social domains. Health was acknowledged as a resource for everyday living, and not just the absence of disease (WHO 1986).

HBSC recognizes that poor health cannot be explained simply by germs and genes. Behaviours established during adolescence can continue into adulthood, affecting issues as mental health, the development of health complaints, tobacco use, diet, physical activity levels and alcohol use. HBSC focuses on understanding young people's health in their social context – where they live, at school, with family and friends. Most important goal for researchers in the HBSC network is to understand how these factors, individually and together, influence young people's health as they move from childhood into young

adulthood (Roberts 2007) that can be used to monitor young people's health and determine effective health improvement interventions (Currie 2012).

HBSC is a school-based survey and data are collected through self-completion questionnaires administered in the classroom in every 4 years. Survey questions cover a range of health indicators and health-related behaviours as well as the life circumstances of young people. The core questions provide information on: demographic factors, including age and state of maturation; social background, including family structure and socio-economic status; social relations provided by family, peers and school environment; health behaviours, including physical activity, eating and dieting, smoking, alcohol use, cannabis use, sexual behaviour, injuries, violence and bullying; well-being indicators, including symptoms, life satisfaction, self-reported health, body mass index and body image (Roberts 2007).

HBSC study has acknowledged the importance of maturational processes that affect cognitive function, self-perceptions and psychological processes. Social influences and expectations also vary according to the age. The selected age groups – 11, 13 and 15 – represent the onset of adolescence, the time when young people face the challenges of physical and emotional changes; and the middle years, when young people start to consider important life and career decisions (Currie 2009). These years mark a period of increased autonomy in which independent decision-making that may influence their health and health-related behaviour develops (Currie 2012). Adolescence is an age of opportunity for children, and a pivotal time for policy-makers to build on their development in the first decade of life, to help them navigate risks and vulnerabilities and to set them on the path to fulfilling their potential (UNICEF 2011). HBSC study seeks to

identify the extent of inequalities and highlight the need for preventive action to “turn this vulnerable age into an age of opportunity” (Currie 2012).

Gender is not less important than age in HBSC study. The biological and psychological factors contribute to change relationship between gender and health during adolescence. According to the HBSC research (Currie 2009), boys are more likely to be overweight or obese, but girls are more likely to perceive themselves as “too fat” and to engage in weight loss behaviours. Girls are more likely to consume healthy food but are more likely to skip breakfast and less likely to be physically active. At the same time, boys are more likely to engage in risk behaviours, such as alcohol and cannabis consumption, bullying and fighting (Currie 2008).

Developing a better understanding of such differences in health and well-being can contribute to the understanding of how well boys and girls cope with the developmental challenges associated with the adolescent years and can be a fundamental to the improvement of young people’s health (Griebler 2010).

### **3.2 Social context**

Socialization is a process in which an individual’s standards, skills, motives, attitudes and behaviours change to conform to those regarded as desirable and appropriate for his/her present and future role in any particular society (Boyce 2008). The family is the pre-eminent social system in a young person’s development. Numerous health behaviours and attitudes in adolescence are begun in the family setting during childhood. Lifestyle-related habits in hygiene, nutrition and physical activity, as well as communication skills and social competences, are an essential part of family education. Deficits in these areas

are among the main reasons for health impairments in late life (Currie 2000). In adolescence the educational role of the family decreases. It is typically a time when young people begin to challenge parental controls and to be influenced by their peers, schools, media and the family, as first development context, has the greatest influence on socialization (Boyce 2008). The family situation needs to be analyzed to fully understand how it shapes the lifestyles of young people. In addition, parent-child communication is acknowledged as one of the basic elements of analysis the family.

Within HBSC study, ecological systemic perspective is used to describe the family structure in which adolescents live and to analyze the family communication (Griebler 2010).

Based on that theory, the micro-system is a layer closest to the child and contains the structures with which the child has direct contact. It encompasses the relationships and interactions a child has with her/his immediate surroundings. Structures in the micro-system include family, school, neighborhood or childcare environments (Bronfenbrenner 1994). At this level, three subsystems can be defined: conjugal, parental and fraternal. Due to the effect conjugal is the most important subsystem. Conflicts between parents, including divorce or separation, modify the family structure and alter the family dynamics, which results less implication in the rearing of the child (Hoffmann 2006). As the HBSC researches show a family dynamic that offers open communication is associated with health and healthy behaviours (Currie 2000).

The wider spheres of influence which may impact indirectly on children's experiences, development and wellbeing is known as exosystem. For example, the outcome of divorce in family, such as: decreasing of family income, the change of residence, neighborhood

or school; lack of employment or underpaid job are associated with the well-being of the children and their opportunities in life (Weinraub 2002).

While the parent-child relationship offers the adolescent essential guide and a secure base to explore his/her identity and the complexities of the adult world, peer relationship provide the developing adolescent with the opportunity to explore his/her potential as an autonomous, independently thinking and acting individual (Griebler 2010). The influences of different sources of social support have been compared with respect to their effect on early adolescents' psychological well-being. Results showed that older boys and girls perceived less social support from parents and more social support from friends, with the latter being a stronger protective factor against life dissatisfaction and psychological symptoms (Cristini 2007).

There are a lot of empirical data on the importance and affect of peer relationship in relation to health, well-being, perception of quality of life, school adjustment and happiness (Rubin 2008). From the Social learning theory point of view, peers relations provide an advantage context in which skill can be learned relating to empathic capacity, the adoption of others' perspective, communication, cooperation, and the management and resolution of conflicts, children with no friends have fewer opportunities to learn social skills and their difficulties in relation to others can often perpetuate their isolation (Bender 1997).

Attachment theory of point highlights that characteristics and quality of early bonding with caregivers can facilitate secure relationship in the future (Allen 1998). This showed that adolescents with secure attachments are more socially competent when dealing with

their peers. Friendship helps with adjustment to new situations and in facing stressful life experiences (Griebler 2010).

Various researches show that there are differences in types of friendship. Friendship among girls focuses more on self-disclosure and sharing emotional states, sharing secret, etc., whereas boys focus on doing activities together (Shulman 1997).

Adults sharing common behaviours have greater probabilities of becoming friends. This influence has been assessed and interpreted from an exclusively negative point of view (Bender 1997). Data from the HBSC 2001/2002 survey showed the relationship between individual and how the subject perceives behaviours in the group of friends. For example, being the aggressor in bullying situations is related to the perception of antisocial behaviours, such as carrying guns in the group of friends, whereas those who perceive pro-social behaviours in their groups of friends are less prone to engage in bullying (Moreno 2009).

Although peer groups are important at all ages, friendship during adolescence plays a decisive role. Trust, self-disclosure and loyalty are aspects that characterize adolescent friendship, which is already aimed at intimacy as a result of the emotional and cognitive changes (Griebler 2010). Intimacy can be described here in terms of the ease of communication within peer relationships, as well as comfort in disclosing problems and worries with others (Freeman 2011). Children with close friends demonstrate better academic performance, lower rates of juvenile delinquency, compared with those who do not have friends as sources of intimacy and social support (Freeman 2011). Being liked and accepted by peers influences health and risk behaviours and is associated with psychological well-being (Boyce 2008).

HBSC study has acknowledged the importance of the electronic media communication (EMC), which has its benefits and risks. Researches show that massive use of EMC is associated with a poorer perception of health and difficulties with sleeping (Punamaki 2006). Attention is growing concerning the risks to adolescents of becoming victims of aggressive acts perpetrated by peers with the new technology (David-Ferdon 2007). For example, electronic bullying is a new form of bullying that may threaten adolescent social and emotional development. But on the other hand, EMC can be the facilitator of face-to-face contacts. In most countries, the large increase of EMC is associated to the increased number of afternoons and evenings spent with friends (Kuntsche 2006).

As already mentioned, childhood and adolescence are crucial period of the life course, which fundamentally influence all developmental aspects of life – including health and health behaviours. During this important periods substantial portions of their lives are spent at school (Boyce 2008). Schools are settings that can promote the health of students, not only through their curriculum and physical environment, but also through supportive school culture, climate and opportunities (Weare 2000). A supportive school environment may be considered a resource for the development of health-enhancing behaviours, health and life satisfaction, while a non-supportive school environment may constitute risk (Griebler 2010). Students who feel connected to the school or believe their school is a positive place are less likely to engage in health-compromising activities and students who feel that their schools are threatening and uninviting are prone to becoming involved with peers sharing similar negative attitudes (Resnick 1993).

HBSC has acknowledged the significant role of school in shaping pupils' self-perception and health behaviours. Numerous HBSC data analyses have been done better to

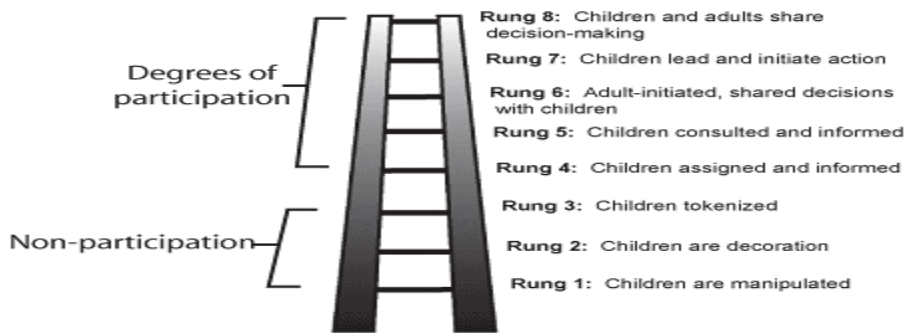


understand the affect of school on health and well-being. Norwegian analyses by Torsheim, Aaroe and Wold demonstrated that sense of coherence and school-related stress interacts in relation to subjective health complaints during early adolescence (Torsheim 2003). Work by Samdal showed that the predictors of students' school satisfaction with school differed from those for academic achievement. With respect to health risk behaviours, low-level student autonomy, high-level student support, low satisfaction with school and unreasonable expectations are seen as predictors of students smoking and alcohol use (Samdal 1998).

One of the key features of health promoting schools is an appropriate arena for students to participate in relevant aspects of decision-making concerning the students' life. Participation can be the main constituent of the teaching and learning strategies within democratic health education. Three key characteristics of any activity that qualifies, as participation had been pointed: participation must be active, participation involves choice, and choice must be potentially effective (Rifkin 1988).

On the basis of Hart's ladder of participation (Figure 1), which sets up procedural democratic criteria for distinguishing participation from non-participation, Simovska differentiates between two qualities of student participation in the school context, namely token, focused only on information and genuine participation, inclusion in decision-making (Simovska 2007).

Figure 1. Hart's ladder of participation.



Adapted from Hart, R. (1992). *Children's Participation: from Tokenism to Citizenship*. Florence: UNICEF Innocenti Research Centre.

The Ottawa Charter for Health Promotion states: “health is created for oneself and others, by being able to take decisions and have control over one’s life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members” (WHO 1986). But the social situation of adolescents is the opposite of that. Adolescents are not normally allowed to make decisions that concern their lives and to control their life circumstances (Currie 2000). In schools, adolescents are more like materials for pedagogical interventions than partners in and co-producers in learning. They are not allowed to vote. From the health promotion perspective, it is important to investigate to what extent students can take part in and influence their school structures, and to what they are able and encouraged to manage the challenges that school provides for them (Currie 2000).

In acknowledgement of the inextricable link between learning and health, the creation of supportive school environments lies at the heart of “Health Promoting Schools” concept. Samdal in her work says that major goal of schooling still seems to be considered the academic achievement (Currie 2000).

### 3.3 Health outcomes

During working on this section I came across very interesting review about health by HBSC working group. They highlight basic differentiation between positive and negative health using a variety of literature. According to that, negative health differs from positive with the negative definition of health pointing towards the absence of ill health, whereas positive definitions add more to health – for example, enjoying good health, feeling fit (Von Wright 1963, Griebler 2010). They also differentiated health definitions by cultural background and the actual perspective. The individual perspective is focused on the subjective experience of health and illness (Griebler 2010). WHO definition of health “as a state of physical, mental and social wellbeing and not only absence of illness and disability” strongly suggests subjective perspective (WHO 1948). The concept of subjective health, health-related quality of life and well-being are associated and hardly be separated from one another (Leplege 1997). WHO also makes clear that health is a resource and “not just the objective of living” (WHO 1986). According to that, conceptualizations good health includes: relative absence of emotional distress and chronic conditions; and presence of well-being and/or overall positive evaluation of health (Griebler 2010). Health can be acknowledged as a subjective experience that is situational and can be defined as a dynamic, lifelong process. Individuals vary in their own explanations of health and illness depending on their current circumstances, sex, social class and ethnicity (Blaxter 1990, Griebler 2010). For example, Blaxter distinguishes between health status (a relatively long-term property of individuals) and health state (a shorter term property). In this classification, disease/impairment reflects different dimensions of health status; and psychosocial

malaise and illness reflect health state (Blaxter 1990, Griebler 2010). In the study by West and Sweeting, measures reflecting health status were longstanding illness and self-rated health and measures reflecting health state were physical and malaise symptoms and accidents/injuries (West 2004).

As outlined above, health is a complex and difficult to define concept involving a variety of aspects as well as perspectives. Therefore, it is necessary to differentiate between physical and psychological standpoint on health.

Looking at adolescents' health always reveals remarkable findings. In terms of the mortality and morbidity, adolescence is one of the happiest periods in life. But on the other hand, when subjective measures of health such as self-rated health or psychosomatic complaints are used, a high prevalence of adverse health becomes obvious (Ravens-Sieberer 2008).

Over the last few decades, it has been observed an increase in health service attendance due to subjective health problems without any objectively verifiable disease. Researchers have described an increasing mismatch between the adaptation required in modern society and people's resources for coping with what is expected of them – a situation that the healthcare and social security systems in their present form cannot properly come to grips with (Breidablik 2008). Adolescent mental and subjective health has become a worldwide public health concern. In Sweden, self-reported mental and subjective health complaints, such as pain, sleeping difficulties, anxiety and various stress-related problems are common and seem to have increased over time among older adolescents, especially girls (Friberg 2012).

In assessing an individual's overall perception of their own health status, one of the most commonly used single item is to ask about their self-rated health. Self-rated health has been identified as an important indicator of the multi-dimensional construct, health (Cott 1999). It is based on individual's perception and evaluation of his/her health (Bjorner 1996). Self-rated health has been found to be a significant predictor of mortality and morbidity. Although, functional disability and the absence of chronic diseases are important to the formation of subjective health perceptions, people with chronic diseases can also report good health (Cott 1999).

The personal and socio-environmental factors interact leading to behaviours, which in turn affect psychological health status impacting personal perception of health. Specifically, variations in demographics, structural environments, physical health, social factors, lifestyle behaviours and psychological health status have all been found to predict various measures of self-rated health (Vingilis 2002). While some factors may directly affect adolescents self-rating of health, available evidence suggests that some of the variables have indirect influence, through the mediating affects of other variables, such as the effects of single-family status on self-rated health mediated by family financial situation (Vingilis 1998).

During a time of substantive social, psychological and cognitive change, many adolescents become acutely attuned to their weight and body (Ata 2007). According to the Youth Risk Behaviour Survey results for 2005, 45.6% of high school students were trying to lose weight. Although the desire to do so was more prevalent among females (61.7%), males also reported trying to lose weight (29.9%) (Ata 2007).

Body image is the dynamic perception of one's body – how it looks, and moves. It is shaped by perception, emotions, and physical sensations and is not static, but can change in relation to mood, physical experience, and environment. Because adolescents experience significant physical changes in their bodies during puberty, they are likely to experience highly dynamic perceptions of body image (Croll). More specifically, it is connected to the stronger desire to lose weight in girls (Gralen 1990). Some studies stated that pubertal development causes increased body dissatisfaction regardless of nutrition status changes that leads to weight managing behaviours (Cotrufo 2007). In some cases, the accumulation of the body during adolescents' physical changes can be excessive and may lead to obesity (Griebler 2010). It has been stated that overweight adolescents may adopt extreme weight reduction practices because they are further from their ideal weight or have failed to lose weight by means of modest eating or exercise change (Boutelle 2002). It may also be that the increased bias against obesity drives obese young people to turn to rapid or unhealthy ways to lose weight (Latner 2003). Young people who value their body and health are less likely to engage in rapid or extreme weight reduction practices, regardless of their body weight (Strauss 1999).

Body dissatisfaction and negative body image predict weight control behaviour that may manifest itself in both healthy (e.g., healthy diet, appropriate physical activity) and unhealthy (e.g., fasting, purging, extreme diets or training) manners (Knowles 2009). Body image problems are also related to substance use, low self-worth and poor mental health (Griebler 2010). Problems are more prevalent in girls than in boys, but this difference seems to be decreasing, as prevalence of negative body image among boys is increasing (McCreary 2000).

Body image can also be powerfully affected by cultural messages and societal standards of appearance and attractiveness (Croll). The influence is transmitted mostly by media images. Young people are especially responsive to media messages that display “perfect” and “ideal” body shapes and are at risk for preoccupation with physical appearance and developing a negative body image (Andrist 2003). Female adolescents in particular seek out magazines, internalize the messages and use the media as a source of information about how to improve their physical appearance (Ata 2007). In early adolescence, girls who look to magazines and advertising as important modes of defining and attaining the ideal body are more likely to experience body dissatisfaction due to the obvious discrepancy between their actual body size and the ideal depicted in the media (Ata 2007).

### **3.4 Health behaviour**

As already mentioned, adolescence is a period in human development that is characterized by change and transmissions. Consequently, adolescence should be the focus of efforts to promote healthful behaviours that are specific for individuals who are in a state of change and transition (Cowell 1997). Psychological changes encountered during adolescence, such as growing independence, the need to explore, to take risks and to seek self-identity, the need for peer acceptance, increased eating away from home, and busy schedules may all have an effect on eating patterns and food choices (Sigman-Grant 2002). At the same time, rapid physical growth creates an increased demand for energy and nutrients. Total nutrient needs during adolescence are higher than at any other time in lifecycle, and failure to consume an adequate diet during this time can potentially affect

growth and delay sexual maturation (Story 1992). In addition to the impact on growth and development, eating practices affect young people's risk for a number of immediate health problems, such as, iron deficiency, eating disorders, obesity, under-nutrition, bone health, and dental caries (Story 2002), and may prevent long-term health problems, such as coronary health disease, cancer, and stroke (Griebler 2010). There is evidence that dietary quality declines from childhood to adolescence and intakes of fruits, vegetables, milk and fruit juices decreases whereas soft drinks increase during the time (Lytle 2000). Skipping breakfast among adolescents may affect concentration, learning and school performance (CDCP 1996).

The problem of eating behaviour is increasing in Georgia. The fast food restaurants are getting more and more popular. This is reflected in the following indicators: 16.6% of young people are overweight and 7.1% of them are obese; 71.8% of young population (73.5% of boys and 69.8% of girls) eat less than 5 portion of fruits and vegetables daily (NCDC 2012).

HBSC study uses an Ecological Model (Figure 2) to understand the factors that influence adolescent eating behaviour (Griebler 2010). In this model, adolescents eating behaviour is viewed as being a function of multiple levels of influence. The framework also emphasizes the interaction and integration of factors within and across levels of influence. The four broad levels of influence are individual (intrapersonal), social environmental (interpersonal), physical environmental (community setting) and macro system (societal) (Story 2002).



Figure 2. Ecological Systems theory



Individual characteristics that influence eating behaviour include psychological factors – such as attitudes, beliefs, knowledge, self-efficacy, taste and food preferences- as well as biological factors such as hunger. Behavioural factors such as meal and snack patterns, weight-control behaviours and lifestyle factors such as perceived barriers (e.g., cost, time demands, and convenience) are also individual factors that have an affect on eating behaviours. It can also be influenced by their social environments including family, friends and peers. Interpersonal processes and relationships within the family and with friends, neighbors, and acquaintances all have a substantial impact on food choices and eating behaviours. This kind of influence can affect eating behaviours through mechanisms such as modeling, reinforcement, social support and perceived norms. The physical environment within the community influences accessibility and availability of foods. Community settings most proximal to adolescents and influential in affecting their food choices include schools, fast-food outlets, restaurants, shopping malls, vending machines, and convenience stores. The last influence in this model is macro system. It plays a more distal role in determining food behaviours. Macro system influences include mass media and advertising; social and cultural norms around eating; food production and distribution systems, which influence food availability; local, state and federal

policies and laws that regulate or support food-related issues, such as availability and pricing (Story 2002).

In a Hungarian national paper it was found that perceived good or excellent health was associated with daily fruit and vegetable consumption as well as regular breakfast consumption (Nemeth 2007a). Another Hungarian national paper reported a typical lifestyle-pattern among adolescents: daily consumption of breakfast and fibre rich foods were associated with physical activity, while television viewing was associated with the consumption of energy dense foods (Nemeth 2007b).

Healthy eating habits in childhood and adolescence promote optimal childhood health, growth and intellectual development and they can prevent various immediate health problems.

Another health behaviour that is fundamental to general health and well-being is oral health. A healthy mouth enables an individual to speak, eat and socialize without experiencing active disease, discomfort or embarrassment. Children who suffer from poor oral health are 12 times more likely to have restricted-activity days than those who do not (USGAO 2000). Oral health can lead to pain and tooth loss, a condition that affects the appearance, quality of life, and nutritional intake (Kwan 2005).

In order to maintain good oral hygiene and periodontal health, mechanical removal of dental plaque by tooth brushing twice a day has been accepted (Sheiham 2000). Brushing frequency plays an important role as a consistent and universal recommendation to the public for establishing a healthy habit (Griebler 2010). During childhood and adolescence parents play a dominant role in encouraging the adoption of brushing habits in their children.

Evidence from HBSC previous experiences indicates that improvement in oral health could be obtained only through adoption of programs of oral health promotion that are based upon the common risk factor approach (CRFA) at the population level (Griebler 2010). The CRFA addresses risk factors (smoking, diets with high saturated fats and sugars, alcohol, environmental hygiene etc.) common to many chronic diseases/conditions within the context of the wider socio-environmental milieu (Sheiham 2000). Since smoking and a poor diet are risk factors for several chronic diseases, and health behaviours are not practiced independently of each other, by promoting general health, oral health would also be improved (Koivusilta 2003).

Neglecting oral health care may be associated with adolescent lifestyles detrimental to health. In the Adolescents Health and Life-style study, tooth-brushing habits in adolescence have been shown to predict attained education level in early middle age. If the tooth-brushing frequency was low at the age of 12 years, at the age of 27-33 years these persons belonged to the less educated stratum of the society (Koivusilta 2003).

Healthy living during youth includes being physically active. But what is physical activity and how much of it is enough? Physical activity is defined as any bodily movement produced by the muscles that result in an increase in energy expenditure. It includes non-vigorous tasks, such as light walking, and moderate or vigorous tasks, such as brisk walking, jogging, bicycling, playing soccer, and playing basketball (Freeman 2012). Physical activity needs to be of at least a moderate intensity to generate health benefits (Freeman 2012). Regular participation in physical activity can contribute to the enhancement of the physical, psychological and social well-being of young people (Currie 2008). Higher levels of physical activity have been associated with lower blood

pressure, increased fitness and decreased anxiety and depression (Riddoch 1998). The establishment of an active lifestyle in childhood is also considered important in light of evidence that levels of physical activity track from adolescence to adulthood (McMurray 2005), with a consequent reduction in health risks, such as, obesity (Currie 2008). Obesity is a risk factor for many major chronic conditions including coronary heart disease, cerebrovascular disease and obstructive pulmonary disease. The imbalance between food intake and energy expenditure is the primary mechanism for overweight and obesity (Currie 2008).

There are a lot of guides and recommendations about physical activity. For example, the Scottish Government recommends that children and adolescents should participate in physical activity of at least moderate intensity for a minimum of one hour every day (Currie 2008).

Canada has a physical Activity Guide for children and another for youth. As an immediate goal, the Guides recommend that inactive young people increase the amount of time they currently spend being physically active by at least 30 minutes per day and decrease the time they spend watching television, playing computer games and surfing the internet by at least 30 minutes per day. As a long-term goal, young people should strive, over several months, to accumulate a total of at least 90 minutes more physical activity per day the amount of time spent in sedentary activities (Boyce 2008).

According to the National Center for Disease Control and Public Health of Georgia, 65.3% of adolescent boys and 48.8% of adolescent girls are characterized by high physical activity (NCDC 2012). In Georgia, there is a “Be Physically Active” guideline

with significant information about healthy life, physical activity and with the action plan how to start physical activity and how to improve it in a healthy way (Baramidze 2007).

Because of cognitive and social development changes during adolescence, increasingly complex influences on physical activity have been studied, such as, self-efficacy, outcomes expectations, perceived social norms, behavioural attitudes, perceived behavioural control, perceived competence and autonomy (Griebler 2010). Environmental issues have also been addressed as key facilitator of physical activity (Sallis 1998). Within the field of physical activity research, physical environment has been identified as a crucial element of the ecological model. Physical environment can promote health behaviours (Griebler 2010).

Sedentary behaviour is different from physical activity and consists of activities in which there is a little movement or energy expenditure. These activities include watching television, playing video games, using the computer, doing homework, reading and motorized travel (Freeman 2012). Increased time spent engaging in sedentary behaviour, especially screen activities, such as watching television, using the computer, and playing video games, have been linked to several negative health outcomes (Tremblay 2010). Adolescents sedentary behaviours causes other health problems including neck, shoulder and lower back pain, psychological and somatic symptoms, physical and verbal aggression, hostility, cigarette smoking, alcohol use and illicit drug use (Berkey 2008).

One of the recent interests in sedentary behaviours is the relationship between sedentary behaviour and risk for being overweight or obese. Obesity is a risk factor for many of these chronic conditions and there is an increasing prevalence in obesity and type 2 diabetes in adolescents and adults with resulting morbidity and mortality (Smyth 2006).

Among the variety of sedentary behaviours watching television is being acknowledged as the most prevalent sedentary behaviour (Hardy 2006). The negative affects of sedentary behaviours on health are more evident for television watching than for computer use or video games (Griebler 2010). There is evidence that adolescents who spend more time watching television are less likely to engage in preventive behaviours such as seat belt use, adequate sleep, and activities outside of school and more likely to engage in risk behaviours such as sex, delinquency, smoking, alcohol and drugs (Griebler 2010). On the other hand, Sukanuma suggests that Internet use may have a greater negative impact on sleep than TV (Sukanuma 2007). Authors argue that the higher impact of television viewing compared to computer game playing on variety of health compromising behaviours and outcomes might be related to the fact that television viewing is passive whereas adolescents interact actively when using a computer, even when playing violent computer games (Kuntsche 2008).

The HBSC study has acknowledged the importance of parent encouragement of physical activity, parent support of physical activity and the level of physical activity of friends in relation with decrease in sedentary behaviours in adolescence (Griebler 2010).

### **3.5 Risk behaviour**

Youth behaviour often involves taking some type of risk. Some experts regard engagement in risk behaviours as essential to maturation and to the ability of young people to develop meaningful relationships with their peers. Although engaging in health risk behaviours is a natural aspect of development, these behaviours can escalate into

larger problems and lead to a risk-taking lifestyle (Boyce 2008). Substance use is more usually considered risk behaviour among adolescents (Currie 2000).

According to the WHO, tobacco is the leading cause of preventable death in the world (WHO 2007). Main causes of death from smoking are cardio-vascular disease, chronic obstructive pulmonary diseases and lung cancer (Griebler 2010). In addition, smoking has short-term health affects in adolescence, including lung function, decreased physical fitness, increased asthmatic problems, increased coughing, wheezing and shortness of breath (Griebler 2010). In spite of this, unfortunately, adolescents may see positive aspects in smoking, such as relaxation, stress and boredom reduction, to belong to a group or to have contact with a group, to control weight (especially in girls) (Lambert 2002).

Smoking behaviour is undeniably established in adolescence. Most adult smokers began smoking in their teenage years. Early initiation is linked to a greater risk of addiction. Smoking is associated to a range of social and developmental factors including family structure, parent-child communication, parental smoking, school experience, early maturation and local area deprivation (Currie 2008). Smoking prevention in adolescents is very important. It is known that smoking health problems are a function of the duration and the intensity of use. In adolescents the duration of smoking and the number of cigarettes required to establish nicotine addiction is lower than in adults. Once addiction occurs, nicotine dependence is extremely difficult to break (Griebler 2010).

Last few years great attention has been paid to the tobacco use in Georgia. In order to start long-term campaign against tobacco use and to strengthen tobacco use control, Government of Georgia has adopted Decree of Government. In addition, multi-national

strategy and action plan has been developed by a special committee with the purpose to ensure more healthy years for population through reducing tobacco use and smoke. In spite of this, various researches show 50% of 16 years old young people have smoked at least once in life and tobacco is easily accessible for 60% of them (NCDC 2012).

HBSC study uses ecological model to explain the individual behaviour of smoking: the intrapersonal level, the interpersonal level, the institutional level, the community level and public policy. At the intrapersonal level, demographic factors such as age, gender educational level, family structure and socio-economical status of the parents influence smoking behaviour. At the interpersonal level, the direct environment of the adolescent plays a very important role in smoking initiation, experimentation and regular smoking. Parental smoking has been found to be a predictor for smoking experimentation, while peer smoking is more related to regular smoking. At the institutional level, school is an important environment for adolescents. Important characteristics of the school that are related to smoking are school size, school culture, type of school, sex ratio of the students and of the staff, curriculum, school ethos and school policy. At the community level, smoking behaviour is influenced by values, social norms and behaviour of those in the wider environment. And at the policy level tobacco control policy will have an influence on the individual smoking behaviour (Griebler 2010).

Understanding of the alcohol consumption in adolescence is also very important because many begin to use and abuse alcohol during this period (Griebler 2010). Young people's alcohol consumption is influenced by a number of factors, including cultural and familial norms, peer pressure and personal preferences. It is associated with a range of negative



outcomes, including future drinking, drug use, academic problems, unplanned and risky sex, and various physical and emotional problems (Currie 2008).

HBSC study has acknowledged that expectancy theory has a strongest empirical base with respect to a theoretical relationship to adolescent alcohol use (Jones 2001). The basic idea of the theory is the product of expectations. When people expect positive outcomes from behaviour there is tendency to engage in the behaviours. However, expectations do need to be realistic to be influential. Expectations can be based on experience, but even experience can be subject to cognitive interpretations (Leonard 1999).

Alcohol is the most commonly used substance among post-primary school students internationally (Griebler 2010). There is evidence that differences in drinking rates between adolescent boys and girls may have diminished in recent years and is largely dominated by beer (Keyes 2008). According to the studies conducted in Georgia, majority of 15-16 years old young people have drunk alcohol at least once and is positively perceived by them (NCDC 2012).

Cannabis use is the most widely substance among adolescents after alcohol and tobacco, despite the illegality of its use. Factors associated with cannabis use include family structure, parental supervision, drug use by older siblings and truancy (Currie 2008). Frequent early drug use is predictive of dropping out of school, having unsafe sex, involvement in delinquent activity, depression, health problems (intoxication, lethargy, lung damage), and higher odds for use of other drugs (Griebler 2010). Drug abusers tend to be less: self-reliant, confident, likely to plan ahead, sociable and trustworthy (Shedler 1990).

The “European School Project on Alcohol and Other Drug” has been conducted in Georgia. The study found that the prevalence of any kind of drug consumption was 20% among 13-15 years young people in Georgia (Sturua 2010).

A wide range of theories have been applied to adolescent substance use that emphasized the cultural context of drug use, social influence of peers and parents, normative perceptions, adolescent development. Among them I would like to single out social exchange theory. It is one of the first sociological theories to focus on interpersonal exchanges. Homans (1961) defined social exchange as the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two parties. Cost was viewed primarily in terms of alternative activities or opportunities foregone by the actors involved. He explains social behaviour and the forms of social organization produced by social interaction by showing how A’s behaviour reinforces B’s behaviour and how B’s behaviour in contingent fashion reinforces A’s in return. This is the explicit basis for continued social interaction explained at the “sub-institutional” level (Cook 2013).

According to the WHO, with advances in hygiene and the control of infectious diseases injuries have emerged as the largest cause of death in children and youth in the developed countries during the half of the 20<sup>th</sup> century (Griebler 2010). Injury is defined as any physical harm to the body caused typically by an external force. The most common causes of injury are physical forces, and in young people these often happen while playing sports, during motor vehicle collisions, while cycling, or during physical fights (Currie 2012). It can also include poisoning, ingestions and burns. The risk of injuries rises dramatically during adolescence and is recognized as a leading public health issue in populations of young people around the world (Currie 2012). As the greatest single cause

of death and serious morbidity among youth in most developed countries, the study of factors that influence the health of adolescents must include the assessment of injuries, injury circumstances and factors that affect the risk for injury (Griebler 2010). Injuries are not only costly to individuals in terms of pain, or in more severe cases, death, but also in terms of longer-term economic loss at a population level (Currie 2008).

It is estimated that injuries account for 36% of death in children under 15 years (WHO 2006). However, not all injuries result in death. Injuries which are not life threatening may have a short or long term effects on the health of the injured person, often leaving one with a disability (Griebler 2010).

HBSC study uses population health approach to understand the influence of injuries among adolescents. This approach focuses on the interaction between individual and contextual factors that influence the health of population over the life course. The population health approach identifies systematic variations in health outcomes and their patterns of occurrence and applies the resulting knowledge to develop and implement policies and actions to improve health and well-being of those populations (Kindig 2003). Being safe in relationships is a fundamental human right. Every child and youth has the right to be safe and free from involvement in bullying (Boyce 2008). Bullying is a relationship problem. It is a form of aggressive behaviour imposed from a position of power. Young people who bully always have more power than the peers they victimize. Power can be achieved through physical, psychological, social or systemic advantage, or by knowing another's vulnerability and using that knowledge to cause distress. With each repeated bullying incident, the young person who is bullying increases in power and the young person who is being victimized loses power (Boyce 2008).

Victimized young people are at risk for anxiety, depression, and somatic complaints. There is also reason to be concerned for young who perpetrate bullying and harassment: research has shown that they are at risk for long-term problems such as anti-social behaviour and substance use. Victimized youths may also carry the hurt and fear from bullying forward into adult relationships. To prevent these negative long-term outcomes, young peoples' healthy development should be supported (Farrington 1993).

In order to investigate and understand the causes and consequences of violent behaviour and to offer potential routes for prevention HBSC uses public health approach. This approach seeks to improve the health and safety of all individuals by addressing underlying risk factors that increase the likelihood that an individual will become a victim or a perpetrator of violence. Public health approach includes four basic steps: 1. Identifying the magnitude, scope, characteristics and consequences of youth violence; 2. Establish potential causes and correlate of violence including risk and protective factors; 3. Work towards prevention through designing, implementing and evaluating interventions; 4. Implement effective interventions in a wide range of settings (Griebler 2010).

Pepler and Craig have examined bullying from a developmental perspective and argue that this type of aggressive behaviour merits attention because it underlies many problems related to the interpersonal violence. Those students who engage in bullying others may be less interested in school and more likely to engage in health-risk behaviours such as smoking, drug use and excessive drinking (Pepler 2000). Thus, understanding and preventing bullying during adolescence has important implications for the immediate health of young people, and long-term societal health (Griebler 2010).

## **4. Methodology**

### **4.1 Study design**

The specific population selected for sampling are youngsters aged 11, 13, and 15 who attend schools. The desired mean age for the three age groups is 11.5, 13.5 and 15.5. In Georgia, the international HBSC samples correspond to the 6<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup> grades of a secondary public school. The total number of schools in Georgia is 165. Four schools were randomly selected in Tbilisi (Capital of Georgia) for the pilot study with 356 officially registered students.

### **4.2 Participants**

304 (85.4%) students, out of all officially registered (356), had been informed with the Parental Consent and the Information for Students (52 students were not present at school on the presentation day). 243 young people (68.3% out of a total number of registered students and 80% of those informed) participated in the study. Further, 31 students were found to be illegible for the study due to their age irrelevance, and 1 student refused to reveal their age. On the whole, the responses from 211 students were obtained for further analyses.

Apart from this, there were three focus group discussions held at the first school. Six students (three girls and three boys) participated in each focus group discussion. All in all, 18 students were involved with this part. (Appendices 1, 2)

The participation in the survey was voluntary. Parental Consent Forms and Information for Students were required to be completed prior to the study for young people to participate in the survey.

### **4.3 Data collection methods**

The pilot study “The Health Behaviour in Georgian School-aged Children” is a study of mixed methods. The sequential exploratory strategy had been used for the methodological development of the study.



The following three data collection methods were used in the study:

1. Qualitative data collection – focus group discussions with the members of working group to develop the study tools (a questionnaire).
2. Quantitative data collection – developed questionnaires were administered in the classrooms and completed by students.
3. Qualitative data collection – focus group discussions with students concerning the relevance of the study tools (a questionnaire).

### **4.4 Data management methods**

Each process of completing questionnaires was attended by me. All suggestions, recommendations and instructions offered by the International Protocol of the HBSC were followed and supervised by me, as well.

Completed questionnaires were delivered to my office and stored as appropriate. Due to the fact that I was going to work on the data analysis in Bergen, it was impossible to take all completed questionnaires with me, therefore, I needed soft copies of them. As a result, I scanned all the completed questionnaires, stored them in my working computer, and prepared them for the stages to come.

#### **4.5 Data analysis methods**

I collated the data obtained while conducting the focus group discussions with the members of a working group in the form of written reports, so that this would enable the interpretation of the data in order to develop the tools of the study.

The qualitative data obtained from the focus group discussions with the students was recorded with a voice recorder. The recordings were transcribed and stored in the form of written reports, and were prepared for the further analyses. The collated qualitative data was analyzed by coding.

The quantitative data obtained from the self-reported questionnaires had been entered in SPSS Software Programme and analyzed by it.

#### **4.6 Quality assurance methods**

The data collection procedures were conducted under my close supervision. Hence the study takes into consideration every single detail revealed during the data collection, each identified error, discussed later, has a huge importance on and is used to contribute to the methodological development of the study.

The computer control was used to ensure the quality standard of the study. While entering the data in SPSS Software Programme, the data were duplicated. This method excludes data entering errors and contributes to a high quality of the study.

## **5. Ethical consideration**

The WHO claims that “all research involving human participants must be conducted in an ethical manner that respects the dignity, safety and rights of research participants and that recognises the responsibilities of researchers” (WHO 2011). According to the United Nations Convention on the Rights of the Child (UNCRC), children have right to express their views on all matters that affect them and it is expected that efforts should be made to obtain informed consents from children involved in a research project, as well as from their parents or guardians (UNCRC 1989).

I followed the ethical procedures step by step. First of all, I applied for the Norwegian Social Science Data Services (NSD) to obtain a permission to conduct a research. Some time later, I received an official letter with the permission to conduct the study (Appendix 3). In addition, there had been a telephone conversation with the representative of the Ministry of Education and Science of Georgia on the subject of obtaining a formal permission to conduct a survey in public schools of Georgia. According to them, it is at schools’ sole discretion whether to take part in the survey or not, and they have all rights to refuse to participate. Afterwards, I started working on ethical procedures envisioned in the HBSC International Protocol. As a result, a set of documents providing complete and



comprehensive information for each and every participant, their parents and schools was developed.

### **5.1 A Letter to schools (Appendix 4)**

A Letter to Schools was given to the Director of the school. It is a document with a brief outline of the purpose of the study and the involvement on the school's behalf. The Letter highlighted participants' anonymity. Moreover, the Directors were fully informed about the Parental Consent, Information for Students, Instruction for Teachers and the questionnaire. The full package of documentation was given to Directors.

### **5.2 Parental Consent Forms (Appendix 5)**

Students were asked to give a Parental Consent Form to be read and signed by their parents. It is a document with a brief outline on the study, questionnaires and technical issues regarding the study. The Parental Consent Forms also underlined the importance of ensuring each student's confidentiality. Parents were kindly asked to sign the document whether or not they allowed their children to take part in the study.

### **5.3 Children's Consent Forms (Appendix 6)**

Children's Consent Forms were given to students along with the Parental Consent Forms. They were asked to read the consent carefully. The document included age-appropriate information about the study, as well as about the people engaged in the study. The confidentiality was assured in the consent forms, it was explained that nobody but

members of the working group would have any contact with the answers they would provide. They were also informed that participation was voluntary and it was up to them whether to participate or not. It was also pointed out that they did not have to answer questions if they felt reluctant to doing that. They were invited to get in touch with the organizers of the survey in case any questions regarding the study would arise.

#### **5.4 Instruction for teachers (Appendix 7)**

This document represents itself instructions and guidelines to be followed by the teachers who were administering the process of completing the questionnaires in classrooms. This document gave clear explanations on how to behave during the questionnaire completion process. The teachers were also given a script to use to give instructions to students at the time of the survey.

We expressed sincere gratitude to the entire group of participants for their cooperation.

## **6. Findings**

### **6.1 Development of the study tool**

HBSC working group in Georgia has been comprised of very competent people: Dr. George Bakhturidze, the Head of the Health Promotion and Education Foundation in Georgia, a PhD Candidate at the University of Bergen; Kakha Gvinianidze, a Master Candidate at the University of Bergen, a Specialist at the National Center for Disease Control and Prevention; Tamar Manjavidze, a Pediatrician, Specialist of Child

Development, Professor at Georgian State Teaching University and the Leading Specialist at the Ministry of Labour, Health and Social Affairs, as well as Maia Kherkheulidze, a Pediatrician, a Specialist of Child Development, a Professor at Tbilisi State Medical University.

The aim of the discussions with the focus group conducted by the members of the working group was to develop the study tool, a questionnaire. As mentioned above, the HBSC study has an international standard questionnaire that is required to be piloted in every country. The standard approach implemented by the HBSC is to ask the same set of questions in each country, that is to say, a direct translation with minimal adaptations was permitted in cases of absolute necessity for the sake of the linguistic clarity.

At the first stage we discussed the cross-cultural issues, as well as the feasibility to manage the study. The optional set of questions was selected and translated. The translation of the questionnaire items was a critical process within the survey preparation cycle. We tried to follow the requirements and recommendations by the HBSC protocol and translated the questions directly. However, we had to keep in mind the importance of the questions' comprehensibility as they were aimed at children. We gave a good thought to every question we were going to use in the piloting. The final translated questionnaire was acceptable for each member of the working group.

Nonetheless, members of the working group had different opinions regarding the part of the study, the one regarding sexual health, to be more exact.

For more clarity, I would like to briefly describe the concerns over this issue in Georgia. Georgia is a country where “the virginity institute” is still holding strong positions. It is still a taboo-like issue which follows a strict tradition prohibiting a female to have

intimate relations with a male before actually getting married. This prejudice was formulated as a result of Georgia's conservative culture and the Georgian Orthodox Christian faith, which do not allow men and women to have sexual intercourses before marriage. Superficially, it seems as though this belief is being changed as the time progresses, yet, based on the scientific researches a high percentage of Georgian respondents still believe it is unacceptable for a woman to have sex before marriage. There are times when specialists in this field suggest providing children and the youth with information on sexual health. However, these attempts are always faced with negative reactions and strong resistance from Georgians.

This is when I discovered a very interesting fact concerning the same part on sexual health in the survey conducted in 2003 on the issue of the health of 15 to 18-year-old adolescents. The researchers had actually to omit the questions regarding sex health from the questionnaires after the discussions with the focus group represented by the participants and representatives of the Youth Parliament of Georgia (Michaud 2005).

It is also worth mentioning that the HBSC study has acknowledged the sensitivity of this issue and allows member-countries not to include questions of that kind in the questionnaire (Griebler 2010).

According to all above-mentioned, the decision as to whether to keep the questions regarding sexual health in the questionnaire or not was somewhat a challenge. Some members of the working group had strong arguments to keep them in the questionnaire, but I was in doubts. I was realizing the importance and need of that part in the study and in young people's lives on the whole perfectly well, but I was quite sure that even if directors had agreed to have them in the questionnaire (which I doubted again), there

would have been a strong resistance from parents, which, in its turn, would have led to them prohibiting their children to participate in the study.

Following long discussions about and masterminding this topic, I came to a decision to omit the questions on sexual health from the questionnaires temporarily. I opted for not including them in the questionnaires prepared for the first school to be conducted the survey at, thinking that having conducted discussions with the focus group, I would find out if this topic is or is not sensitive for those questioned, and if these types of questions were acceptable for students surveyed. According to my plan, if students felt fine with the questions about sexual health, I would include them in the questionnaires prepared for the rest of the schools.

I introduced my plan to the members of the working group, which was agreed upon.

Nonetheless, we followed the guidelines suggested by the HBSC international network regarding the ethical part, and we prepared A Letter to School, Instructions for Teachers, the Children's Consent Form, and the Parental Consent Form which were also translated into the Georgian language and the suggestions of the HBSC study were considered.

Based on the discussion conducted by the members of the working group with the focus group, the tool was developed, and we were ready to proceed with the study.

## **6.2 Observations within quantitative data collection**

The quantitative data had been collected by means of arrangement of the meeting with the director of a school over a mobile phone call, followed by: the introduction of the study and me at the meeting in person, obtaining permission from the director to participate, meeting a representative of a school, a person who is in charge technical

provision, discussion of the technical issues with the person responsible, meeting with students including a brief presentation about myself and the study again, distribution of the children's and parental consent forms to them, meeting teachers and giving guidelines and instructions.

The questionnaire completing process was conducted as follows: soon after the bell rang I reminded students about the study in a brief manner, asked them to return the completed consent forms, asked the students who participated in the study to take their seats separately from those ones who did not, distributed the questionnaires and they proceeded with their completion.

In the meantime, I observed some very important issues:

- A negative reaction of few students when they saw the questionnaires – addressed later on in the focus group discussions;
- A chaos in the class caused by the questions about a menstrual cycle – also addressed in the focus group discussions;
- A futile approach of teachers towards the study. Surprisingly enough, the teachers were not very supportive. Despite the fact that they had instructions on how to behave, they were aimlessly looking at the questionnaires and one of them even prompted the answer to a question once. I reminded her that it is not the way she should behave and asked her very politely to keep a distance from the questionnaires. The teacher was not happy to hear that but this was of less significance for me than the quality of the study;
- A 13-year-old boy expressed dissatisfaction after he was done with the questionnaire in the last school. The reason of his displeasure was the question

about the body image. He said *'I am the only student who is fat here and it will be very easy to recognize which questionnaire was filled by me'*. In my opinion, it was a very legitimate disapproval;

- It was noticeable that lots of students had the same question about video games. They asked if by video games we also meant iPads, iPods and gadgets of this sort;
- A great number of students who did not participate in the study for different reasons.

The data I have collected during the quantitative data collection stage through the notes taken is as follows.

### **6.3 Development of the study tool with the students**

The next stage of the piloting study of health behaviour among school-aged children was to assess the relevance of the tool to be implemented to Georgian young people, and to understand what students think and feel in connection with the study. The consideration of participants' opinions was one of the main steps for successful development of the study tool. In this regard, the qualitative data had been collected, based on focus group discussions with the participant students, which have been transcribed and supplemented with additional observational data.

Upon completion of administering the questionnaires in the first selected school, the three focus group discussions were conducted there. I conducted discussions with the sixth-, eighth- and tenth-grade students who had completed the questionnaires by that time. The students were informed about the focus groups discussion prior to them. Three boys and

three girls were selected according to their will. An empty classroom was allocated for the discussions.

Every discussion had a more or less similar start. I started with the introduction. I presented myself again briefly, asked some questions about themselves to make them feel comfortable with me. The questions were very simple. For example, *What do you do in your free time? What video games do you like most?* (as it is a very popular topic in Georgia) *Which subject do you like most?* At the beginning of the discussion, the children were constrained, hesitated to talk, had brisk and very succinct answers. In these cases, I was talking about myself, sharing my childhood experiences which were so different from theirs, even because of the existence of computers. Once I had a feeling that students felt free to talk, I tried to concentrate their attention on the study. As a rule, I would present the aim of the focus group discussions, highlight that their honesty was crucial for the study, again, guaranteed confidentiality of their responses, and explained the reason as to why there was a voice recorder. The students usually expressed nothing against their talks being recorded, and then I would start with questions from my semi-structured questionnaire.

The first focus group discussion was conducted with six-grade students. The six 11-year-old children were present. In accordance with the HBSC protocol, the questions about alcohol, illicit drug abuse and sexual health are applicable only to 15-year-old students (Griebler 2010). Therefore, the sensitive topic, I was going to discuss with the participants at the beginning of the study, was not intended for them. The first question I asked them dealt with the tables in the questionnaire. The reason of this question was my feeling that quite a few students found it difficult to understand them in the questionnaire,



but the participants of the group discussion denied it. One of the participants mentioned, that “tables are more comfortable and easily understandable”.

It was obvious that students were doing their best to address the questionnaire critically, to come up with recommendations and suggestions for me; they were trying to give pieces of advice regarding the study. One of the participants said “the question about family structure might be sensitive for those whose parents are divorced”. The answer to my question if it was the way he felt was negative. He explained that his parents live together, yet, he merely suggested question be sensitive to someone. Apparently, one of his classmates’ parents were divorced, who explained that she had two families and she felt fine with that. She denied the fact that the questions about a family structure were sensitive for her.

Another student mentioned that there were “too many questions about tobacco consumption”. In general, there are four, but each of them is a crucial one. Their age might have been the factor that made those questions of no interest for them; they are a bit too young to provide the answers to all of them.

By the end of the discussion, I asked the students to describe the questionnaire in one word. They described it as: easily understandable, pleasant and interesting. Afterwards, I asked if the number of questions was too big. The reason to this question was the feeling I got while the students were completing the questionnaire. When they saw the questionnaires, I heard them say: “*Oh, my God, it is too much*”; “*Can you see how many questions there are?*”; “*Will I ever finish this questionnaire?*”. I had some reservations that these reactions might have an impact on the quality and clarity of the answers provided. One of the students explained clearly: “*When I first saw the questionnaire,*

*there seemed to be too many questions, but as I started reading and answering them, the process turned to be more and more pleasant. It was not hard to concentrate, and the process did not require much work*". The rest of the participants expressed agreement on that. The discussion with 11-year-old children lasted for almost 20 minutes.

The second discussion with the focus group was conducted with the eighth-grade students. The discussion with 13-year-old children was quite similar to the previous one. Almost the same issues have been discussed with them. The sensitive topics were not raised with them, too. However, they came up with one interesting issue that was on my discussion list, anyway, but it was a nice surprise to see their initiative.

I will further describe as to why this issue was raised. Almost a half way through the questionnaire, some boys started to laugh unexpectedly, talk loudly, look at one another's papers, ask one another if they had read the question number 22. In fact, the 22<sup>nd</sup> question dealt with the issue of a menstrual cycle. This sort of reaction was rather awkward and surprising. I could hardly calm them down and bring them back to normal for quite a while. This fact made it necessary to have a word with the focus group on the subject of a menstrual cycle, which was thought to be embarrassing by the boys, and, that the questions related to it should not have been included in questionnaires distributed to young males. This was agreed to by the female participants, as one of them said *'boys' reaction made me feel awkward. I'd rather this was my personal business to feel more comfortable'*. All of them agreed and suggested leaving these sort of questions in the questionnaires intended for girls, and omit them from the boys' ones.

At the end of the discussion, I asked them if they really believed that their confidentiality was guaranteed. The participants have come to realize that they actually did not. I asked

them why they did not trust us taking into consideration the fact that their names were not registered anywhere. They did not have any argument to support their distrust, the answer was: *“I do not know, I am afraid confidentiality cannot be guaranteed completely.”* I became interested if this distrust was expressed just towards me or towards any other researcher they cooperated with. Surprisingly, they happened not to trust anyone, and the worst thing about it is that they cannot support themselves with any arguments. The discussion with them lasted for approximately 30 minutes.

Finally, the last class I had discussion with was the 10<sup>th</sup> grade with 15-year-old students. The first question they offered to discuss was about a menstrual cycle, again. The reaction to the same question exactly the same as in the 8<sup>th</sup> grade and the suggestion how to avoid this reaction in students was the same as well.

During the questionnaire completion process, a lot of students asked me to clarify the meaning of the word ‘cannabis’ which I used. Apparently, they did not know the meaning of the word ‘cannabis’ in Georgian. Another slang term for cannabis is more common to use in Georgia. This was also followed by a discussion of this issue with them. I found out that the questions about consumption of various controlled substances were not sensitive to them in any way. The problem stemmed from mistranslations. They suggested using those jargon terms for more clarity.

By the end of the conversation, I attempted to raise the topic on sexual life. I explained that the original version of the questionnaire contains questions on sexual health that I had not included in the version the students had completed. I asked them what their reaction would have been if they had seen the questions, such as: *“Have you ever had a sexual intercourse?”* or *“What methods do you or your partner use to prevent*

*pregnancy?*”, or *“The last time you had a sexual intercourse, did you or your partner use a condom?”* I was taken by a surprise that the students’ approach to this issue was of a serious nature. In contrast to the menstrual cycle questions, they did not start laughing, talking to each other loudly. On the contrary, their position was negative. They expressed their unwillingness to have or discuss this kind of the questions as they claimed that the *“topic is very private”* and that they did not wish to share.

It was the last class I had focus group discussion with. It was a great pleasure for me to get to know all participants’ opinions and views about the study. Each suggestion of theirs had a high value to me. I could feel their great desire to take it seriously and cooperate with me. They really helped me to achieve the goals I had set prior to the discussions.

## **6.4 Quantitative data**

A statistical analysis of the data gathered by quantitative data collection procedures identified meaningful differences in the prevalence of health and social indicators by gender and age groups.

### **6.4.1 Social context**

#### **6.4.1.1 Parental communication**

The quality of parent-child relationship from adolescents’ point of view is indicated by the perception of ease or difficulty in talking to his/her mother and father about things that represent an importance for them. Since the growth in personal autonomy during the

period of adolescence can result in varying degrees of conflict with parents, it was expected that older students would report on more difficulties in communication with them. The tables 1 and 2 prove the idea that girls and boys communicate more easily with mothers rather than with fathers. The prevalence of easy communication with fathers in girls is significantly lower among the representatives of ages from 11 to 15.

**TABLE 1. HOW EASY IS IT TO TALK TO YOUR MOTHER ABOUT THINGS THAT REALLY BOTHER YOU?**

AGE	GENDER					
	BOY			GIRL		
	VERY EASY/ EASY N (%)	DIFFICULT/VERY DIFFICULT N (%)	MISSING N (%)	VERY EASY/ EASY N (%)	DIFFICULT/VERY DIFFICULT N (%)	MISSING N (%)
11 YEARS OLD	37 (82.2)	3 (6.7)	5 (11.1)	14 (70.0)	3 (15.0)	3 (15.0)
13 YEARS OLD	15 (62.5)	2 (8.3)	7 (29.2)	38 (71.7)	9 (17.0)	6 (11.3)
15 YEARS OLD	26 (76.5)	6 (17.6)	2 (5.9)	25 (73.5)	8 (23.5)	1 (2.9)

**TABLE 2. HOW EASY IS IT TO TALK TO YOUR FATHER ABOUT THINGS THAT REALLY BOTHER YOU?**

AGE	GENDER					
	BOY			GIRL		
	VERY EASY/ EASY N (%)	DIFFICULT/VERY DIFFICULT N (%)	MISSING N (%)	VERY EASY/ EASY N (%)	DIFFICULT/VERY DIFFICULT N (%)	MISSING N (%)
11 YEARS OLD	31 (68.9)	7 (15.6)	7 (15.6)	12 (60.0)	5 (25.0)	3 (15.0)
13 YEARS OLD	17 (70.8)	4 (16.7)	3 (12.5)	29 (54.7)	14 (26.4)	10 (18.9)
15 YEARS OLD	22 (64.7)	8 (23.5)	4 (11.8)	14 (41.2)	16 (47.1)	4 (11.8)

#### 6.4.1.2 Peers

This part of the analysis presents the information on the peer context by asking students about the number of friendships, number of evenings per week they usually spend socializing with their friends, and the frequency communication by means of the electronic data (EMC). The table 3 shows proportions of friends of their own gender. The prevalence of having three or more close friends of the same gender is high in both genders for each age category. The age or gender differences are not significantly obvious. Almost all 13- and 15-year-old boys and 11- and 15-year-old girls reported to have three or more friends of their own gender.

TABLE 3. AT PRESENT, HOW MANY CLOSE FRIENDS OF YOUR OWN GENDER DO YOU HAVE?						
AGE	GENDER					
	BOY			GIRL		
	NONE/ONE/ TWO N (%)	THREE OR MORE N (%)	MISSING N (%)	NONE/ONE/ TWO N (%)	THREE OR MORE N (%)	MISSING N (%)
11 YEARS OLD	2 (4.4)	42 (93.3)	1 (2.2)	0 (0.0)	19 (95.0)	1 (5.0)
13 YEARS OLD	1 (4.2)	23 (95.8)	0 (0.0)	7 (13.2)	45 (84.9)	1 (1.9)
15 YEARS OLD	0 (0.0)	33 (97.1)	1 (2.9)	1 (2.9)	33 (97.1)	0 (0.0)

The table 4 shows that older students are more likely to spend four or more evenings per week socializing with the friends. Among them, 15-year-old boys are characterized to be having a more frequent peer contact in the evenings compared to others.

TABLE 4. HOW MANY EVENINGS PER WEEK DO YOU USUALLY SPEND OUT WITH YOUR FRIENDS?						
AGE	GENDER					
	BOY			GIRL		
	LESS THAN 4 EVENINGS N (%)	4+ EVENINGS N (%)	MISSING N (%)	LESS THAN 4 EVENINGS N (%)	4+ EVENINGS N (%)	MISSING N (%)
11 YEARS OLD	27 (60.0)	15 (33.3)	3 (6.7)	15 (75.0)	5 (25.0)	0 (0.0)
13 YEARS OLD	17 (70.8)	7 (29.2)	0 (0.0)	35 (66.0)	14 (26.4)	4 (7.5)
15 YEARS OLD	14 (41.2)	20 (58.8)	0 (0.0)	18 (52.9)	15 (44.1)	1 (2.9)

In connection with the EMC, the Table 5 depicts significant increase among adolescents aged 11 and 15. The gender difference is also very obvious. Girls, especially aged 13 and 15, are more likely to report electronic media communication with their friends every day.

TABLE 5. HOW OFTEN DO YOU TALK TO YOUR FRIEND(S) ON THE PHONE OR SEND THEM TEXT MESSAGES OR HAVE CONTACT THROUGH THE INTERNET?						
AGE	GENDER					
	BOY			GIRL		
	0 – 6 DAYS N (%)	EVERY DAY N (%)	MISSING N (%)	0 – 6 DAYS N (%)	EVERY DAY N (%)	MISSING N (%)
11 YEARS OLD	26 (57.8)	18 (40.0)	1 (2.2)	10 (50.0)	10 (50.0)	0 (0.0)
13 YEARS OLD	12 (50.0)	12 (50.0)	0 (0.0)	9 (17.0)	43 (81.1)	1 (1.9)
15 YEARS OLD	10 (29.4)	24 (70.6)	0 (0.0)	4 (11.8)	30 (88.2)	0 (0.0)

#### 6.4.1.3 School

Young people's school experiences have been examined by several questions. These questions interrogated their feelings about the school, a perceived school performance, a

perceived school pressure and a perceived classmate support. The table 6 confirms that the percentage of students who reported to like school a lot is not high in any age groups. It is obvious that fewer students reported it at the age of 15 than at the age of 11. The girls are more likely to be fond of schools a lot at all three ages.

AGE	GENDER					
	BOY			GIRL		
	LIKE A LOT	LIKE A BIT OR DON'T LIKE	MISSING	LIKE A LOT	LIKE A BIT OR DON'T LIKE	MISSING
N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
11 YEARS OLD	8 (17.8)	35 (77.8)	2 (4.4)	4 (20.0)	15 (75.0)	1 (5.0)
13 YEARS OLD	2 (8.3)	22 (91.7)	0 (0.0)	9 (17.0)	44 (83.0)	0 (0.0)
15 YEARS OLD	1 (2.9)	32 (94.1)	1 (2.9)	4 (11.8)	30 (88.2)	0 (0.0)

The table 7 indicates the results regarding a perceived academic achievement. It can be seen that the prevalence of perceived good academic achievement decreases with the increase in age. The girls are seen more to report a good academic achievement.

AGE	GENDER					
	BOY			GIRL		
	VERY GOOD/GOOD	AVERAGE/BELOW AVERAGE	MISSING	VERY GOOD/GOOD	AVERAGE/BELOW AVERAGE	MISSING
N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
11 YEARS OLD	26 (57.8)	19 (42.2)	0 (0.0)	14 (70.0)	6 (30.0)	0 (0.0)
13 YEARS OLD	10 (41.7)	14 (58.3)	0 (0.0)	39 (73.6)	12 (22.6)	2 (3.8)
15 YEARS OLD	14 (41.2)	18 (52.9)	2 (5.9)	12 (35.3)	21 (61.8)	1 (2.9)

The table 8 shows analyzed data on a perceived schoolwork pressure. According to it, the 13- and 15-year-old girls tend to report it more. The gender differences change in accordance with age. The boys report it more at the age of 11, but by the age of 15, the girls are more likely to do so.

TABLE 8. HOW PRESSURED DO YOU FEEL BY THE SCHOOLWORK YOU HAVE TO DO?								
AGE	GENDER							
	BOY			GIRL				
	NOT AT ALL/ A LITTLE	SOME/A LOT	MISSING	NOT AT ALL/ A LITTLE	SOME/A LOT	MISSING		
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)		
11 YEARS OLD	11 (24.4)	34 (75.6)	0 (0.0)	9 (45.0)	11 (55.0)	0 (0.0)		
13 YEARS OLD	9 (37.5)	15 (62.5)	0 (0.0)	6 (11.3)	47 (88.7)	0 (0.0)		
15 YEARS OLD	7 (20.6)	25 (73.5)	2 (5.9)	2 (5.9)	32 (94.1)	0 (0.0)		

In connection with the perceived classmate support, the 13-year-old girls and boys report it to a higher extent. The prevalence of perceived classmate support decreases between the ages of 11 and 15. The boys tend to report it more than the girls (Table 9).

TABLE 9. HOW MUCH DO YOU AGREE OR DISAGREE WITH THE STATEMENT: MOST OF THE STUDENTS IN MY CLASS (ES) ARE KIND AND HELPFUL.								
AGE	GENDER							
	BOY			GIRL				
	STRONGLY AGREE/AGREE	DON'T AGREE	MISSING	STRONGLY AGREE/AGREE	DON'T AGREE	MISSING		
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)		
11 YEARS OLD	33 (73.3)	10 (22.2)	2 (4.4)	13 (65.0)	7 (35.0)	0 (0.0)		
13 YEARS OLD	19 (79.2)	3 (12.5)	2 (8.3)	38 (71.7)	14 (26.4)	1 (1.9)		
15 YEARS OLD	22 (64.7)	11 (32.4)	1 (2.9)	21 (61.8)	12 (35.3)	1 (2.9)		

## 6.4.2 Health outcomes

### 6.4.2.1 Positive health

The young people who participated in the survey were asked to comment on their health. The table 10 shows that older girls are more likely to report poorer health conditions. The gender differences are significant at the ages of 13 and 15.

TABLE 10. WOULD YOU SAY YOUR HEALTH IS?								
AGE	GENDER							
	BOY			GIRL				
	EXCELLENT/ GOOD	FAIR/POOR	MISSING	EXCELLENT/ GOOD	FAIR/POOR	MISSING		
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)		
11 YEARS OLD	42 (93.3)	3 (6.7)	0 (0.0)	19 (95.0)	1 (5.0)	0 (0.0)		
13 YEARS OLD	23 (95.8)	0 (0.0)	1 (4.2)	45 (84.9)	7 (13.2)	1 (1.9)		
15 YEARS OLD	33 (97.1)	1 (2.9)	0 (0.0)	30 (88.2)	4 (11.8)	0 (0.0)		



### 6.4.2.2 Medically attended injuries

The table 11 presents data on the percentage of students who experienced at least one injury that required a medical treatment within a year. The prevalence is increased with the increasing age. The gender difference is also obvious, the boys are more likely to report injuries than the girls.

TABLE 11. DURING THE PAST 12 MONTHS, HOW MANY TIMES WERE YOU INJURED AND HAD TO BE TREATED BY A DOCTOR OR NURSE?						
AGE	GENDER					
	BOY			GIRL		
	NOT INJURED	1 TO 4 TIMES OR MORE	MISSING	NOT INJURED	1 TO 4 TIMES OR MORE	MISSING
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
11 YEARS OLD	19 (42.2)	19 (42.2)	7 (15.6)	13 (65.0)	5 (25.0)	2 (10.0)
13 YEARS OLD	7 (29.2)	10 (41.7)	7 (29.2)	38 (71.7)	13 (24.5)	2 (3.8)
15 YEARS OLD	17 (50.0)	16 (47.1)	1 (2.9)	19 (55.9)	13 (38.2)	2 (5.9)

### 6.4.2.3 Body weight

As for the body image, the youngsters were asked about perceived body and weight-reduction behavior. The findings have shown that the prevalence about perceived body decreased with the increasing age. The girls, especially 11-year-olds, are more likely to report that they are too overweight (Table 12).

TABLE 12. DO YOU THINK YOUR BODY IS?						
AGE	GENDER					
	BOY			GIRL		
	TOO THIN/ ABOUT RIGHT	TOO FAT	MISSING	TOO THIN/ ABOUT RIGHT	TOO FAT	MISSING
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
11 YEARS OLD	37 (82.2)	7 (15.6)	1 (2.2)	14 (70.0)	6 (30.0)	0 (0.0)
13 YEARS OLD	21 (87.5)	3 (12.5)	0 (0.0)	42 (79.2)	11 (20.8)	0 (0.0)
15 YEARS OLD	30 (88.2)	4 (11.8)	0 (0.0)	25 (73.5)	9 (26.5)	0 (0.0)

The findings regarding weight-reduction behaviour (Table 13) show that the girls aged 15 are more likely than those aged 11 to report on the weight-reduction behavior. The

prevalence significantly declined in boys aged 11 to 15. The girls aged 15 and the boys aged 11 are more engaged in weight-reduction behaviours.

**TABLE 13. AT PRESENT ARE YOU ON A DIET OR DOING SOMETHING ELSE TO LOSE WEIGHT?**

AGE	GENDER						
	BOY			GIRL			
	NO N (%)	YES N (%)	MISSING N (%)	NO N (%)	YES N (%)	MISSING N (%)	
11 YEARS OLD	25 (55.6)	10 (22.2)	10 (22.2)	16 (80.0)	3 (15.0)	1 (5.0)	
13 YEARS OLD	16 (66.7)	5 (20.8)	3 (12.5)	43 (81.1)	10 (18.9)	0 (0.0)	
15 YEARS OLD	29 (85.3)	3 (8.8)	2 (5.9)	25 (73.5)	7 (20.6)	2 (5.9)	

### 6.4.3 Health behaviours

#### 6.4.3.1 Eating behaviour

In addition, in order to monitor students’ ongoing health practices, their choices of foods have been examined. They were to comment on breakfast, amount of fruit and soft-drink consumption. The table 14 shows that the gender difference is obvious only in 15-year-old girls and boys. The prevalence of daily breakfast consumption is higher in boys with the increased age, and there is no significant difference in the results for the girls surveyed.

**TABLE 14. HOW OFTEN DO YOU USUALLY HAVE BREAKFAST ON SCHOOL DAYS?**

AGE	GENDER					
	BOY			GIRL		
	1 TO 4 DAYS N (%)	EVERY DAY N (%)	MISSING N (%)	1 TO 4 DAYS N (%)	EVERY DAY N (%)	MISSING N (%)
11 YEARS OLD	13 (28.9)	26 (57.8)	6 (13.3)	6 (30.0)	12 (60.0)	2 (10.0)
13 YEARS OLD	9 (37.5)	15 (62.5)	0 (0.0)	19 (35.8)	34 (64.2)	0 (0.0)
15 YEARS OLD	8 (23.5)	25 (73.5)	1 (2.9)	13 (38.2)	21 (61.8)	0 (0.0)

The table 15 suggests that the girls are more likely to report fruit consumption on a regular basis. The higher results of this matter are significantly increased in the boys and

decreased in the girls with increasing age. The girls at the age of 13 are more likely to report it.

AGE	GENDER					
	BOY			GIRL		
	0 TO 6 DAYS A WEEK N (%)	ONCE/MORE THAN ONCE DAILY N (%)	MISSING N (%)	0 TO 6 DAYS A WEEK N (%)	ONCE/MORE THAN ONCE DAILY N (%)	MISSING N (%)
11 YEARS OLD	21 (46.7)	21 (46.7)	3 (6.7)	6 (30.0)	12 (60.0)	2 (10.0)
13 YEARS OLD	12 (50.0)	11 (45.8)	1 (4.2)	18 (34.0)	35 (66.0)	0 (0.0)
15 YEARS OLD	15 (44.1)	18 (52.9)	1 (2.9)	15 (44.1)	17 (50.0)	2 (5.9)

The findings on the amount of daily consumption of soft drinks (Table 16) show that the prevalence is higher among adolescents aged 11 to 15 in both genders. The 15-year-old boys and 13-year-old girls are more likely to report on it.

AGE	GENDER					
	BOY			GIRL		
	0 TO 6 DAYS A WEEK N (%)	ONCE/MORE THAN ONCE DAILY N (%)	MISSING N (%)	0 TO 6 DAYS A WEEK N (%)	ONCE/MORE THAN ONCE DAILY N (%)	MISSING N (%)
11 YEARS OLD	16 (35.6)	24 (53.3)	5 (11.1)	11 (55.0)	8 (40.0)	1 (5.0)
13 YEARS OLD	11 (45.8)	11 (45.8)	2 (8.3)	25 (47.2)	28 (52.8)	0 (0.0)
15 YEARS OLD	12 (35.3)	21 (61.8)	1 (2.9)	17 (50.0)	16 (47.1)	1 (2.9)

#### **6.4.3.2 Oral health**

To indicate on the health of the oral cavities of the young people, they were asked about the frequency of tooth brushing behaviour. The table 17 depicts the prevalence of tooth brushing (more than once a day) is greater among 15-year-old girls and boys than among those aged 11. The gender difference is also significant: more girls brush their teeth more than once a day across all three age groups.

TABLE 17. HOW OFTEN DO YOU BRUSH YOUR TEETH?							
AGE	GENDER						
	BOY			GIRL			
	MORE THAN ONCE A DAY N (%)	ONCE A DAY - NEVER N (%)	MISSING N (%)	MORE THAN ONCE A DAY N (%)	ONCE A DAY - NEVER N (%)	MISSING N (%)	
11 YEARS OLD	24 (53.3)	17 (37.8)	4 (8.9)	12 (60.0)	8 (40.0)	0 (0.0)	
13 YEARS OLD	9 (37.5)	15 (62.5)	0 (0.0)	38 (71.7)	15 (28.3)	0 (0.0)	
15 YEARS OLD	19 (55.9)	15 (44.1)	0 (0.0)	27 (79.4)	7 (20.6)	0 (0.0)	

### 6.4.3.3 Energy expenditure

Young peoples' energy expenditure has been examined by a moderate-to-vigorous physical activity and a sedentary behavior, namely, watching the television. The table 18 shows that the boys are seen to be reporting daily physical activity more in all three ages than in those of the girls'. The prevalence of daily physical activity is increased with increasing age for both genders. The higher frequency of it is found among the 15-year-old boys.

TABLE 18. OVER THE PAST 7 DAYS, HOW MANY DAYS WERE YOU PHYSICALLY ACTIVE FOR A TOTAL OF AT LEAST 60 MINUTES PER DAY?							
AGE	GENDER						
	BOY			GIRL			
	0 - 6 DAYS N (%)	7 DAYS N (%)	MISSING N (%)	0 - 6 DAYS N (%)	7 DAYS N (%)	MISSING N (%)	
11 YEARS OLD	18 (40.0)	18 (40.0)	9 (20.0)	14 (70.0)	4 (20.0)	2 (10.0)	
13 YEARS OLD	12 (50.0)	9 (37.5)	3 (12.5)	37 (69.8)	9 (17.0)	7 (13.2)	
15 YEARS OLD	13 (38.2)	17 (50.0)	4 (11.8)	18 (52.9)	9 (26.5)	7 (20.6)	

The prevalence of television watching for 2 or more hours a day is significantly higher in 15-year-old youngsters than in 11-year-old ones. The boys, aged 13, and the girls, aged 15, show a higher frequency of reporting on this matter (Table 19).

TABLE 19. ABOUT HOW MANY HOURS A DAY DO YOU USUALLY WATCH TELEVISION (INCLUDING DVDS AND VIDEOS) ON WEEKDAYS IN YOUR FREETIME?							
AGE	GENDER						
	BOY			GIRL			
	1 OR LESS HOUR A DAY N (%)	2 OR MORE HOURS A DAY N (%)	MISSING N (%)	1 OR LESS HOUR A DAY N (%)	2 OR MORE HOURS A DAY N (%)	MISSING N (%)	
11 YEARS OLD	17 (37.8)	23 (51.1)	5 (11.1)	9 (45.0)	11 (55.0)	0 (0.0)	
13 YEARS OLD	4 (16.7)	19 (79.2)	1 (4.2)	23 (43.4)	30 (56.6)	0 (0.0)	
15 YEARS OLD	12 (35.3)	21 (61.8)	1 (2.9)	6 (17.6)	27 (79.4)	1 (2.9)	

## 6.4.4 Risk behaviours

### 6.4.4.1 Tobacco use

In relation to smoking, the students were asked about the tobacco initiation and weekly smoking. The data on tobacco initiation are reported and gathered from the 15-year-old ones. The table 20 proves that the boys are more likely to report a younger onset of smoking than the girls.

AGE	GENDER							
	BOY				GIRL			
	NEVER	13 YEARS OR YOUNGER	14 YEARS OR OLDER	MISSING	NEVER	13 YEARS OR YOUNGER	14 YEARS OR OLDER	MISSING
N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
15 YEARS OLD	20 (58.8)	7 (20.6)	7 (20.6)	0 (0.0)	23 (67.6)	4 (11.8)	6 (17.6)	1 (2.9)

The data analysis on weekly smoking (Table 21) is as follows: the prevalence of weekly smoking is increased with increasing age in both genders. There is a higher tendency to report on weekly smoking by the boys rather than by the girls.

AGE	GENDER					
	BOY			GIRL		
	EVERY DAY/ ONCE A WEEK	LESS THAN ONCE A WEEK/DON'T	MISSING	EVERY DAY/ ONCE A WEEK	LESS THAN ONCE A WEEK/DON'T	MISSING
N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
11 YEARS OLD	2 (4.4)	42 (93.3)	1 (2.2)	0 (0.0)	20 (100.0)	0 (0.0)
13 YEARS OLD	2 (8.3)	21 (87.5)	1 (4.2)	1 (1.9)	52 (98.1)	0 (0.0)
15 YEARS OLD	4 (11.8)	30 (88.2)	0 (0.0)	2 (5.9)	32 (94.1)	0 (0.0)

### 6.4.4.2 Alcohol use

To indicate alcohol consumption behavior, the children were asked about weekly alcohol consumption, drunkenness initiation and drunkenness. The table 22 presents findings on weekly drinking. The prevalence of it is increased significantly between the ages of 11 to

15 in boys and girls. It has been revealed that the boys are more likely to report on this fact.

TABLE 22. AT PRESENT, HOW OFTEN DO YOU DRINK ANY ALCOHOLIC BAVERAGE?							
AGE	GENDER						
	BOY			GIRL			
	EVERY DAY/ EVERY WEEK N (%)	EVERY MONTH/ RARELY/ NEVER N (%)	MISSING N (%)	EVERY DAY/ EVERY WEEK N (%)	EVERY MONTH/ RARELY/ NEVER N (%)	MISSING N (%)	
11 YEARS OLD	4 (8.9)	35 (77.8)	6 (13.3)	1 (5.0)	16 (80.0)	3 (15.0)	
13 YEARS OLD	0 (0.0)	16 (66.7)	8 (33.3)	4 (7.5)	42 (79.2)	7 (13.2)	
15 YEARS OLD	9 (26.5)	21 (61.8)	4 (11.8)	5 (14.7)	28 (82.4)	1 (2.9)	

The data on drunkenness initiation are presented for 15-year-olds only. The number of boys and girls who reported on them having been drunk at or before the age of 13 is exactly equal (Table 23).

TABLE 23. AT WHAT AGE DID YOU FIRST GET DRUNK?								
AGE	GENDER							
	BOY				GIRL			
	NEVER N (%)	13 YEARS OR YOUNGER N (%)	14 YEARS OR OLDER N (%)	MISSING N (%)	NEVER N (%)	13 YEARS OR YOUNGER N (%)	14 YEARS OR OLDER N (%)	MISSING N (%)
15 YEARS OLD	11 (32.4)	11 (32.4)	12 (35.3)	0 (0.0)	12 (35.3)	11 (32.4)	11 (32.4)	0 (0.0)

The table 24 shows that the prevalence of drunkenness is increased significantly between the ages of 11 and 15 for both boys and girls. It is obvious, that the boys are more likely to report drunkenness.

TABLE 24. HAVE YOU EVER HAD SO MUCH ALCOHOL THAT YOU WERE REALLY DRUNK?						
AGE	GENDER					
	BOY			GIRL		
	NEVER/ONCE N (%)	TWICE OR MORE N (%)	MISSING N (%)	NEVER/ONCE N (%)	TWICE OR MORE N (%)	MISSING N (%)
11 YEARS OLD	34 (75.6)	9 (20.0)	2 (4.4)	16 (80.0)	2 (10.0)	2 (10.0)
13 YEARS OLD	15 (62.5)	8 (33.3)	1 (4.2)	42 (79.2)	11 (20.8)	0 (0.0)
15 YEARS OLD	13 (38.2)	21 (61.8)	0 (0.0)	23 (67.6)	11 (32.4)	0 (0.0)

#### 6.4.4.3 Cannabis use

In relation to cannabis abuse, the young people were asked to report on how many times they had consumed cannabis in their lifetimes and during the last 30 days. The data are presented for 15-year-olds. The tables 25 and 26 show that the boys only have reported on the cannabis use in the last 30 days and in their lifetimes on the whole.

TABLE 25. HAVE YOU EVER TAKEN CANNABIS IN YOUR LIFE?						
AGE	GENDER					
	BOY			GIRL		
	NEVER N (%)	AT LEAST ONCE N (%)	MISSING N (%)	NEVER N (%)	AT LEAST ONCE N (%)	MISSING N (%)
15 YEARS OLD	25 (73.5)	8 (23.5)	1 (2.9)	34 (100.0)	0 (0.0)	0 (0.0)

TABLE 26. HAVE YOU EVER TAKEN CANNABIS IN THE LAST 30 DAYS?						
AGE	GENDER					
	BOY			GIRL		
	NEVER N (%)	AT LEAST ONCE N (%)	MISSING N (%)	NEVER N (%)	AT LEAST ONCE N (%)	MISSING N (%)
15 YEARS OLD	29 (85.3)	1 (2.9)	4 (11.8)	34 (100.0)	0 (0.0)	0 (0.0)

#### 6.4.4.4 Fighting

The young people were asked about the number of fights they have been involved in the physical fights in the last 12 months. The table 27 shows that the boys are more likely to report being engaged in a physical fight three times or more in a year, and the prevalence of them involved in this activity is significantly higher among them with the increased age.

TABLE 27. DURING THE PAST 12 MONTHS, HOW MANY TIMES WERE YOU IN A PHYSICAL FIGHT?						
AGE	GENDER					
	BOY			GIRL		
	2 TIMES OR LESS N (%)	3 TIMES OR MORE N (%)	MISSING N (%)	2 TIMES OR LESS N (%)	3 TIMES OR MORE N (%)	MISSING N (%)
11 YEARS OLD	29 (64.4)	10 (22.2)	6 (13.3)	17 (85.0)	1 (5.0)	2 (10.0)
13 YEARS OLD	14 (58.3)	6 (25.0)	4 (6.7)	47 (88.7)	2 (3.8)	4 (7.5)
15 YEARS OLD	19 (55.9)	15 (44.1)	0 (0.0)	32 (94.1)	2 (5.9)	0 (0.0)

#### 6.4.4.5 Being bullied and bullying others

The acts of bullying have been assessed by asking students about the frequency of being bullied and bullying others at school. The findings show (Table 28) that the rate of being bullied is decreased in boys and is slightly increased in girls with the increasing age. The girls have been found to report on being bullied at least twice a month more than the boys.

AGE	GENDER					
	BOY			GIRL		
	NEVER/ONCE OR TWICE N (%)	AT LEAST TWICE A MONTH N (%)	MISSING N (%)	NEVER/ONCE OR TWICE N (%)	AT LEAST TWICE A MONTH N (%)	MISSING N (%)
11 YEARS OLD	41 (91.1)	1 (2.2)	3 (6.7)	18 (90.0)	1 (5.0)	1 (5.0)
13 YEARS OLD	18 (75.0)	1 (4.2)	5 (20.8)	50 (94.3)	2 (3.8)	1 (1.9)
15 YEARS OLD	31 (91.2)	0 (0.0)	3 (8.8)	31 (91.2)	2 (5.9)	1 (2.9)

The reported prevalence of bullying others is significantly lower in the ages 11 and 15. The 11-year-old girls and 13-year-old boys are more likely to report bullying others (Table 29).

AGE	GENDER					
	BOY			GIRL		
	NEVER/ONCE OR TWICE N (%)	AT LEAST TWICE A MONTH N (%)	MISSING N (%)	NEVER/ONCE OR TWICE N (%)	AT LEAST TWICE A MONTH N (%)	MISSING N (%)
11 YEARS OLD	39 (86.7)	4 (8.9)	2 (4.4)	16 (80.0)	3 (15.0)	1 (5.0)
13 YEARS OLD	17 (70.8)	4 (16.7)	3 (12.5)	48 (90.6)	4 (7.5)	1 (1.9)
15 YEARS OLD	34 (100.0)	0 (0.0)	0 (0.0)	32 (94.1)	2 (5.9)	0 (0.0)



## 7. Discussion

### 7.1 High Refusal Rate to Participate and Respondents' Sense of Distrust

Appendix 2 shows statistical data of the study: 32.7% of registered students, which represents 20% of informed students, refused participation in the study. This has several reasons: a) parents refused their child's participation; b) students did not desire to participate; c) students forgot to have the signed consents with them; d) students missed the class on the day of questionnaire completion.

Parent and students' objection to participate is derived from the sense of distrust to anonymity. This can be caused by the fact that there is a serious lack of such research experiences. Despite the fact that many governmental/nongovernmental organizations conduct researches with similar methodologies, there have been no clear mechanisms to protect respondents/potential respondents from the risks. The reform in the field of education in Georgia is still taking place. The aim of the reform is to exempt education from the standards established in the Soviet Union and to create modern, stable, and effective system based on human rights. In order for the reform to succeed, taking on the experiences of developed countries is crucial, which includes a set of various studies proven in these countries. This will provide a relevant information exchange and, on the other hand, will establish a sense of trust towards studies which will have an adequate influence quality of the results obtained. Even those who participated in the study expressed their distrust regarding the anonymity. Unfortunately, in the cases like these, Georgian people prefer claiming the things they are expected to rather than what they think. They are afraid of the consequences that can be triggered by them being honest.

They are not sure that their honesty will not cause any problems to them in the future. The fact that parents and students were informed about every little detail regarding the study did not ensure their trust. We tried to make them feel free in making a decision whether to participate or not, and a lot of them simply tried to avoid being connected with the study in any way. The dissatisfaction expressed by the 13-year-old boy regarding the question on body image was also caused by a sense of distrust. He felt insecure and that he could be easily recognised due to his overweight body. People, generally, do not trust most things that are published. They have strong sense of suspicion regarding peculiar details, that they might miss due to certain factors, thus, creating a feeling of fright.

Apart from that, a certain number of students forgot to present the signed consents on the day of questionnaire completion. Due to this reason, they could not take part in the survey. The time I had allocated for them to prepare for the study happened to be not sufficient enough for them. This problem will be of no concern once the HBSC study is implemented in Georgia. In the future, the teachers might have 3-4 days allocated to collect the signed consents from all students and after all consents are returned signed, the study can be carried out.

## **7.2 Georgia and HBSC member countries**

The quantitative data have been analyzed in accordance with the guidance suggested by the HBSC study, namely, based on the international report collated from the 2009/2010 survey. The presented findings focus on demographic and social determinants of young people's health. The statistical analyses identified meaningful differences in the

prevalence of health and social indicators by gender and age groups. It has also observed a few differences in findings among the HBSC member countries (identified by the HBSC study) and Georgia.

In order to achieve the highest standard of health, the health policies have to acknowledge that women and men, owing to their biological differences and their gender roles, have different needs, obstacles and opportunities (WHO 2001). The understanding of age-related developments taking place during the adolescent period, to support and protect young people's health and well-being is vital since the study covers that of 11-, 13- and 15-year-olds, covering the adolescence and the early and middle stages of adolescent development (Currie 2012).

The burden of negative health perceptions and health-compromising behaviours increases with the age. Most young people enter puberty between the ages 11 to 15. The young people, undergoing periods of puberty, seek new experiences and increased autonomy. Parental role is decisive in young children's health. They shape social norms and model behaviours (Currie 2000). They facilitate, determine eating, sleeping, studying habits and leisure times for their children. As children grow older, parents tend to leave room for them to make their own decisions on how to fill their time and with whom to spend it. Parental norms remain influential in preventing health-compromising behaviours in the older age groups (Currie 2012).

Age-related differences may represent interplay between the individual and their experiences in different social contexts. Looking at the age from a longer-term perspective, social contexts, experiences and health behaviors established in childhood or adolescent years may also affect and track into health in adulthood. Adolescents who start

smoking at earlier ages are more likely to continue smoking as adults and fall under the category of health risks such as cardiovascular diseases and cancer. Stressful experiences in school that lead to increased psychosomatic complaints are also likely to persist in adulthood. Preventing health-compromising behaviors from an early age with interventions that aim to provide young people with opportunities for healthy development is, therefore, an important factor (Currie 2012).

The HBSC data reflect gender-specific social relationships shaped by gender socialization, the process by which boys and girls acquire feminine and masculine identities, as well as by societal expectations. Gender socialization leads to gender-specific modes of coping with adolescence that affects the development of health-risk behaviours and social networks. Boys' social networks are based on activities with higher level of physical strain, while girls' networks and friendships are rather based on personal communication. Boys are more likely to report spending more time with their friends, but the gender patterns vary for EMC, with the girls reporting more social interaction. Girls eat fruit and vegetables more often but also tend to avoid having breakfasts, engage in weight-reduction strategies and do not indulge in physical activities sufficiently enough, whereas boys use cannabis and alcohol more often and report physical fights and bullying more frequently. These health-compromising behaviours can be considered gendered, with young people attempting to behave in accordance with dominant norms of masculinity and femininity: heavy drinking among boys and weight control among girls (Currie 2012).

On the whole, the results of the HBSC 2009/2010 survey and the pilot study in Georgian school-aged children coincide, with a few exceptions. The HBSC study observed no

gender patterns regarding perceived classmate support in the member countries, whereas Georgian boys are more likely to report it. In addition, the prevalence of perceived body as overweight is decreased with the age in Georgian students in contrast to the HBSC member countries. Daily breakfast and fruit consumption are also increased with the increasing age, whereas the HBSC study revealed a significantly opposite trend. The involvement in a physical fight is increased in Georgian students with increasing age, whereas the HBSC study observed a decline in this pattern with the increasing age in other member countries.

Moreover, the study observed high number of omitted answers regarding parental communication (talking to mother – 11.9% and talking to father 15.6%), physical activity (16.5%) and alcohol use (14%). When a high percentage of the omitted answers have been observed I connected it to one participant of the focus group discussion who noted that the questions on parental communication could be sensitive for students, especially if their parents are divorced or have a lack of communication with them. Therefore, they would not desire to answer. Partially, this might be a reason of such high amount of missing answers on parental communication. From my point of view, all the high percentages of omitted answers are related to the distrust of students. As discussed earlier, distrust towards anonymity is a serious problematic issue, that caused high amount of respondents' rejection about participation and also high missing answers on a few questions.

### **7.3 Strength and Weaknesses of the Study**

The main strength of the pilot study “Health behavior in Georgian school-aged children” is Georgia’s readiness to become a member of a strong-multidisciplinary international

network. This study has identified challenges and difficulties that can result from the implementation of the study, and has also observed that Georgia is among countries that can become a member of the HBSC study and will be able to successfully conduct it once in every four years.

The strength of the study is that the whole survey was conducted under my close supervision. I observed every part of the survey and reflected my observations here in my thesis. There was nothing that could have been left without attention.

Moreover, I entered the data in SPSS Software Programme twice. This method excludes the data entering errors and contributes to a high quality of the study and refers to the strength of the study, as well.

Generally, I think that working with children is more difficult than with adults. At least, I had a feeling that it is more difficult in Georgia as the level of distrust is rather high here. In my opinion, parental/students' distrust was a strong weakness of the study. Due to this reason, the study has a big number of respondents who were not willing to participate. Apart from this, a sense of distrust is a reason of high missing answers regarding some questions in the quantitative data.

The other weakness of the study is the time limitations. The period between informing children and parents about the study and the day of questionnaire completion was not long enough. Children forgot to return the signed consents and, therefore, they could not participate in the study. This is one of the main reasons of high percentage of students who did not participate in the study.

## 8. Conclusion and recommendations

A methodological development of the HBSC study in Georgia covers the whole of the process. It started by the translation of the questionnaire from the English to Georgian languages, and continued until the survey was conducted in the last participant school. Every member of the working group and every student play a huge role in its development.

The focus group discussions were crucial for this study. Discussions with 15-year-olds confirmed expectations that Georgia is not ready yet to have open discussions on the issues regarding sexual health. Without any sensitive questions in the questionnaire 20% of informed students refused to take part. This fact brings me to an idea that many more students would refuse to participate in the study should the questions regarding sexual health be included.

In addition, the development of the study observed that some issues should be taken into consideration so that a good, quiet atmosphere for children to complete the questionnaire is created. For example, it is better to design separate questionnaires for boys and girls, meaning that questions about topics such as a menstrual cycle should be included in girls' questionnaires only. That will cater for creation of a quieter atmosphere for completing the questionnaires. Furthermore, I would recommend designing questions about video games to be more specific, i.e. by the term video games we imply all sorts of electronic gadgets (including iPads, iPods, Notes and so on) they use for playing. These will decrease the number of questions in the classroom and, therefore, will make the process quieter.

The pilot study has also identified teachers as a problematic constituent of it. The teachers' role in the study is huge. Their behaviours have a great impact on the quality of the study. I would not suggest leaving teachers in the classrooms without supervisors while the study is conducted, at least at the first stages of the study. Moreover, I reckon that a brisk training session would solve the problems of this nature. Mere giving instructions and guidelines for teachers to be followed were not enough for them to fully understand their role in the study and how to follow suggestions given by the instructions. Therefore, their training to a proper depth is essential. They are to come to realize that instructions have been created by highly-experienced specialists and should be followed very carefully.

A sense of distrust has been considered a challenge for several times throughout the study. The implementation of the HBSC study in Georgia might be a wonderful solution to this problem. Conducting the HBSC studies will contribute to creation of the relevant culture for researches in Georgia. The sense of distrust on student and parent's behalf will decrease. The teachers will acknowledge the importance of their roles in the study and will undertake it more seriously. In this regard, implementation of the HBSC study in Georgia is a big step forward.

From my point of view, the pilot study "Health behavior in Georgian school-aged children" was successfully conducted. The aim of the study has been achieved. The research questions have been answered, the study tool has been developed, all issues that were to be taken into consideration to ensure validity and reliability of the study had been outlined, all challenges and problems that can arise as a result of the implementation of

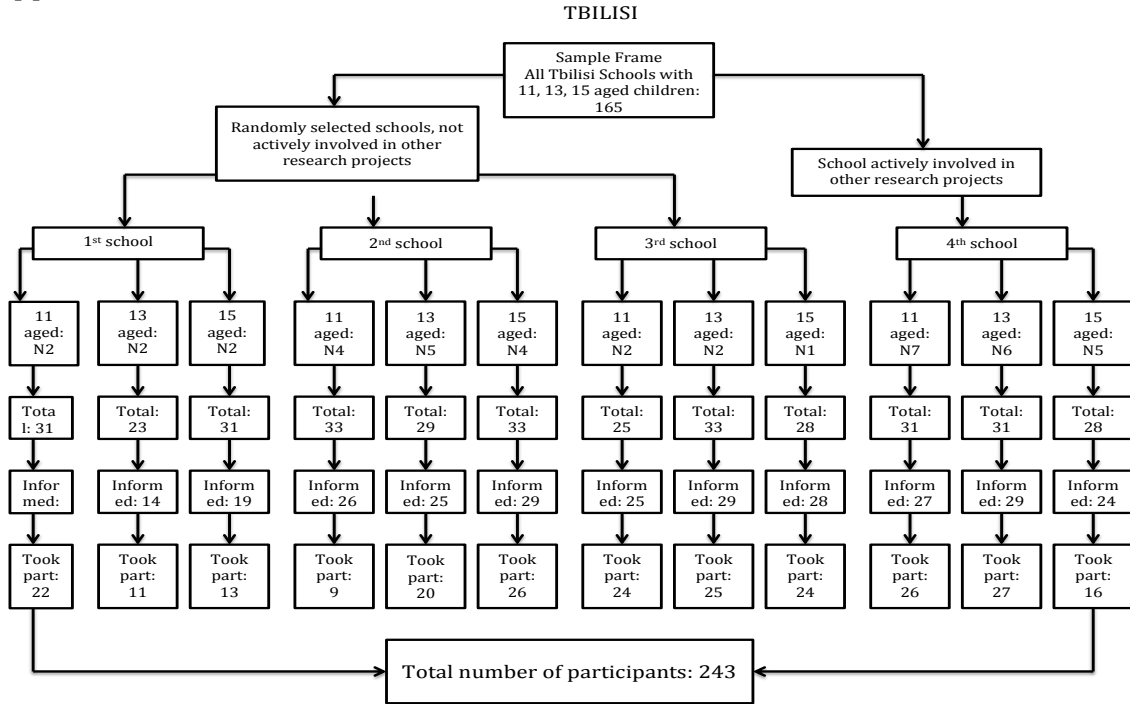


the HBSC study in Georgia have been identified. The recommendations and suggestions have also been elaborated.

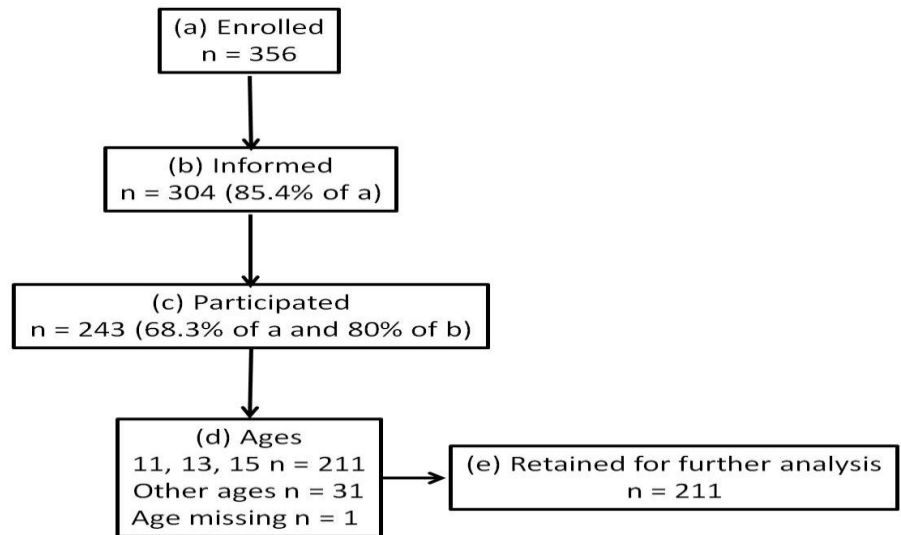
I strongly believe that this study and thesis on the whole highlight the need and importance of the HBSC study implementation in Georgia. Even literature review of this thesis demonstrates that Georgia has a serious lack of the data. Hopefully, the HBSC scientific board and Georgian authorities will come to a solution and will contribute to Georgia's becoming a member of a strong multi-disciplinary international network.

# Appendices

## Appendix 1.



## Appendix 2.



## Appendix 3.

Norsk samfunnsvitenskapelig datatjeneste AS  
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



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Maurice Mittelmark  
HEMIL-senteret  
Universitetet i Bergen  
Christiesgt. 13  
5015 BERGEN

Vår dato: 16.07.2013

Vår ref:34582 / 3 / HIT

Deres dato:

Deres ref:

### TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 21.05.2013. All nødvendig informasjon om prosjektet forelå i sin helhet 11.07.2013. Meldingen gjelder prosjektet:

34582

Behandlingsansvarlig  
Daglig ansvarlig  
Student

*The Pilot Study of Health Behavior in Georgian School-aged Children*  
Universitetet i Bergen, ved institusjonens øverste leder  
Maurice Mittelmark  
Natia Verdzadze

Etter gjennomgang av opplysninger gitt i meldeskjemaet og øvrig dokumentasjon, finner vi at prosjektet ikke medfører meldeplikt eller konsesjonsplikt etter personopplysningslovens §§ 31 og 33.

Dersom prosjektopplegget endres i forhold til de opplysninger som ligger til grunn for vår vurdering, skal prosjektet meldes på nytt. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>.

Vedlagt følger vår begrunnelse for hvorfor prosjektet ikke er meldepliktig.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Hildur Thorarensen

Kontaktperson: Hildur Thorarensen tlf: 55 58 26 54  
Vedlegg: Prosjektvurdering  
Kopi: Natia Verdzadze, Kostava I lane N3, apt. 34  
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## Appendix 4.

### **Letter to schools**

Date

Dear Sir/Madam

#### The pilot study of Health Behaviour in Georgian School-aged Children

Norwegian Social Science Data Service gave a permission to conduct the pilot study of Health Behaviour in Georgian School-aged Children. We are writing to inform you that your school, more specifically three classes in your school with students 11, 13 and 15 years old, has been randomly selected to take part in this survey.

#### The survey

The Health Behaviour in School-aged Children (HBSC) study was among the first international surveys on young people's health in Europe, with fieldwork first being undertaken in 1982 in three countries: Finland, Norway and England. This WHO collaborative cross-national study examines the physical and mental health of children and teenagers from a sociological perspective. It provides a wealth of information and analysis, presenting findings on patterns of health among young people aged 11, 13 and 15 years in 43 countries across the WHO European Region and North America. The purpose of the HBSC study is to gain insight about and increase the understanding of young people's health, well-being, and health behaviours within their social contexts. If you would like more information on the HBSC study please see the website: <http://www.hbsc.org/>

Georgia is not the participant of the survey. The purpose of the pilot study is to develop the methodology of HBSC survey and tensions that will be caused by its inception and to create relevant questionnaire to Georgia.

#### Your school involvement

In September 2013, your school will be sent a package of questionnaires for the classes involved. The questionnaires are anonymous and confidential: neither individual pupils nor schools will be identified at any point in the reporting of data.

Parent/pupil information sheets and consent forms will be provided by us along with the questionnaires. We generally ask parents to sign the form if they would like to withdraw their child and to return this form to the school. Students themselves will be able to choose on the day whether or not they would like to participate and can leave their survey or certain questions blank.

We would be grateful if you could provide the name of a contact person within your school for the survey with whom we will be able to discuss the survey arrangements.

We hope very much that the classes in your school will take part. The participation of all the schools selected is very important in order to achieve the goals.

If you have any questions about the survey please do not hesitate to get in touch with us.

Yours sincerely,

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## Appendix 5.

Date

Dear Parent/Guardian

### The pilot study of Health Behaviour in Georgian School-aged Children

Your child's school is one of the schools randomly selected to take part in the pilot study of Health Behaviour in Georgian School-aged Children. Your son/daughter is one of the pupils in the class that will be completing the survey.

The Health Behaviour in School-aged Children (HBSC) study was among the first international surveys on young people's health in Europe, with fieldwork first being undertaken in 1982 in three countries: Finland, Norway and England. This WHO collaborative cross-national study examines the physical and mental health of children and teenagers from a sociological perspective. It provides a wealth of information and analysis, presenting findings on patterns of health among young people aged 11, 13 and 15 years in 43 countries across the WHO European Region and North America. The purpose of the HBSC study is to gain insight about and increase the understanding of young people's health, well-being, and health behaviours within their social contexts. If you would like more information on the HBSC study please see the website: <http://www.hbsc.org/>

Georgia is not a participant of the survey. The purpose of the pilot study is to develop the methodology of HBSC survey and tensions that will be caused by its inception and to create relevant questionnaire to Georgia.

Pupils will be asked to complete a questionnaire in the classroom. The questionnaires are anonymous and confidential. After it has been completed each pupil seals their questionnaire in an unmarked envelope so that it is not seen by anyone else at school. The questions ask about general health behaviours (such as physical activity, diet and use of tobacco and alcohol) and how young people feel about themselves, their social relationships and life at school.

Your son/daughter might be selected to participate in a focus group meeting also. The focus group will be composed of 5-6 children. The questionnaire for the focus group does not exist in advance. All the challenges and trouble issues rose during survey working team discussion process, questionnaire translation process, and questionnaire filling process by pupils will be discussed with them. Students will be asked what difficulties they met during the questionnaire filling process and if they understood all the questions. I hope very much that your son/daughter will take part in this important study. If you do not wish your son/daughter to take part, please complete and return the tear-off slip below to the school. If you have any questions or concerns about the study, please do not hesitate to contact us.

Yours sincerely,

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I do not wish ----- of ----- to take part in the survey.  
(Name of child) (Insert class, form)

Signature ----- Date -----

## Appendix 6.

### INFORMATION FOR PUPILS

#### What's the study about?

We are trying to develop the methodology of Health Behaviour in School-aged Children Survey and tensions that will be caused by its inception and to create relevant questionnaire to Georgia. The study is about the health and lifestyles of young people.

#### Who is running the study?

It is being run by students of the University of Bergen. About 350 pupils from 4 schools across Georgia are taking part. Your school is one of them.

#### What do I have to do?

We will ask you to fill the questionnaire about general health behaviours (such as physical activity, what you eat, smoking, TV and computer use, and alcohol), your life at school, your relationships, how you feel about yourself and your health. You will also be asked for your height and weight, so it would be good if you could check this before filling in the questionnaire.

For most questions, you will be asked to tick the circle that best fits your answer. If there is a question that you don't want to answer you can leave it blank.

#### Who will see my answers?

The only people who will see your questionnaire will be the people on the research team. Your parents, teachers and friends won't.

#### Will anyone know it's me?

No, your name won't appear anywhere on your questionnaire.

#### Do I have to take part?

Your school has agreed for your class to take part in the study. And we'd like as many young people as possible to take part, since the information you give us is very important. However, you don't have to if you really don't want to.

#### What if I've got some questions?

If you've got any questions about filling in the questionnaire, you can ask the teacher while you are doing it. Just put up your hand, or if you have any general questions about the study, you can contact us.

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[gvinianidze@hotmail.com](mailto:gvinianidze@hotmail.com)

Thank you for helping us with the survey!

## Appendix 7.

### **INSTRUCTIONS FOR TEACHERS**

These instructions and guidelines are for use by the teacher who is administering the questionnaire in the classroom

#### GENERAL REQUIREMENTS

1. On the day of the survey: It is essential that you complete the Class Return Form and return this together with the completed questionnaires.
2. It is important that pupils are not rushed or disturbed while completing the questionnaire, as this will affect the validity of their answers.
3. The questionnaire should be completed under exam conditions, i.e. pupils should not be allowed to talk or be able to see each other's answers.
4. Pupils also should be confident that you, yourself, are not looking at their answers.
5. Pupils themselves should seal the questionnaires in the envelopes provided once they have finished, so please hand these out together with the questionnaires.

#### INSTRUCTING THE PUPILS

The questionnaire includes instructions to pupils on how to complete it. However, it would be good if you could reinforce the key points highlighted in bold overleaf at the beginning of the class.

#### COMPLETING THE QUESTIONNAIRE

In the HBSC experience, the questionnaire takes on average 30 minutes to complete. The quickest will take around 20 minutes and the slowest 40 minutes or more.

Pupils usually enjoy the experience and are keen to answer all the questions. If it is all possible, please give them as long as they need. If time is limited, please ensure that pupils hand in as much as they have completed and tell them that their answers are still useful and important. They should not take away the questionnaire if they don't finish it.

Pupils who do finish early need to be provided with something else to do so that they don't disturb those who are still completing the questionnaire.

#### PROVISION FOR PUPILS WITH SPECIAL NEEDS

If there are pupils with special needs in the class, please use whatever methods are normally used to assist them. Please note, however, that if it is necessary for someone to read the questions out to a pupil then care must be taken, as far as is possible, to allow the pupil's responses to remain private.

#### GIVING HELP

Although the questionnaire is self-explanatory, some pupils may still require help with answering. If this happens, please be aware of the potential risk of biasing a pupil's answer:

1. Only give help if the problem is a straightforward, practical one, such as whether to place a tick or number in a circle, or a simple matter of comprehension.
2. If the request for help would mean interpreting a question or suggesting an answer (particularly on questions involving feelings or options), then the pupil should be encouraged to "answer the question as you understand it yourself" or to "choose the answer that is closest to what is true most of the time". If the pupil is still unable to answer the question, they should enter the "don't know" response (if there is one) or write "I don't understand" next to the question.

**THANK YOU VERY MUCH INDEED FOR YOUR HELP WITH THIS SURVEY**

**Suggested script to be used for instucting pupils at the time of the survey**

**“Our school is taking part in an important pilot study about how young people live. You are going to be asked to fill in a questionnaire, most of which involves ticking the circle the best fits your answer. Nobody at school, including me, or at home will see your answers. To keep them private, don’t write your name anywhere on the questionnaire and once you have completed it, seal it in the envelope provided. The questionnaires then will be sent back to the Survey Study team.**

**Don’t worry if you find some of the questions a little unusual. That’s because the same questions are being used in a number of different countries with different ways of life.**

**Try to asnwer the questions as honestly as you can without spending too much time on each question. Remember, there are no right or wrong answers and you don’t have to answer any questions you don’t want to. Please don’t talk to each other until everyone has finished. It is your own opinion that is important, rather than anyone else’s. When you have finished, please read a book or get on with your own work quietly.”**

Appendix 8.

**QUESTIONNAIRE**

1. Are you a boy or girl?
  - Boy
  - Girl
  
2. What class are you in?
  - Country specific grade (11 years old)
  - Country specific grade (13 years old)
  - Country specific grade (15 years old)

What month were you born?											
Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec

What year were you born?									
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000

<p><u>Father</u></p> <p>Does your father have a job?</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Don’t know</li> <li>• Don’t know or don’t see father</li> </ul> <p>If yes, please say in what place he works (for example: hospital, restaurant, bank)</p>	<p><u>Mother</u></p> <p>Does your mother have a job?</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Don’t know</li> <li>• Don’t know or don’t see mother</li> </ul> <p>If yes, please say in what place she works (for example: hospital, restaurant, bank)</p>
---	--



<hr/> <p>Please, write down exactly what job he does there (for example: teacher, bus driver)</p> <hr/>	<hr/> <p>Please, write down exactly what job she does there (for example: teacher, bus driver)</p> <hr/>
<p>If no, why does your father not have a job?</p> <ul style="list-style-type: none"> <li>• He is sick, or retired, or a student</li> <li>• He is looking for a job</li> <li>• He takes care of others , or is full-time at home</li> <li>• I do not know</li> </ul>	<p>If no, why does your mother not have a job?</p> <ul style="list-style-type: none"> <li>• She is sick, or retired, or a student</li> <li>• She is looking for a job</li> <li>• She takes care of others , or is full-time at home</li> <li>• I do not know</li> </ul>

3. Does your family own a car, van or truck?
  - No
  - Yes, one
  - Yes, two or more
  
4. Do you have your own bedroom for yourself?
  - No
  - Yes
  
5. During the past 12 months, how many times did you travel away on holiday with your family?
  - Not at all
  - Once
  - Twice
  - More than twice
  
6. How many computers do your family own?
  - None
  - One
  - Two
  - More than two
  
7. How well off do you think your family is?
  - Very well off
  - Quite well off
  - Average
  - Not so well of
  - Not at all well off
  
8. Some young people go to school or to bed hungry because there is not enough food at home. How often does it happen to you?
  - Always
  - Often
  - Sometimes
  - Never

9. How well off is the area which you live?
- Not at all well off
  - Not so well off
  - Average
  - Quite well off
  - Very well off

In the area where you live, are there ...?			
	Lots	Some	None
Groups of young people who cause trouble?			
Litter, broken glass or rubbish lying around?			
Run-down houses and buildings?			

10. Were you born in Georgia?
- Yes
  - No

11. In which country was your mother born?
- -----
  - Don't know

12. In which country was your father born?
- -----
  - Don't know

13. What language do you most often speak at home?
- 

All families are different (for example, not everyone lives with both their parents, sometimes people live with just one parent, or they have two homes or live with two families) and we would like to know about yours. Please, answer this first question for the home where you live all or most of the time and tick the people who live there	
<p>Adults</p> <ul style="list-style-type: none"> <li>• Mother</li> <li>• Father</li> <li>• Stepmother (or father's girlfriend)</li> <li>• Stepfather (or mother's boyfriend)</li> <li>• Grandmother</li> <li>• Grandfather</li> <li>• I live in a foster home or children's home</li> <li>• Someone or somewhere else: please write it down -----</li> </ul>	<p>Children</p> <p>Please say how many brothers and sisters live here (including half, step or foster brothers and sisters). Please write in the number or write O (zero) if there are none. Please do not count yourself.</p> <p>How many brothers? -----</p> <p>How many sisters? -----</p>

14. Do you have another home or another family, such as the case when your parents are separated or divorced?
- No
  - Yes

15. If yes, how often do you stay there?

- Half the time
- Regularly but less than half the time
- Sometimes
- Hardly ever

Please tick the family who live there:	
<p>Adults</p> <ul style="list-style-type: none"> <li>• Mother</li> <li>• Father</li> <li>• Stepmother (or father's girlfriend)</li> <li>• Stepfather (or mother's boyfriend)</li> <li>• Grandmother</li> <li>• Grandfather</li> <li>• I live in a foster home or children's home</li> <li>• Someone or somewhere else: please write it down -----</li> </ul>	<p>Children</p> <p>Please say how many brothers and sisters live here (including half, step or foster brothers and sisters). Please write in the number or write O (zero) if there are none. Please do not count yourself.</p> <p>How many brothers? -----</p> <p>How many sisters? -----</p>

How easy is it to talk to the following person about things that really bother you?					
	Very easy	Easy	Difficult	Very difficult	Don't have or don't see this person
father					
stepfather (or mother's boyfriend)					
mother					
stepmother (or father's girlfriend)					
elder brother(s)					
elder sister(s)					
best friend					
friends of the same sex					
friends of the opposite					

How much does your mother really know about ...?			
She knows a lot	She knows a little	She doesn't know	Don't have or don't

			anything	see mother
Who your friends are?				
How you spend your money?				
Where are you after school?				
Where you go at night?				
What you do with your free time?				
How much does your father really know about ...?				
	He knows a lot	He knows a little	He doesn't know anything	Don't have or don't see father
Who your friends are?				
How you spend your money?				
Where are you after school?				
Where you go at night?				
What you do with your free time?				

My mother ...				
	Almost always	Sometimes	Never	Don't have or don't see mother
Helps me as much as I need				
Lets me do the things I like doing				
Is loving				
Understands my problems and worries				
Likes me to make my own decisions				
Tries to control everything I do				
Treats me like a babe				
Makes me feel better when I am upset				
My father ...				
	Almost always	Sometimes	Never	Don't have or don't see father
Helps me as much as I need				
Lets me do the things I like doing				
Is loving				
Understands my problems and worries				
Likes me to make my own decisions				
Tries to control everything I do				
Treats me like a babe				
Makes me feel better when I am upset				

What does your mother do, when you do something that she thinks is wrong?						
	Very often	Often	Sometimes	Seldom	Never	Don't have or don't see mother
My mother doesn't punish me, she takes no notice						
My mother explains to me what I have done wrong and why I am being punished						
My mother tells me that I behaved badly but doesn't punish me						
My mother punishes me immediately without telling me why						

What does your father do, when you do something that he thinks is wrong?						
	Very often	Often	Sometimes	Seldom	Never	Don't have or don't see father
My father doesn't punish me, he takes no notice						
My father explains to me what I have done wrong and why I am being punished						
My father tells me that I behaved badly but doesn't punish me						
My father punishes me immediately without telling me why						

16. How do you feel about school at present?

- I like it a lot
- I like it a bit
- I don't like it very much
- A don't like it at all

17. How pressured do you feel by the schoolwork you have to do?

- Not at all

- A little
- Some
- A lot

18. In your opinion, what does your class teacher(s) think about your school performance compared to your classmates?

- Very good
- Good
- Average
- Below average

Here are some statements about the students in your class. Please show how much you agree or disagree with each one.					
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The students in my class enjoy being together					
Most of the student in my class are kind and helpful					
Other students accept me as I am					

At present, how many close male and female friends do you have?	
Males <ul style="list-style-type: none"> <li>• None</li> <li>• One</li> <li>• Two</li> <li>• Three or more</li> </ul>	Females <ul style="list-style-type: none"> <li>• None</li> <li>• One</li> <li>• Two</li> <li>• Three or more</li> </ul>

19. How many days a week do you usually spend time with friends right after school?

- 0 days
- 1 days
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days

20. How many evenings per week do you usually spend out with your friends?

- 0 days
- 1 days
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days

21. How often do you talk to your friend(s) on the phone or send them text messages or have contact through the internet?
- Rarely or never
  - 1 or 2 days a week
  - 3 or 4 days a week
  - 5 or 6 days a week
  - Every day

**GIRLS ONLY**

22. Have you begun to menstruate?
- No, I have not yet begun to menstruate
  - Yes. I began at the age of ----- years and ----- months
23. Would you say your health is?
- Excellent
  - Good
  - Fair
  - Poor

In the last 6 months: how often have you had the following?					
	About every day	More than once a week	About every week	About every month	Rarely or never
Headache					
Stomach-ache					
Back ache					
Feeling low					
Irritability or bad temper					
Feeling nervous					
Difficulties in getting to sleep					
Feeling dizzy					

24. Do you have a long-term illness, disability, or medical condition (like diabetes, arthritis, allergy or cerebral palsy) that has been diagnosed by a doctor?
- Yes
  - No
25. Do you take medicine for your long-term illness, disability or medical condition?
- I do not have a long-term illness, disability or medical condition
  - Yes
  - No
26. Does your long-term illness, disability or medical condition affect your attendance and participation in school?
- I do not have a long-term illness, disability or medical condition
  - Yes
  - No

Thinking about the last week...					
	Never (not at all)	Seldom (slightly)	Quite often (moderately)	Very often (very)	Always (extremely)
Have you felt fit and well?					
Have you felt full of energy?					
Have you felt sad?					
Have you felt lonely?					
Have you had enough time for yourself?					
Have you been able to do the thing you want to do in your free time?					
Have your parent(s) treated you fairly?					
Have you had fun with your friends?					
Have you got on well at school?					
Have you been able to pay attention?					

27. How often do you brush your teeth?

- More than once a day
- Once a day
- At least once a week but not daily
- Less than once a week
- Never

28. How much do you weight without clothes? -----

29. How tall are you without shoes? -----

30. Do you think your body is?

- Much too thin
- A bit too thin
- About the right size
- A bit too fat
- Much too fat

How often do you usually have breakfast (more than a glass of milk or fruit juice)?	
<b>Weekdays</b> <ul style="list-style-type: none"> <li>• I never have a breakfast during the week</li> <li>• One day</li> <li>• Two days</li> <li>• Three days</li> </ul>	<b>Weekend</b> <ul style="list-style-type: none"> <li>• I never have breakfast during the weekend</li> <li>• I usually have breakfast on only one day the weekend (Saturday or Sunday)</li> <li>• I usually have breakfast on both weekend days</li> </ul>



<ul style="list-style-type: none"> <li>• Four days</li> <li>• Five days</li> </ul>	(Saturday and Sunday)
--	-----------------------

How many times a week do you usually eat or drink ...?							
	Never	Less than once a week	Once a week	2-4 days a week	5-6 days a week	Once a day, every day	Every day, more than once
Fruits							
Vegetables							
sweets (candy or chocolate)							
coke or other soft drinks that contain sugar							

31. At present are you on a diet or doing something else to lose weight?

- No, my weight is fine
- No, but I should lose my weight
- No, because I need to put on weight
- Yes

Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can be done in sports, school activities, playing with friends, or walking to school. Some examples of physical activity are running, brisk walking, rollerblading, biking, dancing, skateboarding, swimming, soccer, basketball, football, and surfing.

For the next question, add up all the time you spent in physical activity each day.

Over the past 7 days, how many days were you physically active for a total of at least 60 minutes per day?

0 days	1 days	2 days	3 days	4 days	5 days	6 days	7 days

32. Outside school hours: how often do you usually exercise in your free time so much that you get out of breath or sweat?

- Every day
- 4 to 6 times a week
- 2 to 3 times a week
- Once a week
- Once a month
- Less than once a month
- Never

33. Outside school hours: how many hours a week do you usually exercise in your free time so much that you get out of breath or sweat?

- None
- About half an hour
- About 1 hour
- About 2 to 3 hours
- About 4 to 6 hours
- About 7 hours or more

About how many hours a day do you usually watch television (including DVDs and videos) in your free time?

Weekdays	Weekend
----------	---------

<ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>	<ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>
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About how many hours a day do you usually play games on a computer or games console in your free time?	
<b>Weekdays</b> <ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>	<b>Weekend</b> <ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>

About how many hours a day do you usually use a computer for chatting on-line, internet, emailing, homework etc. in your free time?	
<b>Weekdays</b> <ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>	<b>Weekend</b> <ul style="list-style-type: none"> <li>• None at all</li> <li>• About half an hour a day</li> <li>• About 1 hour a day</li> <li>• About 2 hours a day</li> <li>• About 3 hours a day</li> <li>• About 4 hours a day</li> <li>• About 5 hours a day</li> <li>• About 6 hours a day</li> <li>• About 7 or more hours a day</li> </ul>

34. Have you ever smoked tobacco? (at least one cigarette, cigar or pipe)

- Yes
- No

35. How often do you smoke tobacco at present?

- Every day
- At least once a week, but not every day
- Less than once a week
- I do not smoke

36. On how many occasions (if any) have you smoked cigarettes in the last 30 days?

- Never
- 1-2 times
- 3-5 times
- 6-9 times

- 10-19 times
- 20-39 times
- 40 or more

37. At what age did you first smoke a cigarette?

- Never
- 11 years old or less
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years or older

At present, how often do you drink ...? Try to include even those times when you only drink a small amount.					
	Every day	Every week	Every month	Rarely	Never
Beer					
Wine					
Spirits/liquor					
National drinks categories					
Any other drink that contains alcohol					

38. Have you ever had so much alcohol that you were really drunk?

- No, never
- Yes, once
- Yes, 2-3 times
- Yes, 4-10 times
- Yes, more than 10 times

39. At what age did you first drink alcohol (more than a small amount)?

- Never
- 11 years old or less
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years or older

40. At what age did you first get drunk?

- Never
- 11 years old or less
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years or older

41. On how many occasions (if any) have you drunk alcohol in the last 30 days?

- Never

- 1-2 times
- 3-5 times
- 6-9 times
- 10-19 times
- 20-39 times
- 40 or more

42. On how many occasions (if any) have you been drunk in the last 30 days?

- Never
- 1-2 times
- 3-5 times
- 6-9 times
- 10-19 times
- 20-39 times
- 40 or more

Have you ever taken cannabis ...?							
	Never	1-2 times	3-5 times	6-9 times	10-19 times	20-39 times	40 or more
In your life							
In the last 12 months							
In the last 30 days							

During the last month, have you taken any medicine or tablets for the following?			
	No	Yes, once	Yes, more than once
Headache			
Stomach-ache			
Difficulties in getting to sleep			
Nervousness			
Something else			

Many young people get hurt or injured from activities such as playing sports or fighting with others at different places such as the street or home. Injuries can include being poisoned or burned. Injuries do not include illnesses such as Measles or the Flu. The following questions are about injuries you may have had during the past 12 months.	
During the past 12 months, how many times were you injured and had to be treated by a doctor or nurse?	
I was not injured in the past 12 months	
1 time	
2 times	
3 times	
4 times or more	

43. During the past 12 months, how many times were you in a physical fight?

- I have not been in a physical fight in the past 12 months
- 1 time
- 2 times
- 3 times
- 4 times or more

Here are some questions about bullying. We say a student is being bullied when another student, or a group of students, say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she does not like or when he or she is deliberately left out of things. But it is not bullying when two students of about

the same strength or power argue or fight.it is also not bullying when a student is teased in a friendly or playful play.	
How often have you been bullied at school in the past couple of months?	
I have not been bullied at school in the past couple months	
It has only happened once or twice	
2 or 3 timed a month	
About once a week	
Several times a week	

44. How often have you taken a part in bullying another student(s) at school in the past couple of months?

- I have not been bullied at school in the past couple months
- It has only happened once or twice
- 2 or 3 timed a month
- About once a week
- Several times a week

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