Health literacy among young people in Sweden

Qualitative study of the school-based health education

Health and Lifestyle, 15 credits

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Summary
The basic components of the health literacy are ability to get access to the health-related information and understand it. For the young people the most appropriate source of information, including about health, is school. Studies on health education showed that there are some problematic issues in the health education in the schools in Sweden which result in non-application of the knowledge by the students.

Thus, the aim of this study was to explore and analyze school-based health education in Sweden from the youth perspective. The purpose of the study was to indicate the best practices of health education within schools in Sweden and reveal the most problematic fields and gaps in it from the point of view of the youth.

Qualitative research was conducted for exploring the research problem. Therefore semi-structured interviews were held with young people aged 18-25 having studied in the schools in Sweden. The data was analyzed within social learning theory with application of thematic analysis methodology. Besides, literature and previous researches review has been conducted as a background study.

In the result of this research it was revealed that although young people are satisfied with the results of the health classes and show trust to the school as a source of information, some information lacks in the health education, e.g. mental health education. Besides, some issues have been noticed as to the school environment around health education which can impede application of the health knowledge.
Table of content

1. Introduction ................................................................................................................................. 5
2. Background and previous studies .............................................................................................. 7
   2.1. Concept of health literacy ...................................................................................................... 7
   2.2. Sexual education ................................................................................................................... 9
   2.3. Mental health ....................................................................................................................... 11
   2.4. Physical activities education ............................................................................................... 11
   2.5. Other topics discussed in the previous researches .............................................................. 12
3. Theoretical framework ................................................................................................................ 13
   3.1. Choice of the theory ............................................................................................................ 13
   3.2. Social learning theory ........................................................................................................ 14
   3.3. Critique of the theory .......................................................................................................... 15
4. Problem definition .................................................................................................................... 17
5. Methods ...................................................................................................................................... 18
   5.1. Design ................................................................................................................................. 18
   5.2. Target group ....................................................................................................................... 18
      5.2.1. Sampling ....................................................................................................................... 19
      5.2.2. Description of the interviewees ..................................................................................... 20
   5.3. Data gathering .................................................................................................................... 21
      5.3.1. Semi-structured interviews: theory ............................................................................... 21
      5.3.2. Semi-structured interviews conducted under current research ................................. 23
   5.4. Data processing and analysis ............................................................................................... 24
      5.4.1. Thematic analysis: theory ............................................................................................ 24
      5.4.2. Thematic analysis conducted under current research ............................................... 25
   5.5. Ethics ................................................................................................................................... 28
   5.6. Background and previous research review .......................................................................... 29
6. Results ....................................................................................................................................... 31
   6.1. Observations ....................................................................................................................... 31
      6.1.1. Practices of provision of health education in schools ................................................ 31
         6.1.1.1. Form and scope of health education .................................................................... 31
         6.1.1.2. Health aspects to which the health education is oriented ................................ 32
         6.1.1.3. Priority of the physical health to the mental health education .......................... 32
      6.1.2. Information lacking in the school-based health education ........................................ 33
         6.1.2.1. Lacking information about physical health .......................................................... 33
         6.1.2.2. Lacking information about unhealthy habits ......................................................... 35
         6.1.2.3. Lack of information about sexual and mental health .......................................... 35
6.1.3. Various sources of health information used by the interviewees .............................. 36
6.1.4. Age of health education in the schools ........................................................................... 38
6.2. Environment ...................................................................................................................... 39
   6.2.1. Health education general perception among interviewees and its “rating” in the school education ........................................................................................................................................... 39
   6.2.2. Perception of the sex education and mental health education .................................... 40
   6.2.3. Role of the school professionals in the health education and healthy behavior .... 41
6.3. Reproduction .................................................................................................................... 43
   6.3.1. Lifestyle of the interviewees .......................................................................................... 43
   6.3.2. Self-education .............................................................................................................. 43
6.4. Cultural differences in the health education .................................................................... 44
7. Discussion and conclusion ................................................................................................... 45
   7.1. Results discussion ......................................................................................................... 45
      7.1.1. Observations .......................................................................................................... 45
      7.1.2. Environment .......................................................................................................... 47
      7.1.3. Reproduction ......................................................................................................... 49
   7.2. Methods and methodology discussion ........................................................................... 50
      7.2.1. Sampling discussion ............................................................................................... 50
      7.2.2. Method discussion .................................................................................................. 50
      7.2.3. Methodology discussion .......................................................................................... 52
   7.3. Conclusion ..................................................................................................................... 54
Reference list ............................................................................................................................ 55
Appendix No. 1 ......................................................................................................................... 59
1. Introduction

One of the main sustainable development goals stated by the United Nations by 2030 is good health and well-being for all at any age (United Nations). Good health and well-being depend on access to various resources, availability of due information about the healthy lifestyle and well-being, and independent decision-making about healthy life choices. These are elements of health literacy of an individual, i.e. ability to get access to, understand and use the information about health.

Current analysis in the sphere of health literacy is based on the adult population, its capability to receive the information, analyze it and apply. Measurements of health literacy are proposed mostly for adults, without any particular focus on children or youth. Although children and adolescents are limited in their individual independent decisions about healthy lifestyle, many health habits, such as diet, exercising, unhealthy habits and others are formed in the youth age, teenage and childhood, and the lifestyle of an adult is pre-determined to a notable extent by his or her lifestyle in childhood and adolescence (Fritzell, 2007). Significant correlation between health literacy level and youth’ health behavior has been noticed (Fleary et al, 2018).

High level of health literacy can be achieved though health education and health promotion which are indicated as one of the World Health Organization’s (hereinafter – the WHO) essential public health functions in all the regions (World Health Organization, 2018). Part of health education and health promotion is made through schools, especially in the Nordic region, in order to enable the young people to make individual choice about health as early as possible. In the Nordic countries promotion of health is one of the goals of the school curricula, and national education plans have similar approach as to providing health education to the children and youth (Kolouh-Söderlund, 2019). In Sweden the national curriculum indicates health promotion and health education as one of the most important aims at all the stages of the school education (Skolverket, 2013). Although school curricula in the Nordic region includes numerous topics related to health education discussed at classes, the statistics shows an increase of health problems related to unhealthy lifestyle including among youth in the Nordic region (Nordic Medico-Statistical Committee, 2017). Surveys conducted among adolescents in Sweden show that in several cases the information about health provided though the school curricula is not appropriate enough for their age and existing practices of the health education among youth could be improved (Ekstrand et al, 2005; Ekstrand et al, 2018). Based on this it can be noticed that there is still room for improvement of the school-based health education since the goals of the national curricula are not implemented in full.

Hence, the aim of this study was to analyze with more details the health education through schools in Sweden and their perception by the young people. The purpose of the study was to receive the information about the best practices of health education in schools and reveal the most controversial
issues. Thus, the research problem was formulated as follows: “What are the most controversial issues in the health education for youth within the school in Sweden?”.
2. Background and previous studies

Current section includes findings under previous researches and statistics studies. Firstly, the introduction to the health literacy concept is made, secondly, the findings on particular topics discussed in the researches on health education within school system in the Nordic region are described. Information found in statistics review in included into the relevant parts of the previous researches description.

2.1. Concept of health literacy

The concept of health literacy emerged in 1970s, and since then there were several debates on what should be considered health literacy and how to measure it, with major debates starting in 1990s (Ringsberg et al, 2018). According to the WHO Health Promotion Glossary 1998 health literacy is defined as cognitive and social abilities determining the motivation and variability of individuals to gain access to, understand and use information in ways which promote and maintain good health (World Health Organization, 1998). Researchers distinguish several types of health literacy. For instance, according to Nutbeam as referenced to by Ringsberg el at, among main types of health literacy functional (e.g. access to health information and its understanding), interactive (e.g. active understanding of health information and its application in different situations), and critical (e.g. critical analysis of the health information from personal and social benefits point of view) can be distinguished (Fleary et al, 2018; Ringsberg et al, 2018). Other types or dimensions of the health literacy are described by researchers, for instance conceptual health literacy, which is described as skills and competencies developed by individuals over the lifetimes to receive, comprehend, evaluate, and use health information and make informed choices to reduce health risks, and increase quality of life, and health literacy as empowerment related to active citizenship position of individuals and their active participation in promoting healthy lifestyle (Kanj & Mitic, 2009).

As it can be noticed, all types of the health literacy are focused on three major elements: 1) getting access to the information about health; 2) understanding the information, including its analyzing and evaluation; and 3) using of the information in the ways which help to maintain good health. In this study the focus is put on the health literacy as ability to get access to and understand the information about health and healthy lifestyle. The issues of choice of an individual to apply the information (i.e. 3rd element of the health literacy), as well as measures for evaluation of literacy of individuals having due knowledge about health but not using it for maintenance of healthy lifestyle are left outside the scope of this study.

The ground of high level of health literacy is wide access to reliable information about health and development of individual skills to evaluate this information and apply it. This includes analysis of sources of the information, their reliability, scope of information provided and its reliability. Numerous sources of information about health are available to the population, starting from medical
institutions and specialized organizations and ending by social media. In this situation, as Hagell (2015) indicates, the schools can be used as a great platform for promoting health among children and young people and increase of their health literacy by providing reliable knowledge. This is beneficial not only from the point of view of future life choices of the youth (including reducing level of health risky behavior) but also it may help to mitigate problems related to the life choices of youth such as teenage pregnancy, unprotected sex and sexually transmitted diseases and other health-related issues (Hagell, 2015). Provision of due information about health in schools and high level of health literacy of young people is beneficial for the economy of the country in general. Based on the studies conducted in the USA, spending money on health education and health promotion in schools helps to save money on health care and curing the diseases resulting from unhealthy lifestyle now and in the future (WHO Expert Committee on Comprehensive School Health Education and Promotion, 1995).

Herewith, as it is underlined in the WHO report on Health promotion in Schools (WHO Expert Committee on Comprehensive School Health Education and Promotion, 1995), the schools can achieve the goals of health promotion in case they can combine the health promotion classes and healthy environment. Hence, the environment in the schools shall be favorable for development of healthy lifestyle habits, e.g. have all services for health support of the students, possibility to discuss the health-related issues, decreased possibilities for promoting unhealthy habits (WHO Expert Committee on Comprehensive School Health Education and Promotion, 1995). Advices related to the health maintenance differ significantly depending on the source. Information about health and healthy habits and lifestyle may be provided by the doctors, health and sports teachers, and this information is likely to be adjusted to the level of physical development of youth and take into consideration the abilities of their body. Herewith, currently there are plenty of media blogs (e.g. Instagram blogs, YouTube pages, etc.) dedicated to the lifestyle and maintenance of good health, which, firstly, do not take into consideration the age of the audience, secondly, do not take into consideration the initial health conditions of the audience, and thirdly are mostly aimed at maintenance of good appearance than really good health. Besides, there are no specific guidelines as to the choice of a “right” media source, i.e. the one which provides verified and reliable information. Widespread of makeover culture makes the promotion of the healthy lifestyle in schools more complicated due to variety of sources of information available to the adolescents and youth. For instance, while school education explains adverse consequences of tobacco use or unprotected sex, numerous commercials and media may expressly or implicitly promote tobacco consumption or non-controlled sexual relations (WHO Expert Committee on Comprehensive School Health Education and Promotion, 1995). Hence, there is a need to analyze not only the scope of information which is provided to the adolescents and young people in the schools, but also the reliability of the school curricula as the
source of information and environment created in the schools to promote healthy lifestyle among students.

It should be noticed that some unhealthy behaviors have decreased in the Nordic countries in general (for instance, the number of smokers is decreasing) but at the same time, some of them are increasing (e.g. number of people suffering from overweight is increasing in all the Nordic region). The level of sexually transmitted infections depends on the infection (e.g. chlamydia is quite widespread in all the Nordic countries, but some other infections levels have decreased) but they can still be found including among young people. Health problems related to the mental health are an issue under consideration in the Nordic countries (Nordic Medico-Statistical Committee, 2017). Accordingly, there may be gaps in health education which influence the level of health literacy among the young people, in particular their due understanding of the health information provided.

Currently, a lot of focus is put on the health education in the Nordic region. Having good knowledge about preconditions for good health and awareness of consequences of several health choices is one of the goals indicated in the national curricula for the upper secondary schools in Sweden (Skolverket, 2013). Herewith, in Sweden, as in other Nordic countries, except for Finland, the health education is not a particular school course, it is integrated in other school courses (Välimaa et al, 2008). Each of such courses covers specific part related to the health and lifestyle to the extent it refers to the such a course. For instance, issues related to puberty, interconnection between the lifestyle, living conditions and health, sexually transmitted diseases and some other issues are integrated into the biology class. Questions of gender and influence of sexuality on the lifestyle are included into the social science classes. Questions of physical activities and their influence on the body are part of the sports classes (Skolverket, 2013). Besides, some aspects such as dental care, diet are left aside or discussed in parts within sport class. Accordingly, there is no consolidated class referred to the health in general, and this may result in non-systematic and odd knowledge on health.

Generally, the research made on the topic related to health education and health literacy among youth shows that the major topics discussed in the literature in Sweden are the following:

2.2. **Sexual education**

Special importance is attributed to particular spheres of health education, for instance, sexual education. The sexual education is taught as integrated part of other courses (e.g. biology) with possible individual lessons and discussions with teachers (Skolverket, 2014) and possible classes of sex education conducted by special organizations (e.g. Ungdomsmottagningen). Herewith, studies among adolescents show that the information provided in the course of sexual education and education related to fertility and preconceptual health (and factors affecting it) is not sufficient (Ekstrand et al, 2005; Ekstrand et al, 2018). For instance, studies of youth’ knowledge on the reproductive health and
sexual education was conducted by Ekstrand et al in the year 2005 (Ekstrand et al, 2005) and in 2018 (different group of researchers) (Ekstrand et al, 2018). In both researches it was indicated by the participants that there was lack of information on due use of contraceptive measures (e.g. hormonal contraceptives), on consequences of unprotected sexual intercourse (e.g. sexually transmitted infections) and other factors which are seemed as normal by the teenagers at the moment and non-influencing the health, but that have adverse consequences for the future health. It was noticed that information perception differed significantly depending on the gender (e.g. boys tend to be less serious when talking about the preconditon health issues). Herewith, regardless of the attitude of the adolescents to communicating the health information, the majority indicated the importance of continuous provision and repeating the information about health, including reproduction health, and consequences of unhealthy lifestyle and bad habits. In particular, it was mentioned that the information on the health education should be repeated to the teenagers several times in different age and within different course, even, maybe in a particular course. The youth also indicated their wish to receive the information about health in more adult age. They stated that it would be better to communicate the information several times, and the provision of information even about reproductive health and behavior can start relatively early due to the fact that late provision of information may result in impossibility of mitigation of adverse consequences of the bad habits the youth conduct by the time of receiving the information (Ekstrand et al, 2005; Ekstrand et al, 2018). Based on the results of the above studies, it can be noticed that the issues underlined by the researches and the students remained the same over the time, i.e. gaps in information on the reproductive health and sex education, gender and cultural stereotypes which influence lifestyle and behavior of the young people continue existing.

Sexual education is considered as one of the most important topics to be discussed with youth within the health education in general. The researches made in this sphere mostly focus on the scope of information provided to the adolescents and youth and also their perception of this information. The studies are usually conducted in the form of focus groups with teenagers and no particular interviews with teachers have been conducted. Besides, other topic under discussion in the course of sexual education analysis is experience of the immigrant students with this part of health education, since in many cases sexual education is not a part of school curricula in the home countries of such students. Hence, the major focus is put not on the scope and source of health literacy as such, e.g. ability of the youth to receive, understand and duly apply the information about sexual healthy behavior and reproductive health, but on the perception of the sexual education as such, and the pre-assumptions about sex and health existing among youth. No study of the major sources of information is conducted hence it is not possible to see whether it is school education which forms particular understanding of the sex-related issues (e.g. several respondents of the abovementioned study of Ekstrand et al (2005).
indicated that use of condoms may be non-persistent) or there are other factors influencing these issues (e.g. magazines, bloggers, other media and elements of makeover culture).

**2.3. Mental health**

One of the most frequent topics discussed in relation to health literacy among young is mental health and prevention of mentally-related diseases. For instance, Melas et al made research on health literacy of adolescents on the issues related to mental health, in particular depression and schizophrenia (Melas et al, 2013). The aim of the study was to check how the adolescents could identify depression or schizophrenia of other person. Based on the results of study less than half of respondents was able to reveal symptoms of either depression or schizophrenia. This result shows that there is a risk of worsening the mental health of people which are suffering from possible mental disorders due to non-timely noticing of the illness and, thus, failure to receive appropriate treatment on the first stages of the disorder. Similar studies were conducted by other group of researchers studying the abilities of high-school students to reveal depression and social anxiety with same results (Coles et al, 2016).

Meanwhile, as found out in the research of Välimaa et al (2008), many symptoms of mental diseases which are revealed in adult age are noticeable in the teenage already, and their timely recognition would help to mitigate their further development. Although the number of mental health problems among young people is increasing in Sweden and no reasons for that can be found (Sommer, 2016), there is still lack of studies of the health literacy of adolescents in the field of mental health from the point of view of receiving and understanding the information. The studies mentioned above focus on application of knowledge in a particular situation, and the application is not effective as it can be seen from the results of the studies. Herewith, no particular analysis of the causes for such low understanding has been found in the course of literature review.

**2.4. Physical activities education**

In the Nordic region important part of health-related information is provided through the sports classes. One of the focuses of the sports education is put on regular physical activity as the key to healthy life and healthy body. Analysis of the syllabus of the sports classes in the Nordic region shows that the health classes are aimed not only at development of knowledge on the physical activities and their necessity but also include such important topics and hygiene and self-control exercises (Annerstedt, 2008).

Herewith, provision of health education within sports classes may have complications. The students relate healthy body to slim body which does not necessary mean that the body is healthy. Studies based on interviews with teachers show that in the majority of cases the students start “cult of body” after sports classes since they see the healthy body as the same as slim body. This may cause eating disorders and exercise addictions which impact the health in a bad way (Webb et al, 2008). Besides, the exercises are deemed to be performed by the students at the edge of their abilities, without due rest, which
makes wrong perception of the physical activities in general, i.e. the students do not really understand the impact of a particular exercise on their body and they are only interested in performing it at the best way and the maximum effort they can put (Webb et al, 2008). Herewith, this may have adverse consequences on the body of the young people, and also at their health in the future: the body can just wear out. The fact that statistically the number of health problems related to lack of physical activities has increased (Nordic Medico-Statistical Committee, 2017) shows that there may be gaps in information or development of skills necessary for healthy sport exercising or that negative experience of exercising due to doing so at the maximum effort may have taken place.

The difference between attitude towards the sports classes was also noticed during several studies. For instance, although all students indicated high interest in the sports classes, the physical education classes were the only class indicated as “male” in the Swedish school system according to the studies since some percentage of the female students either did not attend the class or abstained from participating actively in the class (Quennerstedt, 2008). Female students indicated that in several cases they did not attend these classes due to cultural reasons which makes it impossible to communicate the information about health to them in due scope or develop and check their knowledge.

2.5. Other topics discussed in the previous researches

Other topic which seems to be analyzed in the sphere of health literacy studies is health literacy level in general. The research in the sphere is mostly referred to analysis of possible ways of determining measurements which can be applicable in health literacy measuring, and determining the definition of health literacy and its main characteristics (Lundetrae & Gabrielsen, 2016).

The majority of such articles and researchers address the problem as such (e.g. what is health literacy, how to measure it, etc.) and does not put focus on the problems of the youth’ health literacy (e.g. level of health literacy among young people, factors influencing it, etc.). Although some researchers indicate the necessity of measuring the health literacy among children and teenagers, no particular solution or research is provided in this sphere (Guo et al, 2018). Herewith, several researches were made on possible ways of improving health literacy level among adolescents. For instance, the research made by Catrine Kostenius et al focuses on the ideas of the adolescents themselves on improving the health education, including with use of ICT (Kostenius et al, 2017). One of the ideas of the researchers under this study is that involvement of the studied group may provide new solutions for the problem and, besides, offer the ideas which were not noticeable by the researchers previously.

The researches reviewed within the literature and statistics study were related to the adolescents of different age, from 15 to 19. In several studies the average age of the studied target group was 16 years, and in some studies this age was 18 years. Herewith, no particular research of youth in general was found based on the literature research criteria.
3. Theoretical framework

Health and wellbeing of the population is directly related to the knowledge received by a person on the health options of behavior and lifestyle choices. The lifestyle chosen by an individual affects the general health of such individual. Herewith, one’s lifestyle depends on numerous factors, such as gender, age, education, social status and others (Fritzell, 2007). In the Nordic countries, and in particular, in Sweden the education is provided to everyone regardless of the gender, social status, cultural background and any other factors. The education includes information about health, hence in Sweden everyone might have the same access to the health education and know similar healthy lifestyle options. Herewith, health problems still exist in the Swedish society, which may be related to both, the education on health received by individuals, and to personal motivation and abilities to follow the information received during health education. Since the questions of individual’s motivation and reasons to conduct or not to conduct healthy lifestyle are left out of the scope of this research, there is a need to analyze how the information about health is provided.

Current section includes description of the theoretical framework under which the analysis of the data collected under this research was conducted. Firstly, choice of the theory will be described. Secondly, detailed description of the theory applied to this research will be provided. In conclusion of this section description of the critique to the chosen theory is provided.

3.1. Choice of the theory

Analysis of the health education in schools can be done with application with various theories. Herewith, in order to address the aim of this study and research problem, the applied theory(s) should give a room for analysis of the following parts of the health education: 1) the form in which the knowledge is provided in the schools; 2) the circumstances in which the knowledge is provided; 3) the circumstances in which the knowledge is to be understood; 4) the way and circumstances the knowledge is to be implemented. In such a way all three main aspects of the health literacy would be addressed, and the analysis will focus on the external factors influencing the healthy behavior.

In the course of this research the following theories were also reviewed as to possibility to address all the aspects of health education in schools: health belief model, theory of reasoned action and social learning theory. Besides, gender theory was taken into account. Herewith, after review of the above theories it was concluded that only one theory is appropriate for the research, namely, social learning theory which will be discussed in details below. Other theories were left aside due to their partial inapplicability for addressing the research problem of the current study. In particular, health belief model was rejected for use due to the fact that it focuses mostly on internal factors influencing the health-related behavior, without attention to the external factors, and also refers to prevention of diseases and not to healthy lifestyle and health education (Rosenstock, 1974) which is not the focus of the current research. Theory of reasoned action was rejected for use since it focuses mostly on the
behavior of an individual without paying attention on receiving the knowledge, and also it refers to a large extent to the internal motivation of an individual (Trafimow, 2009) which is out of the scope of the current research. Gender theory was rejected for use due to absence of gender-related differences in reflection upon the school-based health education among the interviewees to current study. Since the aim of this study is related to analysis of the health education of the young people, receiving the information by the young people and its understanding, social learning theory seems to be appropriate theoretical framework to analyze the process of learning of the information on health among young people, and the outcomes of such learning (i.e. conducting healthy / unhealthy lifestyle by the young people). It addresses the questions of receiving / providing the information, circumstances and environment in which the information is provided and received and also pays attention to the circumstances in which the knowledge is to be applied, and in such a way covers all the aspects of the research problem criteria for analysis. Hence, current research is conducted and analyzed within the social learning theory.

3.2. Social learning theory

The social learning theory was initially elaborated by Robert Sears and developed by Alber Bandura in 1960-1970s and was based at the idea that the social development is based on the stimulus-response approach. Even though the approaches of the indicated authors to the social learning theory differ in some parts, generally, the theory focuses on the ways in which the people learn new things and in which such knowledge impacts the behavior of the knowledge recipient (Grusec, 1992).

One of the ideas of the social learning theory is that behavior is a result of continuous reciprocal interaction between the persons’ inner psychological reasons and circumstances in which the behavior occurs (Bandura & Walters, 1977). Basically, the social learning theory assumes that a person after obtaining the knowledge in the form of observation, compares it with the expectancies about environment, consequences and abilities to follow the observation, analyzes incentives / reinforcements to follow the observed behavior, and after that takes the decision whether to follow the observed behavior or not (Rosenstock et al, 1988). In order to analyze the data under this research, attention to the following concepts of the social learning theory were applied:

1) people can learn through observation. The observation may be conducted in the forms of direct experience, i.e. the experience lived by the learner; modeling, i.e. observing a life model of behavior and its consequences; verbal instruction model, i.e. description of the behavior communicated with use of words, either oral or written; symbolic model, i.e. description of the behavior with symbols, for instance fictive characters, through books, media and other sources of communication (Bandura & Walters, 1977). Referring to the health education in schools, it can be noticed that several types of observational learning can take place within school. First of all, the health education is provided to the students in the verbal instruction model at the lectures, in the exercise books and other sources.
Besides, the students receive the information in the symbolic form like brochures, literature and films. Another type of observation which can be found in the school system of the health education is modeling since the students have possibility to observe the behavior of the teachers and analyze their health choices. Last but not least, personal experience can also be indicated as way of learning in school. It should be noticed, that all the ways of observations should be analyzed together because in several cases the observations received through various forms provide contradictory knowledge.

2) Internal mental processes and analysis are the integral part of the learning process. The learner conducts the stimulus control, psychologically and emotionally responds to the observation and to the circumstances / conditions in which the observation has been done and which the response to the stimulus should be made. This is related to expectancies of the observational behavior, and also to the incentives for such behavior (Bandura & Walters, 1977). For instance, if a particular health behavior is not supported by learner’s environment (e.g. conducting healthy lifestyle can be seemed as shameful in the group of teens not conducting healthy lifestyle) the learner is likely to conduct unhealthy lifestyle as well.

3) Observations do not always result in a particular behavior. Based on two previous concepts it can be concluded that result of an observation depends to a great extent on the psychological reasoning of the learner and reinforcement environment (Bandura, 1977; Rosenstock et al, 1988). Hence, in several cases even effective way of provision of information – observation – can fail to result in a particular behavior. In case incentives are not seen as significant by the learner, or the learner does not see him or herself able to follow the observation, the learner will not follow the observed behavior. For instance, if a student receives the information on necessity of exercises, but at the same time he or she cannot perform an exercise, such a person may not follow the observation due to low self-efficacy level.

In order to make the observational model effective in the terms of the desired behavior, the following elements should be taken into account: attention – the observation should draw attention of the learner; retention – the observation should be memorized by the learner; reproduction – ability of the learner to reproduce the observation; and motivation – will of the learner to follow the observed behavior (Rosenstock et al, 1988). In relation to the school health education the most important elements to analyze are attention and motivation since it was indicated by the researchers that in numerous cases young people lack these elements to follow the observed behavior (Grusec, 1992).

3.3. Critique of the theory

It is worth mentioning that perception of the expectations and incentives changes over the time, which was not duly analyzed in the social learning theory (Grusec, 1992). The theory as developed by Bandura does not provide major focus on such aspects as gender-age perception of observations,
development of the human beings, and also pays less attention on the motivation question. These
gaps were further eliminated in the social cognitive theory developed by Bandura on the base of social
learning theory (Grusec, 1992). However, in the framework of this research application of the social
learning theory seems more appropriate due to the fact that current research does not focus on any
issues related to individual motivation of a person to follow or not to follow the healthy lifestyle, and
also does not compare changes in perception of the health education depending on the age. Gender
perspective does not pay significant role either, since, as it was mentioned earlier, no difference in the
perception of the health education was noticed in relation to the gender of the participants. The major
focus of the current research was put on the observations themselves and the environment in which
such observations are made, thus social learning theory, focusing on these elements of the learning
process, will be used for the analysis. These pre-requisites for the change of behavior may help to
reveal strong and weak points of the health education system in the schools in Sweden, and find the
most controversial ones.
4. Problem definition

As it was mentioned before, the outcomes of the health education in the schools in Sweden differ from the aims of provision of such education. Health problems related to unhealthy lifestyle and lack of information about health still preserve among young people. Besides, lack of provision of information is noticeable. These issues are related not only to the ways of providing the information, but also to the environment in which the information is provided.

Based on the above there is a need to analyze the health education of young people as a whole, in particular the scope of information provided to them within schools, and their perception of such education in the terms of understanding, application, sufficiency and reliability of the information provided. Besides, the environment of the health education should be analyzed. The focus should be put on the youth aged 18-25 years, since they take decisions related to their lifestyle independently and they can evaluate their knowledge and their experience of health education and applicability of the information received on objective basis, and at the same time they are still in their early adult age which makes them a particular study group.

Hence, aim of the study is to explore and analyze health education the within the schools in Sweden from the youth perspective. The purpose of the study is to indicate the best practice of provision of the information on health within school education, reveal the most problematic fields and gaps in the health education within the schools in Sweden from the point of view of the youth. Research problem is formulated as follows: “What are the most controversial issues in the health education for youth within the school in Sweden?”.

The method used in this study are semi-structured interviews with young people which is aimed at receiving of information on their perception of the health education within school. Literature and statistics review were used for preliminary understanding on the topic and choosing of the spheres of the major interest for further research. For the purposes of this study “young people” and “youth” means people aged 18-25, unless other is expressly stated herein, and does not include people under or above this age group.
5. Methods

The main aim of science and scientific research is provision of knowledge on the phenomena (Johansson, 2016). In case of analysis of the issues related to the society functioning, knowledge may be seen as understanding of the social reality in which the individuals exist. In order to receive this knowledge, it is needed to refer to the roles individuals play in the society, and also to the institutions through which the society functions (Alvesson & Sköldberg, 2018). Current research is referred to analysis health education in schools, i.e. it is aimed at receiving the knowledge about functioning of such institution as school in the questions related to the health education, and besides about the role of school staff and students in functioning of such an institution. Therefore, the method and methodologies which help to address the main aspects of this knowledge are chosen for the current research. The method of data gathering helps to receive knowledge about both, the institution and the actors, from the actors’ perspective, i.e. from perspective of those who create the social order of health education. The methodology used for analysis of the information helps to group the finding and provide a clear and systematic view of the data.

This section includes description of the methods and methodology applied in gathering and analysis of the data. This section will be structured further as to describe in full details of the research made (i.e. the target group, method and methodology applied). Firstly, design of the research will be summarized. Further, the target group and the sampling process will be described. Following the description of the target group methods will be described both from theory perspective and from the practice of their use under the current research. Methodology will be discussed from both sides as well: theory related to the methodology and practice of its application under the current research. Besides, following the methodology description, ethical consideration of this research will be provided. At the end of this section description of the background and previous research review is described.

5.1. Design

The research is a general overview of existing health education system within schools in Sweden from perspective of young people. The data was collected through different qualitative methods, applied to the target group. The method used for empirical data collection was semi-structured individual interviews with the target group. Empirical data collection was analyzed with application of thematic analysis methodology within social learning theory. Literature and statistics study were used for background and previous research review.

5.2. Target group

This section includes description of the target group of this research. In particular, the target group itself and sampling procedure is explained and details. Further, some description of each interviewee having participated in this study is provided.
5.2.1. Sampling

The target group has been changed in the course of work under the research project. Primary, the target group was planned to be students of schools aged 18-20 years, and additional target group of school professionals was planned to be included. For recruiting participants, upper secondary schools (Sw. gymnasium) in Halmstad were contacted through several means of communication. Emails were sent to the school nurses, sports teachers and school administration. After first round of e-mail sending no school replied. After sending kind reminders several schools refused to participate in the study. Personal visits to the upper secondary schools helped to receive the reply faster, however, all the replies were negative. Announcements on interviewees search among students were posted on the Facebook pages of all upper secondary schools of Halmstad (if any). One of the upper secondary schools planned to communicate this information to the students, however, no post in Facebook groups of the Halmstad upper secondary schools gave any result. Additionally, a special announcement for interviewees recruitments was posted in Ungdomsmottagningen, on the announcement wall. No contact has been found based on this announcement. Accordingly, no interviewees aged 18-20 were found in the search according to the primary target group. The additional target group had to be eliminated in general due to refusal of school professionals to participate in the study and absence of reply from specified organizations.

The target group thus has been changed to the young people aged 18-25 years having studied in schools in Sweden. The target group was selected based on the following criteria: 1) ability to make independent decisions related to their health; 2) ability to reflect on the health education issues and give objective feedbacks based on their life experience; 3) independent consent of students to participate in study; 4) ability of the participants to fluently express their opinion, ideas, experience and other in English.

Interviewees were recruited through goal-oriented snowball sampling. Snowball sampling is a type of non-probability sampling under which the researcher contacts several persons from the target group or related to it acting as gatekeepers, and through them the researcher gets access to the group and the possibility to contact other potential interviewees to participate in the study. The gatekeepers in their turn encourage the other target group members to take part in the research (Taherdoost, 2016; Bryman, 2015).

In the beginning, first potential participants were searched for through various methods. Students of Halmstad University were contacted directly in the library. Herewith, no one of the students contacted in such a way agreed to participate in the interview. Several potential interviewees were found with help of other students or recruited based on the out-of-school events and meetings. These interviewees performed as gatekeepers and helped to find more persons interested in the interview. In total, three participants were recruited through out-of-school events and recommendations from...
the gatekeepers. Further, announcements on the interviewees recruitment were posted in Facebook groups for students advised by other potential participants, and one interviewee was found though this group. Similar announcements were made by lectors of Halmstad University, and one interviewee was found in this way. One participant was found though sending messages to the professionals working with young people and students. After first request around twelve interviewees were found. Herewith, six refused from the interview or cancelled the interview without expressing their refusal but also without replying to further communication with them. It is worth mentioning that among the reasons for refusal were named the following: English language of conducting the interview; nonwilling to be recorded in any way; absence of time for the interview (although they agreed to answer a questionnaire or survey, if it is included in the research). Accordingly, after snowball sampling the total number of interviewees found for the research was six, three of them were students of Halmstad University, and three of them were students of other educational institutions. Among the interviewees two were female and four were male.

5.2.2. Description of the interviewees

Further a short description of the interviewees can be found. For the purposes of description and use in further analysis fictive names were assigned to each interviewee. The description includes the details about the interviewees which are important for the research, other details are omitted.

Mark – 18 years old male student. Mark goes to the gym every week, walks and plays tennis in his free time. Although he didn’t have any special class on health education, he is interested in fitness and other activities, and thus he reads a lot of literature and articles, including scientific ones, preferably those of Swedish authors.

Malin – 23 years old female student. Malin had a special class on health in her high school. Malin does not practice any sports or exercises at permanent basis at the moment, but she walks and cycles a lot. Malin usually receives the information about health from internet, where she chooses verified sources, such as 1177 webpage and similar. Besides, she tries to read more information in the articles.

Max – 24 years old male student. Max studies medicine and thus has a lot of knowledge about health. Max does not practice any sports or exercises at permanent basis at the moment but he was used to do sports earlier. He usually receives the information about health from the internet, where he selects the materials based on his education in medicine, and also from friends who practice sports or work as personal trainers.

Madelene – 24 years old female student. Madele studied in a school with sport education and currently she exercises in the gym, and also she walks and cycles a lot. In order to receive more information about health Madelene prefers to talk to professionals in the health sphere or people she
trusts (e.g. trainers, family members). She avoids such sources as YouTube since they do not provide reliable information, to her opinion.

Magnus – 24 years old male student. Magnus had a special sport class in the school, and currently he actively exercises in the gym. In order to receive more information about health, exercising, mental health and other health-related issues Magnus checks the information in the internet, including YouTube, and there he checks either the materials published by the authors he has already read, or the materials with many likes and good feedbacks in the comments.

Felix – 25 years old male student. Felix attended sports trainings since he was a child and still continues to make exercises in the gym. He usually asks for the advice of his friends about the health issues, or he searches in the internet for the health-related information. In such a case Felix goes for high ratings of the materials (e.g. on YouTube) and positive feedbacks about such materials.

5.3. Data gathering

Empirical data was collected under this research through semi-structured interviews. This section includes the description of semi-structured interviews as follows: firstly, theoretical description of the semi-structured interviews as a method is provided; secondly, description of the interviews made under current research is provided.

5.3.1. Semi-structured interviews: theory

Semi-structured interview is a method of a qualitative studies, which is aimed at collection of data on the research topic from the perspective of the interviewee with minor interruption of the researcher. Such interviews tend to be partially structured and open-ended, with emphasis on the interviewee perspective. For conducting a semi-structured interview rambling is often encouraged, since it helps to reveal the topics and ideas which the interviewee sees as relevant and important for the research topic and, in general, helps to understand how the interviewee sees the problem (Bryman, 2015). Interviews are held based on the interview guide – the list of the questions / topics to be brought to attention during the interview. The order of the questions / topics can be changed depending on the interview flow, additional questions can be asked to develop the ideas expressed by the interviewee (Newcomer et al, 2015). The interviewee is free to provide his or her opinion and experience on the research topic and the researcher can go deeper in some latent issues mentioned by the interviewee though asking additional questions. The researcher can ask the following types of the questions to discover the opinion of the interviewee in full: introducing questions which are used for underlying the topic for discussion; follow-up questions which are used for receiving further explanation of an interviewee’s statement; probing questions which are used for checking the statements received in the course of asking direct questions; specifying questions which are used to specify the introduction or direct question already asked to make it clearer for the interviewee and to direct the response to the
research topic direction; direct questions which are used to confirm the other statements, but not to influence its direction of the interview; indirect questions which are used for confirming previous statements of the interviewee in an indirect way; structuring questions which are used for transfer from one block of questions (topics) to another one; interpreting questions which are used to confirm that understanding of the interviewee’s statement is the same for the interviewee and the interviewer (Bryman, 2015). The possibility of asking questions helps to slightly direct the semi-structured interview, put it into the field of the research, not relying only on the interviewee’s direction, and to clarify statements of the interviewee for their further interpretation by the researcher. All this makes semi-structured interview a flexible method of qualitative research, which allows, on one hand, to respond the direction in which the interviewee goes, and on the other hand, to influence this direction in order to receive the data relevant for the study.

As a research method semi-structured interview has the following advantages:

- It helps to reveal the issues which cannot be observed or studied from other sources. In particular, during the interview the experience, impressions, emotions and opinions of the interviewee can be revealed, which cannot be received through, for instance, analysis of the literature.

- It helps to reconstruct the events and facilitates longitudinal studies. This can be used to analyze the past events and compare them with situation / event at the moment of the interview.

- It provides wider scope of topics for analyzing and discussion, including interrelations between questions and topics. At the same time, it is specific, e.g. it helps to receive variety of data within a specified topic of the interview, without analyzing other issues, which are not related to the study (Bryman, 2015; Longhurst, 2003; Newcomer et al, 2015).

At the same time, semi-structured interview as a research method has some disadvantages, in particular:

- Subjectivity of the data. As indicated above, the qualitative interview gives possibility to receive the insight of what the interviewee sees as the most relevant and important for the topic. This results in the fact that the information received through interview is an opinion of a particular person on the topic. Thus, in order to receive objective data, the researcher needs to analyze different interviews as to coincidence of some opinions / experience, or revealing the issues underlined by several interviewees.

- Reactive effect of the interview. In particular, the interviewees show the sides of the event which are important for them, and from the perspective which may be more favorable for
them. This also affects objectivity of the study due to showing a better side of the interviewee and not-showing the deviant or hidden activities / habits / experiences (Bryman, 2015; Longhurst, 2003; Newcomer et al, 2015).

5.3.2. Semi-structured interviews conducted under current research

Within the course of this research six interviews were conducted. Approximately, each interview took in average 45 minutes with some interviews lasting around 30 minutes and some interviews lasting around one hour.

The interviews were held both in person and via electronic means of communication. Three interviews were held in person, two interviews were held via Skype and one interview via Messenger. All interviews were audio-recorder and fully transcribed. Generally, the transcription included all the said, except for the cases when repeating of the question was needed (e.g. due to bad internet connection), or when meaning of some words used by the researcher required clarification.

The questions / topics for discussion with interviewees were elaborated based on the previous research analysis. First of all, several topics which have been discussed in different studies earlier, were included into the questions / topics list. The purpose of their inclusion was to analyze the best practice of health education on the controversial topics revealed earlier and also reflection of the interviewees on these topics, especially after completion of the school health education. In such a way questions about, for example, sexual and physical education were added to the questions list. Besides, gaps in the previous research were revealed, and respective topics for discussion were added. In such a way, for example, questions of reliability of the school as the source of information for young people were added, as well as questions on the health promotion environment in school. The order of topics for discussed was changed during each particular interview depending on the answers of the participants in order to receive the fullest possible answer. Besides, in several cases the topics were addressed several times in order to double-check opinions of the participants on a particular issue. The basic list of approximate questions to be asked in each interview is provided in the Appendix No. 1 hereto.

Several additional questions and topics for discussion were added after first interviews. For instance, Max indicated that in several cases students were afraid of going for a talk with the school professionals because of the opinion of other students. Hence, respective questions on the attitude of the students in general towards discussion of health issues with professionals were included in subsequent interviews.

Herewith each particular interview included additional topics and numerous specific questions based on the answers of each interviewee. On this criterion the interviews can be divided in three interviewees’ groups, with two interviewees in each (the division does not refer to the order in which the interviews were held). For instance, interviewees in the first group, including, for example Max,
were mostly structured based on the questions included into the Appendix No. 1 hereto. The interviewees were very open and they gave very open and wide answers to the introduction and direct questions, provided numerous examples from their own experience, indicated gaps in the health education in school which they experienced and they felt. Besides, they themselves provided various options for mitigating these gaps. In several moments such interviewees went deep into their reflections on the interview topic, which helped to reveal additional topics for further discussion (e.g. practices of the mental health education, stigmatization of mental and, in some cases, sexual education questions, etc.). Additional questions asked to these interviewees were mostly specifying and referred to clarification of their thoughts. For instance, Max indicated that Internet could be a great source for health education in schools saying at the same time that there are a lot of misinformation in the internet. Thus, he was asked to clarify how could then the internet be used in the way that would allow to provide verified and correct information to the young people, those who do not have any medical education as he has.

In contrast to the first group, the second group of interviewees, including, for example Magnus, gave shorter answers, without any details or explanations, especially in the beginning of the interview. Hence, more follow-up and specifying questions were asked to them, and more questions directly asking for the opinion were made (e.g. questions like “What would you say…?”, “What do you think about…?”, etc.). In the result, the interviews became more detailed with expression of the opinions, more experience and details. Besides, some other themes which were latently expressed in the interviews with the first group, were expressly stated in the interviews with the second one.

The third group of the interviewees, including, for example, Mark, did not require that many additional questions. Their answers included the details and the opinion and experience, which made unnecessarily to ask numerous additional questions. Besides, these interviewees discussed their view on how the health education in the schools can be improved and made a summary of their reflections in the end of the interview, which helped to reveal the topics of their major interest and concern.

5.4. Data processing and analysis

This section includes description of the methodology applied for analysis of the data under current research – thematic analysis. Firstly, theoretical description of the thematic analysis as a methodology is provided and further description of the analysis made under current research can be found.

5.4.1. Thematic analysis: theory

The methodology used for analysis of the empirical data is thematic analysis. Thematic analysis as a methodology focuses on revealing the themes/ patterns in the qualitative data. It allows to pay attention not only on the themes pre-determined by the researcher, but also on the themes, including latent ones, emerged from the data itself. Themes are chosen to the extent they describe the
phenomena being studied and help to analyze such a phenomenon (Vaismoradi et al, 2016). Thus, thematic analysis includes summarizing the qualitative data by themes in order to describe the research problem, and also its interpretation and deep analysis (since there is a need to reveal the themes and reason why they are important for the research). Thematic analysis is a qualitative research methodology which allows great flexibility of the research and at the same time allows great variety and detailed overview of the data.

The process of thematic analysis is held as follows: 1) data collection when the researcher collects the data and information to be analyzed further; 2) getting familiar with the data when the researcher reads and re-reads the data in order to know its content and be able to analyze it further; 3) generating initial codes when the researcher through open coding indicates the categories found in the data; 4) revealing the themes when the researcher preliminary indicates the themes which were underlined in the data, both expressed and latent ones; 5) reviewing the themes when the researcher reviews all the data in order to double check if the themes revealed at the step 4 are presented in all the data; 6) defining and naming the themes when the researcher makes a themes map, and explains what themes were chosen, how they are interrelated, how the interrelation can be explained; 7) preparing the report when the researcher describes his / her findings (Maguire & Delahunt, 2017; Braun & Clarke, 2006).

Thematic analysis has numerous advantages. For instance, it is flexible and can be modified depending on the aim of the study, it may be used in inductive approach. It gives possibility for analysis of different perspectives, highlighting differences and similarities between the participants’ opinions. It can be used for analysis of large data due to being structured type of analysis. At the same time thematic analysis has some disadvantages as well. For instance, no analysis of language can be used in the thematic analysis. Besides, application of the thematic analysis may result in inconsistency and mess in data coding and categorizing (Maguire & Delahunt, 2017; Braun & Clarke, 2006).

5.4.2. Thematic analysis conducted under current research

In the current research the disadvantages of the thematic analysis did not influence the final result due to adequate amount of data and unnecessity of using the language analysis. Description of the thematic analysis is provided step-by-step, based on the thematic analysis structure proposed by Braun & Clarke (Braun & Clarke, 2006):

1) Data collection. Six interviews were held for data collection. Some large themes were expressly underlined by the interviewees and thus were revealed in the data collection process. All the interviews were audio-recorded and further fully transcribed, without omission of any essential parts of the conversation.

2) Getting familiar with the data. All the interviews were conducted and transcribed by the researcher. This allowed the researcher to get familiar with the data from the very beginning and make
3) Generating initial codes. Some initial codes were indicated in the process of transcribing the interviews and were developed further in the process of re-reading the interviews. The coding table was made, including codes column, and then column for citation from each interview. The codes list was made based on each interview as follows: first interview was re-read, and the codes assigned to specific parts of the interview were included into the table. For each of the codes respective citation from the interview was added as a ground for coding. The citations included were quite broad, and they were grouped from different parts of the interview. The interview was re-read in the printed-out form with initial notes being the ground for the code, and then it was re-read in the electronic form for providing the citation and review of the codes. After that all other interviews were re-read in the same way. For the codes which were the same with the first interview, respective citation of participant was included into the column. In case a new code emerged from an interview, such a code was included into the table with citation of the respective interviewee. In case an interview did not have the statements for a particular code, the table was left blank for such a code. Based on this 26 initial codes were elaborated. These codes were revised, group with the similar codes (e.g. codes as “teacher as an example”, “teachers’ involvement in the health of students”, and “education for teachers” were grouped together). The codes which were mentioned in one or two interviews, were not included into the second step of coding.

4) Revealing themes. Under analysis of the data, several themes were underlined. First of all, the themes were divided into two groups: the themes emerged from the interview question and themes emerged from the interview itself. The first group, themes emerged from the interview question, included two themes, in particular “Lifestyle of the interviewees” and “Cultural differences in health education”. These themes were discussed with the interviews only based on the interview questions, and were not mentioned by any of the participants in relation to any other issues. The second group of themes, themes emerged from the interview itself, included themes which were expressed by the interviewees either expressly or latently, and which were reflected upon in the course of the interview. It is worth mentioning that all these themes were looked through, and it was noticed that they correspond to the parts of the learning process under the social learning theory. Based on the social learning approach and WHO report on Health promotion in Schools (WHO Expert Committee on Comprehensive School Health Education and Promotion, 1995), such themes were grouped in four groups relating to the parts of the learning process in accordance with the social learning theory. In particular, the themes were divided in the following groups: 1) Observations. This group included the themes related to the process of receiving the knowledge about health, such as scope of information...
provided, aim of provision of information, timeframes of provision of information, and some others. In total, this group included nine themes. 2) Environment. This group included themes related to the environment in which the students receive and apply the information about health. For instance, the Environment group included such themes as opportunities to receive support, teachers’ role in the healthy lifestyle promotion, and some others. In total the group included nine themes. These themes were grouped in a particular group due to their influence on the attitude of the students towards conducting healthy lifestyle, which may finally result in reproduction or non-reproduction of the observation model behavior. 3) Motivation and retention. This group included the themes related to value which the students assign to the observations on the health. The group included only two themes: influence of the environment and interconnection between physical and mental health. These themes were initially included into a particular group due to the reason that they refer mostly to the internal reasons of the participants to follow or not to follow the observation model, and are conditioned to some extent to the Environment themes. 4) Reproduction. This group included four themes referring to the lifestyle of the interviewees, e.g. self-education on health, habits of the interviewees and other. This group was formed based on the reflection of the interviewees on the lifestyle they conduct (in the course of the interview, without specific question for that). Themes which are not referred to the research problem were excluded for the analysis.

5) Reviewing the themes. The themes revealed at first based on the initial coding, were reviewed group by group. The only theme emerging from the interview question was “Cultural differences in health education”. This theme was not analyzed in details and included a brief overview of the participants’ experience. The theme “Lifestyle of the interviewees” moved to the group of Reproduction themes since it illustrates the result of the leaning. Further, the themes emerging from the interview itself were analyzed. The Observation group after a reviewing included four themes, some of which included several sub-themes. The sub-themes were left in the grouping for the purposes of further description of each of the themes. The Environment group included three themes, without sub-themes. The Motivation group of themes was included into the Environment group of themes. Reproduction group of themes included two themes, without any sub-themes.

6) Defining the themes and their naming. Final grouping of the themes was reviewed one more time, and the names for all the themes were assigned (at the previous step several sub-themes were briefly described, without naming). In such a way the structure of all the themes discussed within interviews was made.

7) Writing the report. The findings on each of the themes were explained for each of theme and sub-theme. The results were written in accordance with the themes structure, in particular, each group of themes was explained theme by theme with final conclusions from the point of view of the social learning theory and health literacy perspective. Each of the themes was discussed by sub-themes,
where applicable. Further, based on the conclusions for each theme, interrelations between each of
the groups were explained from the point of view of the social leaning theory. The results of the
analysis can be found in section “Results” hereof. Within analysis several problematic issues in the
health education in schools in Sweden were revealed, together with some concerns on the methods
chosen and data collected. These problematic issues are described in the section “Discussion” hereof.

5.5. Ethics

This research complies with the requirements of SATORI Ethics Assessment Framework in relation
to the study in humanities field (SATORI, 2019) and CODEX Professional Ethics guidelines
(CODEX, 2019). This research is an original study fully conducted and written by the researcher. In
case of use of previous research data, opinions of other persons that researcher, respective reference
to the source of such information and / or opinion is made. The data collected within this research is
original.

The interviewees having participated in the research did not need to receive any permit to participate
in the study from their parents, guardians or other persons due to being legally capable to participate
in the research. No questions of a sensitive character were discussed in the course of the interviews.

Prior to holding the interviews all participants of the research were informed on the aim of the
research, as well as on following with regard to participation in the research:

- The interviews were voluntary.
- The interviews were anonymous. The only person having access to any of their identification
data is the researcher.
- All the information which can be used for identification of the participants is confidentially
  saved. No access to any of such data is, or can be in the future, provided to any third persons.
- The interviewee had a right to stop the interview, refuse from the interview, refuse from
  answering particular questions, withdraw the interview from the research material at any
  moment without any adverse consequences for this.
- The interviews were audio-recorded and further fully transcribed. The transcribed interview,
in whole or in a part, could be cited, or otherwise used in the current research, as well as in
  further research. Anonymity preserves.

The participants gave their expressed consent to participate in the study on the above terms. The
consent was either made in written form (for the interviews held in person), in general three written
consents; or in oral form with it's audio-recording (for the interviews held via electronic means of
communication), in general three oral consents.
The names assigned to the interviewees in the section 5.2.2. hereof are fictive and were included for the purposes of convenience of further description of the research results and discussion only. No information which can be used for identification of the interviewees was included into the description. The records and transcripts of the interviews are stored with preservation of the confidentiality, and no party except for the researcher, has access to the records and transcripts. The printed-out copies of the transcriptions will be destroyed after completion of the current research.

5.6. Background and previous research review

Literature study. The main aim of this study was review of the previous research in the field of health literacy of young people, its appraisal and also correlations between health knowledge with health condition (only cases when changes in health resulted from willful behavior of the individual). This part of study also included study of curricula of the classes related to the health education. The literature research was conducted in the digital databases such as DiVA, EBSCO, Academic Search Elite, and Google Scholar. The key words for search were the following: “health literacy”, “health literacy adolescents”, “health education”, “health education youth”, “health education teenagers”, “physical education schools”, “sexual education schools”, “measurement health literacy”, “mental health”, “health knowledge youth” and similar. Based on the above key words part of the articles was chosen for further review based on the abstract to the article, but major part of the found articles was left aside due to non-applicability to this research. The criteria for choice of the articles for further analysis were the following: 1) published not later than 2000; 2) related to the Nordic region and to Sweden in particular; 3) published in English; 4) target group of the study is young people; 5) related to the health education within school. Based on this criterion around 30 articles were chosen at the primary check. Further the chosen articles and publications were looked through with the criteria of 1) applicability to the research; 2) target group analyzed within the study described at the publication. In several cases articles were excluded due to the fact that the target group of the study included adolescents aged under 18 without any study on those aged 18 and above. Besides, several articles were related to studies of cultural differences between students of different countries or comparison of the curricula on the health education in various countries. Such articles were excluded from further review. The remaining part of the articles was checked as to applicability of the studies described to the current research and raising problematic issues in health education provided to the students within schools. Additionally, the summary of the school curricula on health education in Sweden and the WHO reports and policies were reviewed within the literature review regardless of the publishing date. In particular, reports of the Swedish agency for school education (Skolverket) available in English were reviewed and analyzed as to scope of information provided to the students within particular classes (e.g. biology, social science, sports classes and others). The review of the curricula on the health education in schools approved by the state was aimed at revealing the topics
which were declared to be the most important ones in the course of the school health education, and also the topics which were the least important in the course of the curricula. Besides, review was aimed to reveal the best and common practices of communicating the information about health to the young people as it is seen at the national level in Sweden, and compare this with the research on the particular topics found within the literature study. Review of the WHO publications was aimed at revealing global aims in the health education sphere and also for review of the previous analysis made on international level.

Statistics study: the aim of this part of study was revealing the major health problems of teenagers resulting from poor choices on health and finding probable correlations with the scope of information communicated to the pupils within the school classes related to the health. In case of finding correlations, more detailed analysis was made. The statistics for further review was chosen in the Nordic countries among publications of state institutions on health and education. The focus was put on the major health problems of the young people within the Nordic region and, in particular, on the frequency of diseases caused by unhealthy lifestyle and poor lifestyle choices. The statistical information included into the research referred to the latest statistics found in English, not earlier than the year 2016 in order to reveal current trends in the health and health problems within the Nordic region. Besides, in several cases the comparison with data on previous years was made based on the information provided in the newest statistics (e.g. information for last 10 years included into the latest statistics in order to reveal the trends and problems in the health condition of the population). The aim of the statistics study was to find correlations, if any, with health education provided within schools, i.e. whether the most frequent health problems and the most frequent health improvements are related to the information provided to the students within the school education and / or it correspond to the topics which are seemed to be the more important / less important within school health education.
6. Results

The themes found in this research are described below. Current section does not include the discussion of the results, herewith, analysis of the results of the research and correlations between the groups of the themes and themes themselves are included into the current section.

6.1. Observations

School health education can be viewed as a social learning example, as described in the social learning theory. The students get knowledge about health through such ways of observation as verbal observation (e.g. comments from the teachers, lectures), symbolic observation (e.g. additional materials, test studies), modeling (i.e. observing teachers’ behavior) and personal experience (e.g. resolving of a particular health problem) (Bandura & Walters, 1977). Further, themes related to observation by the students will be analyzed with their description from the point of view of their applicability for social learning process, and also from the perspective of influence on the health literacy of young people.

6.1.1. Practices of provision of health education in schools

This section includes the themes which are related to the process of health education in the schools in Sweden, and addresses such questions as major ways of provision of the health-related information, purpose of such classes and also priorities of the health-related education in school.

6.1.1.1. Form and scope of health education

The health education in the schools in Sweden is provided mostly within the natural science classes, in particular biology, and physical education classes (hereinafter – PE). Within these classes such topics as diet, activities for maintenance of the health, sleeping, reproductive health, unhealthy habits are discussed. For instance, Madeleine described the scope of the health-related classes as follows:

[...] don’t smoke, don’t drink too much alcohol, or don’t drink alcohol, because we were kids I guess. But they sad it’s bad. Ahm… and the important like stay active during the day. [...] We talked about it in biology mostly, and so the sexual health was mostly like protect yourself, this is how you don’t get pregnant, this is how you don’t get any like... illnesses...

Other participants described the scope of the topics discussed within the health education classes in a similar way. This complies with description of themes for discussion under health classes in the curriculum for the upper secondary school (Skolverket, 2013). As it can be noticed from the interviews, from Bandura and Walters’ social learning theory perspective (1977), the observations were mostly verbal for the students, they received all the information as part of the lecture on a particular class, hence the attention to the observation was brought to such observation in a due way. Besides, the way of provision information about health ensures retention of the observation, because participants indicated that they had several examinations of their knowledge on the topics discussed.
Accordingly, the students got access to the information about health and could understand it (and such understanding was tested), hence basic elements of the health literacy as described by Ringsberg et al (2018) were ensured in this way as well.

6.1.1.2. Health aspects to which the health education is oriented

According to the interviewees, the major part of the education about health was focused on active lifestyle. The participants mentioned numerous times necessity of exercising, conducting active life they heard about in the school. Besides, it was indicated that having PE classes was very advantageous not only from the point of view of receiving of information, but also from the point of view of exercising itself. Herewith, all interviewees stated that the aim of the PE classes, as they perceived it, was mostly to make students move, without giving the reasons of why should they move and do exercises. For instance, Mark described the PE classes as follows:

But that’s mainly like to get kids to exercise, not really to be informed about the good causes about moving your body and getting like… getting exercise. That was more like that wanted us to play around, play football or stuff like that.

Similar results were received in the study conducted by Webb et al (2008). It was revealed that the students did not understand properly the purpose of making exercises and thus often made harm to their body with over-exercising (Webb et al, 2008).

Applying concepts of the social learning theory as discussed by Bandura and Walters (1977), this result shows that observation on the active lifestyle was made both through verbal communication and personal experience, since the students were told what to do and they tried to do exercises themselves. Accordingly, based on the ideas of Rosenstock et al (1988), this may impact in a good way retention of the material and, to certain extent, increase the reproduction, since the students may be more interested in repeating the behavior (in this case, exercising) after having tried it (i.e. high level expectations as to self-ability to perform the behavior). Besides, from the health literacy perspective this type of observation includes all three elements of health literacy indicated in the WHO Health promotion glossary (1988): access to the information is provided through the classes, and its understanding and application is tested through exercising itself.

6.1.1.3. Priority of the physical health to the mental health education

The scope of health education provided in the school usually includes both physical health and mental health education. In the course of mental health education such topics as values, relations between people and some other aspects of social interaction are discussed. Herewith, all the participants indicated that mental health should be discussed much more, in all aspects, social interactions, personal feelings and also mental diseases and their symptoms. The interviewees stated that mental health issues did not have the same importance as physical health, and in several cases the students in
schools were not aware of interconnection between these two aspects of the health. For example, Malin reflected about importance of the mental health education as follows:

[…] of course physical health is important, but I think mental health is equally important. […] It doesn’t have to be there is something wrong with you, it’s like .. to make it .. it’s just like when you exercising, maintaining your physical body, like you have to maybe run 3 times a week or something to keep your physical health, the same with your mental health, you have to keep it good, you have to talk if there is something wrong.

Mark confirmed this idea:

But there was not really like a class of the importance of mental health and how like to make and not anything about how to manage feeling depressed or what to do if you feel anxiety and stuff like that. That is something that I think the school system should really work on.

It can be seen that importance of the mental health is underestimated in the school health education system and thus less classes on mental health are given to students. Using concepts of the social leaning theory concepts (Bandura & Walters, 1977; Rosenstock et al, 1988) it can be described as lack of observations about mental health. Accordingly, the observations in the sphere of mental health lack significance and this influences the future behavior of students and result in ineffective social learning.

From the health literacy perspective, the very first element of health literacy – access to the information (Ringsberg et al, 2018) – is undermined in such a way.

6.1.2. Information lacking in the school-based health education

This section includes the themes which refer to the information which may be added to the school health curricula according to the participants of this research. In particular, the themes describe the gaps in the information provided to the students in the course of health-related classes. The themes are described below based on the part of the health-related education they refer to.

6.1.2.1. Lacking information about physical health

The interviewees named several themes that either were not discussed in the course of the school health education enough or were not discussed at all. In particular, it was indicated that the PE classes were lacking the information about the reasons for exercising. As it was mentioned above, the main aim was to make students move and be active. At the same time no explanations on the actual need for exercising and benefits of exercising, potential risks of non-exercising were provided to the students. For instance, Mark explained it in the following way:

Just we get the exercise. But we didn’t get the information about why we should do that. Of course sometimes we had big tests in like PE and like assignments. We just discussed about why like, the cardio is so important part, and how it operates. So my answer is that it is mainly about getting exercises, it’s not mainly about getting the reasons why to exercises.
It should be noticed that absence of the reasons for exercising is not the only issue lacking in the physical health education in the schools. Some participants indicated that in the several cases they were not given explanations on how to exercise correctly and not to harm themselves while exercising. For sure, the respondents indicated that they knew how to do exercises correctly, but such information was mostly received from additional activities (e.g. special classes in school, gym, literature studies and other sources). For instance, Max answered in a following way to the question about exercise instructions:

Interviewer: But physical education, were you explained by the teachers how to do exercises in a right way not to injure yourself?
Max: I think somewhat... Not. Not as much as I think they should have. I think physical education, this “future fitness” and other courses similar to it, they were just focus on keeping us active and less about learning HOW to be active. It was like “Ok, this is how you play football”.. yea, but there is not really the same thing as saying how you move your body in the way it does not hurt you. At least that's my experience.

Similar situation was mentioned by two more interviewees. Without a doubt, the situation varies from school to school and may depend on a great extent on a particular teacher and a particular class. It should be mentioned that some interviewees did receive the lacking information in the school but in the course of additional classes which were not mandatory or from other sources. The information to be added to the school curricula was chosen by them based on their own experience, either received in the school in the form of additional classes or in the course of additional activities of the interviewees. For instance, Malin had special class on health, Felix practiced judo since he was a child and Madelene attended a school with special focus on sports. Accordingly, the themes for additional discussion in the school were revealed by them based on their additional information about the exercises.

These issues were also indicated in some previous researches in the field. In particular, Webb et al (2008) found out in their study that students tend to exercise to the maximum of their abilities, just to look good or according to the “standards”, without taking into consideration their health status and influence of such over-exercising on their bodies. In such the students, not-knowing reasons for exercising and correct ways of exercising can make more harm to their health than benefit.

Applying concepts of the social learning theory as described by Bandura & Walters (1977) and Rosenstock et al (1988), even though the way of providing the observation is quite effective and ensures retention of the information, absence of the reasons for exercising impedes high motivation of the students to do so, because in several cases they might not have understanding of purpose of doing so. This may also influence reproduction of behavior, especially in case of negative personal experience in exercising due to not having full information.
6.1.2.2. Lacking information about unhealthy habits

One of the issues mentioned by interviewees latently was lack of information on the reasons for unhealthy habits. The only interviewee having indicated this expressly was Magnus, but other interviewees were questioning the same issue. In particular, it was mentioned that even though people had knowledge about bad habits and their influence on the health they continue doing so, but the school curricula did not pay attention to the reasons for such behavior. For instance, Magnus explained it as follows:

Yes, but at the same time if you don’t. Yes, they say that you can get lung cancer and stuff like that. But. If you don’t say, if you only say “Hey this is bad, don’t do it” and explain what happens, but don’t explain why people do it anyway…? People smoke because it's joyful and it’s social thing and it's nice to go out and…. you know, you have to explain the whole picture and then say bad. Because then people understand more why, why people still do it even if it’s bad.

From social learning perspective as discussed by Rosenstock et al (1988) lack of such information may impede result of the observation, namely, the behavior health due to affecting the expectations of the learner as to following the observation. The observations themselves become less valuable due to the fact that they do not provide the whole picture of the phenomena. Accordingly, the learners are provided with the tools for combating the outcomes of the unhealthy behavior and with an observation showing that such unhealthy behavior is bad, but at the same time they are not provided the tools for combating the reasons for such unhealthy behavior. This may influence the whole process of learning and affect the level of health literacy, because it decreases the probability of full understanding and application of the received information about.

6.1.2.3. Lack of information about sexual and mental health

Sexual education and mental health education were mentioned by the interviewees as topics for more detailed discussion in the school. The participants indicated that the information provided in these spheres was quite basic, and helped to understand only basics of the maintenance sexual and mental health. Felix described his experience of the sexual education like this:

I would say more like… maybe sex education and so on in school, because when we have it, it was a little bit like a joke I would say.

Madelene also confirmed this:

We talked about it in biology mostly, and so the sexual health was mostly like protect yourself, this is how you don’t get pregnant, this is how you don’t get any like… illnesses… and … But it wasn’t… It wasn’t very deep. It was kind of few classes when we were 13-14 maybe?

Accordingly, the respondents indicated that more information about sexual health and sexual behavior could be provided within the school curricula. This also corresponds to the previous studies in the

The respondents also indicated that there was lack of information about mental health issues, symptoms and ways of prevention of mental diseases, and this may impede timely curing of emerging mental health issues. The participants indicated that the mental health education should be fostered by the school as an integral part of health in general and it should be de-stigmatized by the school to the maximum extent. For instance, Max described the education he had about mental health as follows:

[…] And my friends and me like … We just didn’t know symptoms, we didn’t know that sometimes this type of behavior is actually a symptom of either depression or something else. […] I think mental illness needs to be made more… Maybe not aware, because we are quite good at making to know what it possessed, but exactly what it is… What’s the word… Like… You wanna take it out of the fog? Like so it’s not stigmatized in the same way.

It should be mentioned that such experience of the interviewees corresponds to the previous research in the mental health sphere. In particular, the study conducted by Melas et al (2013) showed lack of knowledge about symptoms of the mental illnesses among young people and their inability to notice mental problems at their early stages.

From the point of view of the social learning theory as discussed by Rosenstock et al (1988) this can be an illustration of an insufficient observation. In particular, the students having motivation to maintain good health in all the aspects do not know how they should behave, because the observation did not give them enough information for such behavior. In general, lack of some information in the school curricula influences the health literacy of the students, since it affects the very first level of health literacy indicated by Ringsberg et al (2018) – ability to get access to the reliable information.

6.1.3. Various sources of health information used by the interviewees

All the interviewees were asked about sources of information about health they use and the sources of information they see appropriate for communication of such information for the young people. The participants indicated great use of internet sources. The internet sources were seemed to be reliable but at the same time it was stated that it is necessary to choose the source attentively since there is a lot of information which is bad and unverified. The participants chose the internet source either by feedbacks such a source had (likes, positive comments, number of views, etc.) or by their previous experience (e.g. articles of the same authors, channels advised by someone or found my themselves). For instance, Magnus described the process of finding information about health as follows:
I go by popularity. And many views and many likes you know? I go for them. Yes. And I just copy.

 [...] Because I read about it before then I know which sources are reliable and not. And then I just look up the source and maybe the author. And this, and see what else he wrote. Because for the I... or I search... yea, I search on it and then I find reliable source because then I know which are reliable.

At the same time, the respondents also indicated friends (including trainers) and family as the source of information. In many cases friends were the most reliable source of information for the interviewees. Felix, for example, said that usually he asked the friends about any issues he has a concern about:

To be honest I just ask my friends how have been training for a long time at the gym. So I ask him like is this right, is this wrong or how should I do. [...] They are not at all professional but... like a... I trust them, like can you... I think they know how to it, and I do the same. [...] If I don’t ask a friend because that’s what usually like the first thing I do, otherwise I just google it or maybe ask.... Hmmm… My friends and google I would say.

It is worth mentioning that one interviewee – Madeleine – indicated that the most reliable source of information for her is either school or a professional. She indicated that she does not use the internet as a source for health information because there is too much information which is not reliable. Besides, she mentioned that in several cases she discussed exercises with one of her relatives, but in general she would like to talk to a professional.

The interviewees indicated school as a desirable and most appropriate source of information about health since in such a case the information will be communicated to everyone. Only one interviewee – Magnus – indicated that he did not see the school as a reliable source of information due to the fact that no explanations for unhealthy behavior reasons were provided. At the same time, he indicated that the school should be the most important source of information about health for young people:

To get the information... to get attention... the school should be the best because everyone go there. And everyone can get the information.

School health education is seemed as a ground for future development of the knowledge on the health, guidelines for the health education by all interviewees. The same idea was expressed in the research made by Hagell et al (2015) seeing the school as the main source of health promotion and health education. However, no interviewee, except for Madeleine, mentioned the school as the source of information they used, e.g. talking to the school professionals or receiving the information at the lectures.

In such a way it can be noticed that observations possibilities, in the sense of social learning theory as described by Bandura & Walters (1977) and Rosenstock et al (1988), in the school are not enough for the students. This affects the ability of the students to get the information – ground part of the healthy
literacy mentioned by Ringsberg et al (2018) - which is correct and appropriate, and further affects other levels of health literacy, such as understanding – because it is based on previous knowledge, and in several cases such knowledge is received from internet sources which are not reliable enough – and also application of such information in a correct way.

6.1.4. Age of health education in the schools

Health education starts in quite early age in the school systems in Sweden. For instance, according to the interviewees, sexual education started at the age of 12-13, physical education started even earlier. Herewith, the respondents indicated that in several cases the age for provision of information was chosen inappropriately. For instance, it was stated that mental health education could start in the earlier age in order to make mental health education more usual for the students and to avoid its further stigmatization. At the same time, it was mentioned that sexual education due to early age was underestimated. Mark described the classes of the sexual education as follows:

More like a joke. Yea. More like a joke. They did not like something, it’s kind of embarrassing for a lot of people, especially around that age. So a lot of people joked around and was pretty ashamed and stuff like that. It was easier to just joke about it, not take it seriously which is kind of a shame. Because you can learn a lot about it, and you should learn a lot about it. But yea, that like… a lot of kids don’t take it seriously.

The same conclusions about the health education age were made in the studies conducted by Ekstrand et al (2005; 2018) when it was revealed that the age for the sexual education was often seen as inappropriate.

It is worth mentioning that not all of the participants agreed that the health education should start as early as possible. Several indicated that the age should remain the same because this is the age when students can understand and apply the information properly, e.g. show high level of health literacy. Herewith, all of the participants indicated that the health information should be repeated several times within the school, so that the students were always aware of the health issues. Malin expressed it as follows:

I think it should definitely be repeated. Like health issues and stuff so that people learn. I think a lot of Swedish people know. They know how to maintain good health but it does not mean that everyone does maintain good health.

Based on these reflections about timeframes it can be concluded that there is a need to provide repeated observation for the students. Similar findings were received in the research of Ekstrand et al (2005; 2018), when respondents indicated their will to receive the information about sexual education repeatedly.

Talking from the social learning perspective as discussed by Rosenstock et al (1988) such repeated observation will help to understand the observation better, be aware of the observation at any moment
of their education, increase the motivation and is more likely to result in the reproduction of the observation and maintenance of good health by the students. It will positively influence the health literacy in general because the students will have access to the information continuously, and also deeper their understanding of the themes. Thus, two elements of the health literacy indicated by Ringsberg et al (2018) will be duly ensured.

6.2. Environment

This group includes themes related to creation of favorable conditions for due health education, i.e. expectations and incentives as to the observation, when speaking in the terms of social learning theory as described by Rosenstock et al (1988). In particular, the themes of attitude of the interviews and students in general towards health education and its particular parts, influence of the teachers and other school professionals on the health observations of the students and some others are described. The issues discussed in this section are grouped on the criterion of their influence on the internal decision of a student to follow the observation or not to follow it, since favorable environment increases chances of the reproduction of the observation.

6.2.1. Health education general perception among interviewees and its “rating” in the school education

The majority of the interviewees indicated that they were satisfied with the school education on health. The exception in this case was only Max who indicated that he was not satisfied with the outcomes of the classes at all. The reason for this was lack of information about sexual and health education, and inability to receive the more knowledge due to lack of previous studies:

Interviewer: Were you satisfied in general, when you were in school, with the scope of information provided to you during these classes related to health?

Max: No, absolutely not. Since then I’m very-very interested in mental health and sexual health, and I feel that there should be classes specifically for that, or at least some general information.

All interviewees showed interest to the health-related classes they had in school. Such interest of the students to the health-related education was also found out in the previous studies. For instance, in the research conducted by Quennerstedt et al (2008) was noticed that generally the students had high interest to the PE classes and positive attitude towards them. Findings of Quennerstedt et al (2008) as to gender difference in attitude towards classes were not confirmed in this study, interviewees under current research showed similar interest in PE classes regardless of the gender. At the same time, even expressing satisfaction with the outcomes of the courses some interviewees expressly indicated in general low priority of the health education in the school systems in Sweden. In particular, Madelene stated that:
Some interviewees did not expressly indicate the necessity to increase the priority of health education in the schools in Sweden. However, they indicated that the health-related classes or some other health-related practices should be made mandatory, because currently additional health education is an elective course. Besides, as it was noticed by Mark, depending on the specialization in the high school additional health-related classes cannot be chosen because they are not related to the specialization. Accordingly, it may be concluded that the interviewees latentl­y indicated the necessity for increase of the priority of the health education in the schools in Sweden.

From the social learning perspective as discussed by Rosenstock et al (1988) and Bandura and Walters (1977) the motivation of the participants to learn more about the health is high, and their expectations are high. At the same time, low priority of the health education in the schools influences the incentives perception of the learners and thus may decrease the reproduction. The fact that possibility to choose additional health-related classes depends on the specialization undermines the basic element of the health literacy as indicated in the WHO Health promotion glossary (1998) – access to the information.

6.2.2. Perception of the sex education and mental health education

Interviewees indicated several issues which arose and may arise further in the course of sexual education, and in the mental health education in case of possible special mental health classes. In particular, four participants indicated that the sexual education classes were taken as a joke, and the students were not serious during these classes. Among reasons for that they named were, for instance, early age, inappropriate explanation by the teacher and, in general, discussion of such topics in front of other people. For example, according to Felix the sexual education was perceived as follows:

I would say more like… maybe sex education and so on in school, because when we have it, it was a little bit like a joke I would say. […] So I would say… I don’t think our teacher there he was like… how do you say… He was not in the mood to talk about. He was like “I have this paper, I have to say this to my students. So let’s get over it. I just read and say to you ok”, we got two classes this week to talk about like sex or what’s happening” and so on. And then it was over.

In contrast to them two interviewees indicated that they were serious during sexual education classes. At the same time, they mention, that is more personal reaction, for instance, Madelene said that:

Well I took it seriously. But … there were of course people that were just joking around and making fun of it, but not me, not specifically me.

Accordingly, from the social learning theory perspective, in several cases the observation on sexual health was not duly understood and perceived by the students, i.e. they had wrong expectations about it in the terms used by Rosenstock et al (1988). This may still result in behavior different from the
observation, due to the fact that environment was not encouraging for student to accept the information properly and to take it seriously. This affects the health literacy level of students, starting from their proper understanding of information and ending with its proper application. Confirmation of this can be found in the study of Ekstrand el al in the year 2005 and in 2018 showed that there are still numerous cases of unhealthy sexual behavior among young people, such as unprotected sex and misuse of contraceptives (Ekstrand et al, 2005; Ekstrand et al, 2018).

Mental health education was mentioned by the participants specifically. It was stated that mental health issues were not very discussed in the course of the school health education, and thus it is stigmatized, it is not something to talk about. Respondents indicated that education about mental health was seen as something shameful to talk about, especially in case such information was received in a private conversation with the school staff. In particular, Mark indicated that:

I feel like that being like… mental sick or like having problem with depression, anxiety is something that is shameful. […] So it would be like kind of weird and unusual for a guy and even sometimes a girl to go to the school psychologist, even if the person would be sad or depressed. They would choose not to go there because of the shame that they can receive from others in school. It’s very judgmental to go to like psychologist in school.

Some extent of stigmatization of mental health issues among school students was also noticed in the study conducted by Melas et al (2013) when some level of negative attitudes was reveal towards schizophrenia symptoms.

Some proposals were made by the interviewees, in particular holding more classes on the mental health so that these issues were seen as normal to talk about and so that the school environment became more favorable for resolution of the mental health issues, if any. For instance, Malin stated the following:

[…] Even there is help you can go to the students’ chancellor, and talk or anything, people don’t do this because they think it’s shameful to have bad mental health so they just keep it for themselves.

Accordingly, applying the social learning theory concepts explained by Rosenstock et al (1988), the expectations about environment and circumstance are seen negatively, and reinforcement is perceived as an adverse event, especially when the observation requires the learners to talk to the school professionals. Accordingly, that part of health education observations cannot be followed by the students due to the fact that it is negatively perceived by the school society and the environment is unfavorable environment to follow such observations.

6.2.3. Role of the school professionals in the health education and healthy behavior
The students in the schools are provided with possibility to talk to the school professionals about any issues. As indicated by the interviewees, students were made aware of this possibility at all the time, and they were also informed that they could receive more information about health issues in case they needed it at any time. At the same time the interviewees indicated that talking over a student’s problems with a school professional was seemed as something shameful, as discussed above. Among all interviewees only two indicated that they applied for help from the school professionals. Madeleine did not manage to receive an appointment with them, and in general she indicated that such support was quite impersonal. Magnus received help from the school stuff when he needed. Accordingly, even though the possibilities are created they are hardly used. At the same time, all interviewees stated that going to a school professional was not a usual practice at their schools. For instance, Madeleine said the following with regard to talking to the school professionals:

[…] it wasn’t that easy to get a time to talk to them. And that was not something that people would normally do. That would be just that one person that went to the nurse, but the rest of the class were like “What, is there even a nurse?”. That was not something that was encouraged or anything. […] And… as people went… lot of times they like wouldn’t tell, they wouldn’t tell you why.

The interviewees indicated that in several cases the teachers were role models for them to follow, but at the same time in several cases they indicated that teachers’ lifestyle contradicted to a great extent to their statements during the classes. For instance, Malin indicated the following:

I think some teachers yes, some teachers no. It’s like some teacher were smoking with students in the court and … some teachers were like “Noo, don’t do that, it’s not good for you” …like.. some teacher were very good examples to follow, and some teacher were like… They didn’t care, they just care about themselves. I don’t know..

For sure, this situation depended a lot on the teacher, but in some cases this affected the observations in the sense of the social learning theory as described by Bandura and Walters (1977) received during the classes and thus did not encourage the behavior – conducting healthy lifestyle. Relating to the health literacy as discussed by Ringsberg et al (2018) such inefficient observation affects the health literacy in several ways. First, it impedes continuous access to the information, including in cases when they want to receive the information but they do not do it due to unfavorable environment, or the information received at the lectures contradicts to the information received through observing the teachers. Secondly, it impedes application of the health information.

The participants indicated high role of the teachers in the students’ health. They mentioned that teachers should pay attention on the student health, especially mental health, and in case a student shows any symptoms of mental problems, including depression, anxiety and others, the teachers should take measures on solving these problems. The major proposal here was a private conversation with a student. For instance, Magnus stated that:
If the teacher notices someone is not feeling good or have been for a long time, yes, then teacher should talk to them. This shows that generally participants rely on the knowledge of the school professionals, or saying in the terms used by Rosenstock et al (1988) the circumstances expectations are high and observations received from the teachers may play significant role.

6.3. Reproduction

This group of themes is related to the active behavior of the interviewees and their lifestyle, e.g. outcomes of the school health education. It is important to analyze how observations received by them in the school were applied by them and if they resulted in respective behavior.

6.3.1. Lifestyle of the interviewees

Participants of the research indicated that mostly they do not have unhealthy habits. All mentioned that they consumed alcohol, but at the same time some of them saw it as an unhealthy habit, and some of them see it just as part of the life. Herewith, no one indicated that he or she had any problems with excessive consume of alcohol, other unhealthy habits or other health issues related to unhealthy life choices (except for hangover). For instance, Madeleine explained her habits as follows:

Well, I think I eat quite happily, I do drink alcohol. Like… At least once a week, sometimes up 3 times a week, I’m a student so it’s quite a lifestyle.

The interviewees also indicated that they generally know how to keep healthy diet, even though they sometimes do not follow it. The participants conduct active lifestyles. Four interviewees work out in the gym at the weekly basis, and two interviewees do some activities for maintenance of the health (e.g. jogging, walking or cycling).

Accordingly, it can be concluded that the health observations in the school had quite positive outcome and resulted in the desired behavior of the students.

6.3.2. Self-education

The interviewees self-estimation of the individual level of health literacy showed, that they have medium or high level of health literacy. The majority of participants (four out of six) indicated that their level of knowledge and understanding of the health information is medium and there is always a room for improvement. For instance, Felix described his health literacy level as follows:

Medium, down to the medium I would say to be honest. I know I should eat more vegetables, drink more water and don’t drink alcohol so much, but… I don’t know.. that’s life.

Madeleine and Magnus estimated their level of health literacy as high. These participants explained such estimation as having enough knowledge, knowing what to do and what not to do (Madeleine) and active self-education in the sphere of health (Magnus).
At the same interviewees indicated that they receive additional information about health, they are aware of general trends in healthy and healthy lifestyle. All of them answered on the questions on sources where they receive the information, several of them (Max, Magnus and Mark) indicated the most preferable sources of information. Accordingly, it can be concluded that school health education stimulated the interviewees to receive more education in the health sphere and constantly increase their level of health literacy.

6.4. Cultural differences in the health education

The participants did not reflect on this theme particularly, and only explained their experience after a particular question on this. Two interviewees indicated some difference in health level in general between students with foreign background and students without it, and related this to lack of the information received by the students with foreign background previously. At the same time, all interviewees stated that there was no difference in the education and attendance of classes between the students with foreign background and students without it. All were interested and involved in the health-related classes. Based on this, the analysis did not include any adjustments to the cultural background of the participants and students in the schools.
7. Discussion and conclusion

This section includes analysis of the results received under this research and the methods applied under it. Firstly, results of the research are discussed, and further the discussion of the methods and methodology applied in this research is provided. At the end of this section conclusion of the research overall is included.

7.1. Results discussion

Current research was aimed at revealing the best practices of the health education in the schools in Sweden and revealing of controversial and problematic issues in this field from the point of view of the young people. Accordingly, the main focus of the research was put on such aspects of the health literacy of the young people as their ability to receive due information about health and to understand in properly. The process of acquiring the knowledge was analyzed, including the access to the information and environment for its receiving. Application of the health knowledge was analyzed to the extent it is related to the health education in the schools. The issues related to motivation of one to follow and not to follow healthy lifestyle were not analyzed in the scope of this research. Themes which were not related to receiving the information and its understanding were left out the scope of research and were not analyzed.

The themes found out under the current research were divided in three major groups – Observations, Environment, Reproduction. The division was made based on the social learning theory as described by Bandura and Walters (1977) and Rosenstock et al (1988) with consideration of the health literacy aspects indicated in the WHO Health Promotion Glossary (1998). In particular, the group Observations included the themes which were referred to the ways the students received the knowledge, observations themselves; the group Environment included the themes which were referred to the circumstances, environment in which such observation were received, and also in which such observation was supposed to cause the behavior of the students, i.e. expectations and incentives / reinforcement related to the observation; group Reproduction included the themes which were referred to the outcomes of the health education, i.e. actual behavior of the participants. For more convenience, summary of the analysis of each particular theme was provided in the results section in relation to each theme. The results of the analysis of each of three groups (Observations, Environment and Reproduction) is provided further, from the general point of view of each particular part of the social learning process.

7.1.1. Observations

Analysis of the observation theme has showed that the information provided to the students in the schools, as remembered by the interviewees, is quite basic and does not go in depth. The health information is provided to the students as summary or guidelines for health behavior and further information gathering. Herewith, such summary does not pay a lot of attention to the reasons for the
particular behavior, in several cases does not explain the correct way of behaving (e.g. exercising correctly). Besides, it has been noticed that there is lack of information on several topics in general, such as sexual health and mental health, these topics are either partially left apart (sexual education), or hardly discussed (mental health).

These findings are correspondent with the previous research in the sphere, and also with statistics. In particular, insufficient information on exercising results in wrong attitude of the students to the physical health and thus in unhealthy behavior (extreme exercises and diet) as indicated by Annerstedt (2008). This impedes students from behaving in ways which maintain mental health, or from using all the opportunities for health education, as talking to the school and medical professionals. Lack of information on sexual health results in unhealthy sexual behavior as found out by Ekstrand et al (2005; 2018). Mental health issues are barely discussed and thus the students, according to the interviewees, do not have tools for dealing with the mental health issues and cannot recognize the mental health problems in their early stages. At the same time, as found out in the research made by Välimaa et al (2008), initial symptoms which can be found in the adolescence age provide a risk of development in mental illnesses in the later age. Hence, due knowledge about the mental health could help to decrease the risk of development of the mental health problems.

This lack of information about health may impede healthy behavior of the students and development of their health literacy from its very first element mentioned in the WHO Health Promotion Glossary (1998) – access to the information. Since the access to reliable information in the school limited, the students need to apply for other sources of information which sometimes are not verified or reliable.

As to the way of providing the health information, it was also mentioned by the interviewees that it could be made through mandatory class at school. This would be advantageous from the health literacy and healthy behavior perspective. First of all, referring to the social learning elements as discussed by Rosenstock et al (1988) and health literacy elements described by Ringsberg et al (2018) that will give wide access to the information which is enjoying high level of attention and retention due to being communicated through classes. Thus it will increase expectations about one’s ability to follow the observation. Secondly, it may foster healthy behavior of the students, because the school environment (and environment expectations of the learners) will be changed in such a way: if everyone is aware of the healthy options in the topics interested to them, the environment will be more favorable for application of such options. Thus, probability of healthy behavior may increase as well.

It was also indicated by the participants that the health education may be repeated with adjustments to the age of the students, in order to provide the students with updated information continuously in the course of their studies. Similar results on necessity of repeated health education were received by Ekstrand et al (2005; 2018) in the research about sexual education. Speaking with words of social
learning theory as explained Rosenstock et al (1988) and health literacy as discussed by Ringsberg et al (2018) possibility for numerous continuous observations will give wider access to the information and its deeper understanding. Besides, it will work as stable incentive to apply the knowledge about health, since the information will be seen, on one hand, as important due to being continuously repeated, and, on the other hand, as more usual and applicable due to increasing self-expectations of the learners.

Accordingly, there is large interest in exploring health related information, hence, more possibilities for observations should be provided. For sure, the information can be received through other sources that school but the school is seen as the forum where verified information can be provided to everyone. Insufficiency of the health information in the school results in decrease of ability of the students to receive verified information, understand it (and also choose the information which could be considered as reliable from other sources than school) and apply it correctly which affects their health literacy in all major elements indicated in the WHO Health Promotion Glossary (1998) and discussed by Ringsberg et al (2018). Such insufficient observation can hardly be a ground for expected behavior in the future since the lower is the health literacy level the higher are the risks of unhealthy behavior, especially at the young age, as indicated by the Fleary et al (2018). Accordingly, one of the effective ways to increase health literacy is provision of more information to the students in schools, since, according to the interviewees, they show interest and are satisfied with the outcomes of the courses (e.g. the information provided to them is seen as useful).

7.1.2. Environment

It was revealed in the course of the analysis that respondents saw the school as the main source of information about health for the young people since it allows to reach everyone, and showed high level of trust to the school as the source of information.

Level of satisfaction with the outcomes of the health-related courses was also mostly high among the participants, except for Max. Taking into account that the interviewees mentioned numerous topics which should be added to the school curricula, high level of satisfaction on the course may be related to the fact that majority of the participants had additional sources of information for health, especially physical health, e.g. additional classes at school, sports activities outside school, friends or family members practicing or working in the sphere. Accordingly, the interviewees had access to plenty of information. On one hand, this helped them to reveal the topics which should be added to the school curricula, as discussed above, to make the additional information about health available for everyone. On the other hand, it may impede objectivity as to the outcomes of the mandatory health-related classes, since the information was received by the interviewees anyway and they had the information they were interested in.
Regardless of the positive attitude of the respondents towards the health education in the school, it was noticed that several problematic issues were present. It was indicated by the interviewees that in general the health education has quite low priority in the school education system in Sweden. Additional health classes are proposed as alternative other classes or are not proposed at all depending on the specialization of the students.

From the social learning perspective, such prioritization of the health education classes adversely affects the expectations as to the environment and circumstances of the observation. Besides, it lowers the incentives for following the observed behavior. Motivation of the students can lower in such a way, since they see health education and its application as not important part of life and may abstain from behaving in accordance with the observations due to considering them insignificant. It influences such elements of the health literacy indicated by Ringsberg et al (2018) as access to the information and its understanding (and proper evaluation) of the students since the students see the increase of the health knowledge as not important and may lose motivation to receive more knowledge in the sphere.

Other problematic issue revealed in the course of this study was teacher-students’ interaction. In particular, teachers were not always considered as a role model and their behavior can differed from one they tell about in the class, as it was indicated by several interviewees. Students received controversial observations on the health which impedes them from following information they receive in the lectures. Using the definitions of Bandura and Walters (1977) it affects the observation, since the observations received by the students differ and there is no clear explanation what observation to follow, since both observations come from the same source. Following the WHO Health Promotion Glossary (1998) definition of health literacy such situation affects the ability to understand the information in a due way to maintain good health, because the information is contradictive.

Besides, the participants indicated that communication with the school health professionals, especially on the issues related to mental health, was considered shameful by the students. From the social learning perspective as described by Rosenstock et al (1988), this creates negative expectations as to the environment in which the observation is made and behavior should be performed. This makes the observations ineffective since the environment judges behavior in accordance with the observation and does not create favorable conditions for following the observed behavior model.

At the same time, the participants indicated that the school professionals should be more engaged in the health of the students, and in case of a problem, school professionals should discuss such problem in a private conversation with a student initiated by the teacher. Accordingly, there is a controversy as to communication with the school professionals. In particular initiative of the student in this case is seen as shameful and inappropriate action by other students, but initiative of the teacher in such a case
is seen as right was of action. In the words of Rosenstock et al (1988), such controversy may result from negative expectations as to the environment for applying for help from the school specialist and low expectations as to the self-ability to follow the observation properly (i.e. talk to the professional in a clear way). Existence of such a controversy, from the health literacy perspective as explained by Ringsberg et al, shows inability to apply the health-related information due to unfriendly environment and thus it affects the third element of the health literacy.

The above mentioned problematic issues may decrease the motivation of the students and thus the probability of reproduction of the healthy behavior model. In such a way health literacy level of the students is also affected since they abstain from application of the health knowledge they receive and also they abstain from deepening their knowledge. Based on this, it can be concluded that there is a need to increase the priority of the health education in general, and also to improve the environment in which such education is held.

7.1.3. Reproduction

Generally, the interviewees showed high level of reproduction of the health behavior observed in the school. They conduct active lifestyle, do not have numerous unhealthy habits and in general are highly aware of the healthy lifestyle options. Cases when the interviewees did unhealthy life choices can mostly be related to lack of motivation from their side and low incentives for the behavior.

At the same time, the participants self-educate in the field of the health. Speaking from the health literacy perspective (in the definition of the WHO Health Promotion Glossary (1988)) they are able to get access to the information about health and they understand to maintain good health. Hereewith, the interviewees indicated lack some information, and it was indicated that missing information could be provided in the school.

Concluding the results discussion, it can be indicated that increase of health literacy among students and improvement of the existing system of health education in the school should be given more importance. It has been mentioned several times that more education in the sphere of mental health education is needed. Taking into account increasing level of the mental disorders among young people in the Nordic countries, provision of more detailed information about mental health, possible mental diseases can help to prevent spreading of the mental problems (Nordic Medico-Statistical Committee, 2017; Sommer, 2016), because the students from early age would be able to recognize emerging mental health issues and take measures on prevention of their development. Besides, in general, higher level of health education and health literacy will help to increase general well-being and decrease level of the diseases which result from unhealthy life choices (e.g. obesity) which is currently increasing in the Nordic countries. Without a doubt, reorganization and improvement of the existing health education system in the schools in Sweden will require a lot of effort. Herewith, it will help to mitigate health
problems among young people and further prevent development of health problems which result from unhealthy lifestyle, which in the result may decrease burden on the medical support of the population.

The results of this research can be a ground for future studies of the school health education in Sweden, and can be also applicable for such research in other Nordic countries. In particular, several problematic issues were revealed both in provision of information (e.g. lack of some information) and in school environment around health education (e.g. low priority of the health education). The reasons for such problematic issues need to be analyzed and solutions for them should be proposed, and this can be done in the form of a particular research in the sphere.

7.2. **Methods and methodology discussion**

This section includes discussion of the methods and methodology applied in this research. Firstly, the sampling is discussed. Following the sampling, discussion of the method used is provided. Further, discussion of the methodology applied in the research is provided. At the end of this section summary of the methods and methodology applied is included.

7.2.1. **Sampling discussion**

Interviewees were recruited under this research through snowball sampling. Since the snowball sampling is a non-probability way of sampling, they could lead to undue representation of the participants in the research, i.e. sampling from interrelated group of people. Herewith, it can be noticed that in this research the risk of undue representation was low. Even though the interviewees themselves were found through gatekeepers, the gatekeepers were found on the random basis, and they were not related to each other. The interviewees mostly did not know each other (except for two interviewees). They are domiciled in different places, they are of different age, and they have different background (both in school education and in the university education, where applicable). Accordingly, it can be concluded that sampling was representative and the risk of misrepresentation was mitigated.

7.2.2. **Method discussion**

The main method used under this research was semi-structured interview. Use of this method allowed the researcher to receive personalized experience of the participants on the health education in the schools, but also allowed to include their reflection on such education after completing such studies from the point of view of their effectiveness. It provided more objective data, since the participants were distanced from the environment they talk about. Besides, it helped to receive the information about different stages of the health education in the schools, starting at different age. There was a risk that the interviewees would not give exact explanations on the interview questions due to forgetting some of their past experiences and thus the data could be inaccurate. This risk was mitigated through
additional questions during the interview and further comparison of the interviewees’ replies to the questions.

Since it was a direct study of the interviewees and no study with use of obtrusive methods has been conducted, the interviewees could include the reactive part and thus in several cases be subjective. Herewith, these disadvantages of the interview were mitigated though asking numerous probing and indirect questions to confirm the previous statements received as answers to introducing and direct questions. This helped to reveal and confirm the more objective statements. It is worth mentioning that in the vast majority of cases the statements expressed by the interviewees in the answer to introducing and direct questions were confirmed with follow-up, probing and indirect questions. In cases when the statements differed depending on the question, the probing questions were asked. In these cases, the interviewees, after short reflection, confirmed one of the statements, which were more underlined in their replies to other questions. Besides, comparison of the major topics underlined by the participants was made. Even though in several cases the experience of the interviews was opposite, or several participants made a specific statement not expressed by any other interviewees, the problematic issues underlined by them were the same, regardless of the age, gender and background of the interviewees. The themes and topics revealed within the interviews were compared to the previous research, if any. Hence, it can be concluded that the data collected within this study is objective and shows a brief overview of health education practice.

In order to collect the data from the target group focus groups and qualitative questionnaires could have been used. Herewith, these methods were not used in the research due to possibility of receiving non-objective or non-full information. Analysis of the focus groups material could be impacted by the fact that the interviewees would not open up and explain their own experience in front of the group. Besides, several interviewees were quite short in explanation of their ideas, and participation in the focus group could result in the fact that such interviewees abstained in expressing their opinion. Thus, focus group would include the opinion of the most active participants. Use of focus group as a method was also impossible due to the fact that all interviewees reside in different areas in Sweden, thus proper holding of the focus group was not possible. The questionnaires were not used in the research due to the fact that they might provide insufficient information. The questionnaire would have included open questions, and thus some part of the information could be omitted by the participants due to time-consuming process of answering to the questionnaires. Besides, questionnaire does not give possibility to develop ideas of the participants stated in the answers to the open questions and direct the discussion based on both, previous responses of other participants and previous responses of the participants him or herself. Accordingly, the semi-structured interviews were chosen as a method which allowed to receive structured information from each participant and also allowed to take into consideration previous replies of the respondent and direct the interview respectively.
More obtrusive methods could have been used for the search. In particular, the research could include interviews or focus groups with school and health professionals. This could help to analyze the best practices of provision of health education and also put more focus on environment. Herewith, as it was indicated in the Methods section, focus groups with school and health professionals were not possible to hold due to their refusal from participation in the study or absence of any reply from them.

### 7.2.3. Methodology discussion

The results of the interviews were analyzed with application of the thematic analysis methodology. This helped to reveal themes of major interest and importance for the participants, and also to group similar themes expressed by different interviewees. The methodology gave flexibility to the analysis of the results, and helped to analyze the results with application of the social learning theory. At the same time, thematic analysis helped to address the research problem in full, i.e. to reveal the controversial issues in the school health education. In the process of coding and revealing of the themes, the codes and themes were made quite broad. It can be noticed that stricter coding and themes revealing could have been used in order to receive more specific results. Herewith, the majority of the codes and themes were interrelated with each other very closely, accordingly, that was hard to distinguish specific codes from each other (for instance, trust to the school as the source of information from behavior of the teachers, because they are interrelated). Based on this wider coding and revealing of the themes was used, as to group the codes into the themes which can describe all the codes and provide better overview of their interrelation. The themes described in the result of this research provide good overview of the issues discussed in the interviews and also their interconnections.

As alternative to the thematic analysis such methodology as grounded theory could be used for analysis of the results of the research. Herewith, this methodology was rejected to be used under the research due to possibility of receiving data which is inappropriate for the research problem. Grounded theory requires formulation of the theory on the research topic, which summarizes all the data collected, and this was not the aim of the current research. Other alternative to the thematic analysis which could have been used is content analysis. Herewith, content analysis mostly focuses on the texts and thus there was a risk of receiving the results inappropriate for the research problem. Since the aim of current study was revealing the most controversial issues and gaps in the school-based health education in Sweden, thematic analysis seemed to be more appropriate for addressing the research problem and detailed analysis of all the themes revealed in the course of the interviews.

Application of the methods and methodology gave possibility to analyze the data in full, and also to systematize the analysis within the framework of the applied theory. All this made it possible to receive due knowledge of the school-based health education. The data was analyzed with application of the thematic analysis methodology within the social learning theory, and thus the analysis uses both,
inductive and deductive approaches. Methods and methodology for the research allowed to receive reliable, valid, credible data.

Reliability of the research shows the extent to which the results of the research are repeatable and stable in varying conditions (Bryman, 2015; Drost, 2011). Results of current research are reliable. Application of semi-structured interviews as a method gave possibility to test the data. The answers of the interviewees were re-tested in the course of asking probing and indirect questions, and all the statements were confirmed. In case of having several concurring answers from the same interviewee several rounds of asking indirect and probing questions were made in order to reveal the major statement. The themes revealed while interviewing were probed with all the interviews (e.g. additional questions were asked, as described in the section 5.3.2. hereof). Since the research was conducted by one person, probability of any inconsistency in coding or analysis due to different interpretations of various researchers is absent, and the results are coded and analyzed in the same way throughout the whole research process. Besides, results of current research show similarities with the previous studies conducted on similar questions by other researchers.

Validity of the research shows whether the measurements used for the analysis really measures the phenomena (Bryman, 2015; Drost, 2011). Among others, the following types of validity can be indicated: internal validity which estimates whether the relation between the researcher and the researched influences the research results, and construct validity, which estimates whether the interpretation truly reflects the content of the data (Drost, 2011). The method and methodology used under this research gave possibility to properly analyze the data. In relation to this research it can be noticed that its results show internal validity, since any influential relations between the researcher and the participant were absent. Besides, the research shows construct validity. The replies of the interviewees were compared between each other, and the themes included into the results of this research were expressed by all or majority of the interviewees. In the cases an interviewee expressed a different opinion he or she was asked through clarification questions about the reasons for such opinion, and in these cases the outstanding answer were related to personal preferences of the interviewee or to his or her personal experience. Otherwise similar answers were obtained from all the interviewees regardless of their gender or age. Interviewees in several cases were asked to confirm whether understanding of the researcher of their statement is correct. In the end of each interview the researcher made the summary which was confirmed by all interviewees as correct understanding of their statements.

Credibility is a concept describing trustworthiness of the research, i.e. ability to receive elicit information (Nkwake, 2015). Methods and methodology used in this research allow to confirm the credibility of the data received. The information gathered through interviews provided wide overview of the health education experience of the participants and included their reflections upon it. All the
Interviewees showed deep understanding of the topic they were asked to reflected upon, and their answers were checked under several rounds of additional questions. Similar to the current research information was received in the course of literature and previous research analysis. Accordingly, the information collected under this research can be considered sufficient for study purpose and problem definition analysis. In order to increase credibility of the research additional research with the target group involving school professionals can be conducted.

Generalization is a concept evaluating possibility to apply the study results as a general rule. In qualitative study this includes making broad conclusions from studied data (participants) to unstudied one (Polit and Beck, 2010). Current research was conducted as qualitative study, and thus it's generalization may be questioned due to comparatively low number of the participants. Besides, the majority of them had special education in the sphere of health (e.g. additional classes at school, additional school activities, etc.) and thus the results may differ for the students not-having this knowledge. Herewith, the themes included into the results section were transferred from one case to another, and the participants showed similar results regardless of their gender, age or area of residence. Accordingly, current research may be indicated as analytical generalization, but for confirmation of the findings of the current research study with higher number of participants is needed.

7.3. Conclusion

In the course of current research, the participants showed positive attitude towards school health education and medium level of health literacy in general. At the same time, several problematic issues affecting health literacy of young people were found, such as lack of information on some health issues (e.g. sexual health, mental health), necessity of provision repeated information about health and necessity to increase the importance of the health education in general. Besides, it was found out that school environment around health education in certain cases is not favorable for the due perception of the health-related information. At the same time, taking into account interest of the participants in the health education, such problematic issues can be resolved and health education can be improved. Current research can be a base for future research on the reasons of the indicated problematic issues, especially questions of environment around the health education in schools. The research showed reliability, credibility and validity. It cannot be used as pure generalization, herewith, several themes revealed in the course of analysis can be used for further generalization.
Reference list


Appendix No. 1

List of approximate interview questions for the individual interviews with the target group

1. Demographics (age, sex).
2. What do you usually do on your free time?
3. Do you practice sports? Do you conduct active life (biking, walking, etc.)?
4. Do you have or you may have any health issues resulting from lack of information about healthy lifestyle or poor health-related decisions?
5. Do you have any unhealthy habits? If yes, do you know the exact consequences of such habits?
6. Where do you receive the information about health from? What is the most used and the most reliable source of health information for you?
7. Did you have a class in the school related to health education, provision of information about healthy lifestyle, etc.? What were the main topics discussed within the school course? What topics should be added? How satisfied are you with outcomes of such a course (including whether you see this information useful / useless)?
8. Did you receive any information about health in school not at the class (e.g. during special organizations visits, etc.)? What type of information? How satisfied you are with outcomes of such visits, etc. (including whether you see this information useful / useless)? Have you received the information you indicated in question 2 during this course?
9. Do you consider yourself health literate?
10. To your point of view, do you need to know more about health? How do you plan to receive such information? Do you see the need to life-long education about health? At what age it should start?
11. Do you consider your schools as health promoting institution? In particular, have you seen your teachers’ examples of conducting health / unhealthy lifestyle? Do you assume that all the services which may be needed for promoting healthy lifestyle and good health are included into the school organization (e.g. necessary medical support, physical activity services, psychological support, etc.)?
12. In what ways can the information be communicated more effectively? Would you be interested in a special app about health? Or should it be integrated into some already existing app?
By way of introduction, my name is Viktoryia and I come from Belarus. I came up with the idea of the thesis when reading newspapers from my home country, where introduction of health education was discussed, and some parts of it were seen as not appropriate for children. Thu