Self-reported health and health risky behaviour of Roma adolescents in Slovakia
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Chapter 1

Introduction

This thesis concerns the health and health behaviour of Roma adolescents. The health and health behaviour of Roma were neglected topics in research for several decades. The scarcely available research shows almost uniformly that Roma health is worse than that of non-Roma (Hajioff & McKee, 2000; Zeman et al., 2003), while the background of these differences remains unknown.

Perceptions about Roma people differ from country to country, but certain stereotypes about them are shared in each country. While in some western countries, if the proportion of Roma inhabitants is mostly low, the picture of Roma is often represented by the romantic idea of a nomadic people travelling from one place to another, performing different arts and skills. Examples of these are women with magic skills foretelling the future, young dancing in traditional colourful dresses and compelling musicians or skillful artisans among the male part of the population. In Central European countries Roma are not perceived in such a romantic way. They are seen as poor, dirty and criminal strangers, thieves who avoid work and education, living on social welfare benefits and unwilling to integrate into society (Marcinčin & Marcinčinová, 2009). A recent outburst of Roma demonisation and an anti-Roma campaign took place in 2010 in France, the consequence of which was that several thousand Roma were deported to Romania and Bulgaria (BBC News, 2010).

In the last two decades, the Roma issue has become very salient and has been discussed in many ways (Kósa et al., 2007; Rimarova, 2010). One such initiative is The Decade of Roma Inclusion 2005-2015 which represents a political commitment by governments of 12 European countries to improve the socioeconomic status and social inclusion of Roma. Thus far, however, it has not had any significant effect on the change of the status of the Roma. A crucial element for effective interventions is accurate data. They are difficult to obtain without a systematic study which would penetrate deeply into the Roma community and their culture. This is a demanding job for different researchers, social workers, medical doctors and so on.

A better understanding is needed regarding many areas of Roma life. An alarming situation regarding the health of the Roma people has been found across many European countries, Slovakia not being an exception (Fundación Secretariado Gitano, 2009; Fundación Secretariado Gitano, 2010). The health of the Roma people has become an issue in the last two decades and represents a great challenge for public health authorities (Schaaf, 2010). High quality research is just starting and relevant data are very scarce (Földes & Covaci, 2011).

Our research focused on comparing the health status and health behaviour of Roma adolescents living in poor Roma settlements in the Eastern part of Slovakia with those of non-Roma. We assessed several health indicators such as self-rated health (SRH), accidents and injuries in last 12 months, health care utilisation, substance use, physical activity, subjective and social well-being, antisocial behaviour and the impact of the socioeconomic status, discrimination and social desirability on the ethnicity–health relationship.
Reading guide

This study deals with perceived health status and health-related behaviours among Roma adolescents, who are often omitted from this type of research, and compares their health outcomes with their non-Roma counterparts. The main focus of the study is the ethnicity–health association and assessment of the role of socioeconomic indicators in this relationship. This first chapter provides a literature overview, covers the theoretical background of the thesis, describes the theoretical model used for the study, formulates the study aims and presents research questions and the structure of the thesis.

1.1 Roma minority

Roma people live all around the world, but they are concentrated mostly in Central Europe and the Balkans. Estimates of the total number of the Roma people living worldwide range from 8 to 12 million, with approximately 5.2 million Roma living in Central and Eastern Europe (Brearley, 2001; Fundación Secretariado Gitano, 2010; Hajioff & McKee, 2000; Sepkowitz, 2006; Zeman et al., 2003). They are Europe’s largest minority and the second oldest discernible minority, after the Jews (Brearley, 2001). According to historical records, Roma migrated in waves from northern India into Europe between the ninth and fourteenth centuries (Ringold et al., 2005). Many of them still maintain their somewhat itinerant life and tribal organisation (Zeman et al., 2003).

Roma are extremely diverse, with multiple subgroups based on language, history, religion and occupations. While Roma in some countries are nomadic, most in Central and Eastern Europe have settled over time, some under Ottoman rule and others more recently under socialism (Ringold et al., 2005). Throughout the 17th century, punitive policies were widely adopted, such as restrictions upon trade and shelter, prohibition of traditional dress or the speaking of Romani and restrictions on Roma gatherings. Penalties included death and corporal punishment. In the 18th century, punishments based on ethnicity continued (Hajioff & McKee, 2000).

Their history in the region can be described as a combination of peaceful coexistence and blatant discrimination, with multiple and complex causes, among which are their remarkably preserved traditions and resistance to assimilation (Koupilova et al., 2001). During the 19th century treatment of Roma in society improved, but the theories of eugenics developed at the end of the 19th and especially the first half of the 20th centuries, however, contributed to the extermination of half a million Roma in Nazi camps. Under communism, the state establishment itself did not tolerate Gypsy identity. The Roma language was officially banned, Roma were not allowed to form political organizations, and from the 1950s, nomadism was forbidden and Roma people were forced to settle and to start live in housing, often in poor shantytowns or factory-owned flats. Self-employment was forbidden which resulted in the stopping of traditional Roma occupations (Brearley, 2001). The collapse of communism had major implications for the Roma population, with an upsurge in racist attacks, often with semi-official sanction, in states experiencing re-emergent nationalism (Hajioff & McKee, 2000).

Estimates of the share of the Roma population are between 6 and 9 per cent of
the population in Bulgaria, FYR Macedonia, Romania and the Slovak Republic (Ringold et al., 2005). Census data are intensively disputed, as many Roma do not identify themselves as such on questionnaires. These shares are likely to increase in the near future because of the high population growth among Roma and the decreasing fertility rate among majority populations. Romania has the highest absolute number of Roma in Europe, between 1 million and 2 million. Large populations of between 400,000 and 1 million also live in Bulgaria, Hungary, Serbia and Montenegro, the Slovak Republic and Turkey. Western Europe’s largest Roma populations are found in Spain (estimated at 630,000), France (310,000), Italy (130,000) and Germany (70,000). In total, about 7 to 9 million Roma live in Europe – a population comparable to that of Sweden or Austria. Official censuses have failed to reveal the real numbers of Roma people living in the mentioned regions and countries due to the tendency of Roma to denote themselves as members of the majority or a more favourable ethnic group rather than Roma ethnicity. Being of Roma ethnicity may be perceived as a potential threat in their everyday life.

According to our knowledge, the most realistic estimate of the Roma population in Slovakia is that of the Demographic Research Centre, which indicates that about 380,000 Roma are living in the Slovak Republic, or 7.2% of the total population (Filadelfiová et al., 2007; Reynolds, 2005). Officially only 105,738 citizens declared themselves as ethnic Roma in the Census of the population, houses and flats in 2011 (2.0% of the total population of the Slovak Republic). Other unofficial estimates claim that as many as 750,000 Roma live in Slovakia (Ginter et al., 2001). However, it is widely accepted that the correct number lies between 400,000 and 500,000 (i.e. 8.5% of the Slovak population). The Roma population in Czech Republic ranges from 150,000 to 300,000 (Koupilova et al., 2001). The distribution and proportion of the Roma population in Slovakia is depicted in Figure 1.1.

The age distribution of the Roma population is characterised by a higher proportion of young people and children and a shorter life expectancy than the majority population (Ringold et al., 2005). More than 1/7th of the Roma population are schoolchildren up to 15 years of age (Marcinčin & Marcinčinová, 2009). This resembles a demographic pattern that is typical for populations of economically less developed countries. Roma are characterised by an extremely high degree of territorial segregation, poverty and perceived discrimination (European Union Agency for Fundamental Rights, 2010; Vašečka & Džambazovič, 2000). Furthermore, the Roma population has a low educational level and high unemployment (European Union Agency for Fundamental Rights, 2009; Vašečka & Džambazovič, 2000). Only a rather small proportion (39%) of young Roma in Slovakia continues in education after elementary school (European Union Agency for Fundamental Rights, 2010).

Among Roma we can distinguish three types of habitation according to a UNDP report (Filadelfiová et al., 2007). The **diffused or scattered type** describes a group of Roma who are integrated among the majority population in a town or village; the **separated type** refers to a Roma population concentrated in a certain part of a town or village – either inside or on the outskirts; and finally, the **segregated type** denotes a settlement that is remote from towns and villages or is separated by a barrier. Among these three categories, there is variation in the standard of living conditions, which are best in the diffused or scattered type and the worst in the segregated type. According to the UNDP report, almost 18 per cent of the Roma population in Slovakia lives in substandard conditions. Substandard conditions are apparent in typical Roma settlements (a compound of shanty housing) which are representative of the segregated type of housing and in which a substantial part of the

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1 In the English version of the UNDP report it is referred as mixed type, but the diffused or scattered type captures the content of the category better.
Roma population live (Central Europe, Balkan). Figure 1.1: Proportion of the Roma population living in settlements by district in the year 2004 in Slovakia.

Roma living in substandard conditions are usually compared with average non-Roma. This approach cannot distinguish the effect of the low SES of Roma from the other factors that may influence Roma health status. An efficient design may be in the matching of participants according to their SES. Comparing Roma with socioeconomically deprived non-Roma might yield clearer results and may show the discrepancies caused by the Roma cultural background and not by socioeconomic background. Designing such a form of research is, of course, an even more complicated task, which brings different methodological problems and prevents the fact that researchers tend to accept the socioeconomic contamination leading to selection bias.

### 1.2 Social determinants of health

The health of the Roma people reflects the variation in the standard of their living conditions. The nature of these conditions affects an individual’s health. Not only constitutional factors and an individual’s lifestyle matter, but also social networks, living and working conditions and general cultural, environmental and socioeconomic conditions have a direct or indirect effect on health. A model of the main determinants of health (see Figure 1.2 below) highlights some of the key factors determining the health of populations (Dahlgren & Whitehead, 1992). This model demonstrates that there are several layers of factors affecting an individual’s health. Through modification of these factors, we might improve a person’s health status.

![Figure 1.2: Factors determining the health of populations](source: Dahlgren & Whitehead (1992))

It is a well-established fact that poorer people have worse health and a shorter life span in comparison with those who are better-off (The Marmot Review, 2010). In
addition, people in poorer areas not only die sooner but spend more of their shorter lives with a disability. Such systematic differences in health do not arise by chance, and they cannot be attributed simply to genetic makeup, ‘bad’ behaviour or difficulties in access to medical care, as important as these factors may be. Social and economic differences in health status reflect and are caused by social and economic inequalities in society (The Marmot Review, 2010). The Commission on Social Determinants of Health (CSDH) (2007), set up by the World Health Organisation, concluded that social inequalities in health arise because of inequalities in the conditions of daily life – the conditions in which people are born, grow, live, work and age – and the fundamental drivers that give rise to them are inequities in power, money and resources.

Health inequalities are not inevitable and can be significantly reduced. They stem from avoidable inequalities in society: of income, education, employment and neighbourhood circumstances. Inequalities present before birth set the scene for poorer health and other outcomes accumulating throughout the course of life (The Marmot Review, 2010). The WHO Department of Equity, Poverty and Social Determinants of Health defines health equity as ‘the absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically or geographically’. In essence, health inequities are health differences and are socially produced; furthermore, they are systematic in their distribution across the population, and finally they are unfair (Commission on Social Determinants of Health, 2007).

The framework developed by the CSDH (Figure 1.3) shows how social, economic and political mechanisms give rise to a set of socioeconomic positions, whereby populations are stratified according to income, education, occupation, gender, race/ethnicity and other factors. These socioeconomic positions in turn shape specific determinants of health status (intermediary determinants) reflective of people's place within social hierarchies. Individuals experience differences in exposure and vulnerability to health-compromising conditions (Commission on Social Determinants of Health, 2007).

In societies marked by racial discrimination and exclusion, a person’s belonging to a marginalised racial/ethnic group affects every aspect of their status, opportunities and trajectory throughout the life-course. Roma are mostly known for their low educational status, unemployment, poverty and for living in very poor conditions, especially those who live in settlements. All of these factors result in the very low socioeconomic status of the Roma people. Socioeconomic factors as well as ethnicity and race are often presented in relation to health and health inequalities (Craig, 2005; Lawlor & Sterne, 2007; Macintyre et al., 2003; J. V. Nazroo, 2003; J. Nazroo et al., 2007; van Lenthe et al., 2004). The health status of this ethnic group has only been partially mapped, and in the literature on health only a few publications can be found that are focused on the Roma. Most focus on genetic, biological, medical or anthropological topics and concentrate mainly on infectious diseases or hereditary defects (Koupilova et al., 2001; Zeman et al., 2003). This trend reflects implicitly a conceptualisation of the bad health of Roma as a kind of threat to the majority (Hajioff & McKee, 2000). In addition, there might be other factors related to Roma ethnicity or their culture and habits which might affect their health and are of scientific interest. To the best of our knowledge, no serious scientific attempt to survey these types of variables has been performed.

Ethnicity belongs among the constitutional factors illustrated in the model provided above (Figure 1.2). A fundamental question is whether the effect of Roma
Ethnicity should not be simply reduced to deprivation. There is a debate about the genetic background of ethnic differences in health. It has been found that genetic factors are unlikely to explain all ethnic/racial differences in health (Pearce et al., 2004). Only a few systematic genetic differences exist between races, at least with regard to genes that affect health. In contrast, extensive differences have been shown in the lifestyles and living conditions between Roma and non-Roma. These are likely to contribute highly to ethnic differences in mortality and morbidity and to some extent provide evidence against the importance of genetic factors and for the importance of environmental factors (Pearce et al., 2004).

The concept of ethnicity is neither simple nor precise. It is a complex construct that includes biology, history, cultural orientation and practice, language, religion and lifestyle (Pearce et al., 2004). Ethnicity also implies one or more of the following characteristics: shared origins or social background; shared culture and traditions that are distinctive, maintained between generations and leading to a sense of identity and group; and a common language or religious tradition, all of which can affect health (Lee, 2009; Pearce et al., 2004; Senior & Bhopal, 1994). Ethnicity is a socially constructed phenomenon, and ethnic boundaries are often imprecise and fluid (Senior & Bhopal, 1994). Researchers often draw conclusions about ethnic variations in health status, but they fail to explicate the social mechanisms that make ethnicity meaningful for determining social outcomes, such as educational achievement or income attainment (Lee, 2009).

The available evidence shows that an important part of the poorer health situation of ethnic minorities is due to a lower SES, but this is at least partially due to the bias in focus, because many studies focus mainly on disadvantaged minority groups. Other potential factors that may contribute to ethnic differences in health status are frequently neglected, and that is what makes it impossible to separately assess the explanatory power of SES on ethnic differences. In addition, other factors, such as culture, housing conditions, language problems, discrimination, acquaintance with the situation in the host country and legal status, may add to ethnic differences (Reijneveld, 2010). According to Richardson and Norris (2010), ethnic health differences not only reflect differences in biological vulnerability to disease but also differences in social resources, environmental factors and health care interventions. The review of Nielsen and Krasnik (2010) illustrated that social, cultural and economic factors could explain a significant part but not the full association between poor self-perceived health and ethnicity.

In this thesis, we used the following method to identify Roma ethnicity: Ethnicity was assigned according to place of living. Living in segregated or separated Roma settlements was used as a proxy indicator of Roma ethnicity. People living in separated or segregated settlements exhibit all of the characteristics attributed by the majority population to Roma people.

Ethnicity is separate from SES, or whether low SES is inherent to being a Roma; the former makes adjustment for SES likely, the latter not (Reijneveld, 2010). This thesis is based on the first approach.

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1.3 Roma and Health

A closer look at the Roma population from the perspective of health shows that in general Roma have poorer health on average than the majority (Hajioff & McKee, 2000; Parry et al., 2007; Van Cleemput et al., 2007; Zeman et al., 2003). Despite the fact that studies regarding Roma health are scarce, we can find several that report higher infant mortality rates than among the majority population (the rates are between 2 and 6 and differ within countries) and the shorter life expectancy of Roma (Rosicova et al., 2011; Sepkowitz, 2006). In general, Roma men and women live 10-15 years shorter than their non-Roma counterparts from the same region (Sepkowitz, 2006); they have a higher prevalence of different diseases compared with the majority population, such as coronary artery disease, obesity, hyperlipidaemia, diabetes mellitus, and a more frequent occurrence of health problems/complaints (Sepkowitz, 2006). Published studies on the health of the Roma are often fragmentary and burdened with methodological problems (Hajioff & McKee, 2000; Kelly et al., 2004; Voko et al., 2009).

The health of Roma youth may be compromised by various disadvantages in earlier life periods. Ecological epidemiological studies suggest that the presence of Roma in a district is significantly related to the increased infant mortality in districts in Slovakia (Rosicova et al., 2011). Worse birth outcomes among Roma compared with the average of the majority population have been confirmed by several studies (Bobak et al., 2005; Corretger et al., 1992; Ginter et al., 2001; Rimarova et al., 2004). The incidence of influenza, otitis media, gastrointestinal infections and viral diseases was significantly higher in Roma children up to 2 years of age (Dostal et al., 2010). The higher incidence of hepatitis A and type B as well as lower rates of vaccination against hepatitis B were confirmed in a group of Roma children aged 5 to 15 years compared with their counterparts living in the deprived outskirts of Athens (Michos
et al., 2008). In most cases, during adolescence, the potential for health is retained, and adolescence is the period when important social determinants of health, such as health risky behaviour, inclusion in social networks and through success/failure in the education system and even SES, are formed (Madarasova Geckova, 2005).

Most of the aforementioned results were obtained from samples of adult Roma who differ from the younger members of the ethnic group. There is very little or no evidence on the health of Roma children or adolescents. Information about their health status is crucial for proper intervention and for establishing better health in future generations of Roma adults. Similarly, previous research has mainly been interested in ‘hard data’, and very few studies (Filadelfiová et al., 2007; Kósa et al., 2007) asked respondents to report their own perception of their health status, health complaints or health problems (self-rated health, health care utilisation, accidents and injuries). In addition, there is no clear evidence regarding whether health inequalities of the Roma population are a consequence of social-status or ethnicity per se.

1.4 Health-related behaviour among Roma

Most of the available studies indicate that Roma, compared with the majority population, not only have a worse health status but also an unhealthier lifestyle, implying worse health-related behaviour as well (Hajioff & McKee, 2000; Parry et al., 2007; Ringold et al., 2005; Van Cleemput et al., 2007; Zeman et al., 2003). Roma are characterised as smoking a lot, drinking a great deal of alcohol and living in bad environmental conditions (Gourgoulianis et al., 2000; Petek et al., 2006).

The fundamentals of an adult’s health behaviours are established during adolescence, but information about Roma adolescents’ health behaviours is scarce. Adolescence is generally considered as a critical period (Simões et al., 2008) in regard to health-endangering behaviour and their future consequences (Adger, 1991; Boyle & Maisonneuve, 1995; Calvert & Bucholz, 2008; Cargiulo, 2007; Currie et al., 2008; Devlin & Henry, 2008; Hall & Solowij, 1998; Meltzer, 1994; Newcomb & Carbone, 1992). Adolescents who engage in substance use (i.e. alcohol, illicit drugs and smoking) increase their risk of ill health, having family and school problems, antisocial behaviour and unprotected sexual intercourse (Rodham et al., 2005). Early onset and early initiation into substance use have been highlighted as being specifically important and (potentially preventable) precursors of later problems (Currie et al., 2008). Research on health-endangering behaviours among adolescent Roma is scarce and mostly of low quality. Regarding smoking, a retrospective study by Kosa and co-workers (2007) among Roma adults indicates that Roma start smoking much younger than the general population. Regarding the use of alcohol among young adolescents, Puporka and Zádori (1999) showed that 95% of Roma elementary school pupils had tried alcohol, and 40% of them had been drunk at least once. Studies on alcohol drinking among Roma adults indicate frequent alcohol use, which might be linked with the high alcohol experience in Roma youth (Csépe et al., 2007; Kósa et al., 2007; Ringold et al., 2005).

As for substance abuse, Puporka and Zádori (1999) stated that sniffing is typical for Roma children aged 9-12. Moreover, they summarised a small, methodologically very weak, survey indicating that 25% of interviewed Roma elementary school pupils had already tried drugs (ecstasy, speed, marijuana, hashish). Studies on physical activity among Roma adolescents are lacking, but their lack of activity is often mentioned as...
leading to other health problems such as higher obesity and cardiovascular diseases (Krajcovicova-Kudlackova et al., 2004; Zsidegh et al., 2007). Severe problems among Roma adolescents are indicated, but they are not studied systematically or sufficiently from a methodological point of view.

1.5 Psychosocial health of Roma and discrimination

Data on separate outcomes such as satisfaction with life, hopelessness or social support are lacking on both Roma adults and adolescents. People with a low SES in general perceive their health as poorer, and this association has been shown to be mediated by a number of psychosocial factors such as social support, depression, hopelessness and life satisfaction (Panzarella et al., 2006; Proctor et al., 2009; Stansfeld et al., 1998). However, whether this general association between SES and psychosocial health indicators holds also for Roma adolescents because of their specific culture and living situation remains questionable.

Life satisfaction refers to a subjective cognitive evaluation of overall quality of life (Diener & Diener, 1995; Proctor et al., 2009). It is associated with happiness, achievement of a “good life” and (negatively) with depression (Proctor et al., 2009). A review by Proctor et al. (2009) showed that life satisfaction among adolescents correlates positively with hope, maternal and parental support but negatively with smoking, substance use and many other risky behaviours, including physical fighting. Evidence on ethnic differences in life satisfaction is ambiguous, with some studies reporting clear ethnic differences (Huebner et al., 2004; Lackland, 1998; Verkuyten, 1986), but others reporting only small ethnic differences (Mata, 2002; Proctor et al., 2009).

Social support concerns the resources provided by other people, such as various social networks and relationships (Klineberg et al., 2006). Among both adults and adolescents, social support is associated with positive health outcomes and negatively associated with risk-taking behaviour (Klineberg et al., 2006). Klineberg et al. (2006) report ethnic differences in social support, with associations between social support and health characteristics being similar across different ethnic groups (Whitfield et al., 2003). Evidence on Roma is completely lacking, but social structures among Roma are generally strong (Goward et al., 2006). One explanation is again the transgenerational poverty, when the only value related to being poor is social tightness/social capital, and this is the reason why we may expect social structures to be stronger in this kind of community suffering from that kind of poverty (Payne et al., 2001).

Disadvantaged people, and the Roma are a good example of such people, are more likely to perceive themselves as hopeless to change their own situation and to improve their quality of life and well-being (Bolland, 2003). Such hopelessness is a product of a key belief that the future will yield poor outcomes that one cannot influence and that trying to do so is not worthwhile (Farquharson, 2002). Hopelessness correlates positively with depression, predicts suicidal ideation and attempts and psychopathology in general, and is negatively correlated with self-esteem and social skills (Kashani et al., 1989). Among adolescents, hopelessness is associated with higher levels of risky behaviour, violent behaviours and substance use, and weaker motivation for learning and school activities, thus leading to more problems in school functioning and performance; it also has links to inadequate problem solving skills.
INTRODUCTION

Self-reported health and health risk behaviour of Roma adolescents in Slovakia (Bolland, 2003; Farquharson, 2002).

According to the report on discrimination, Roma are the most discriminated against group surveyed by EU-MIDIS, and this still may be an underestimation, as non-reporting of discrimination is generally high among them (European Union Agency for Fundamental Rights, 2010). Stereotypes about and prejudices against Roma highly influence their status in society and lead to open and covert discrimination by majority populations. Physical attacks by right-wing extremists occur regularly and occasionally result in the death of the victim. Discrimination against Roma also occurs in institutions (Fundación Secretariado Gitano, 2009). A high percentage of Roma report being discriminated in health facilities, and research conducted among medical providers confirms that many hold prejudicial beliefs about Roma. The most frequently reported manifestations of discrimination include: general practitioners refusing to register Roma clients on their rosters, emergency services not responding to calls from Roma communities, health services refusing to treat Roma, verbal abuse, denial of access to medical records and segregation into maternity wards of inferior quality (Schaaf, 2010).

Research suggests that experiencing discrimination may itself be detrimental to health (Richardson & Norris, 2010). Not just exposure seems to be detrimental, but in particular, some types of responses to the exposure seem to have health consequences (Richardson & Norris, 2010). The association of discrimination and health occurs through the mechanisms of stress responses and health behaviours. The perception of discrimination relates to increased physiological stress responses, more negative psychological stress responses and increased participation in unhealthy behaviours (Pascoe & Richman, 2009). The negative effect of discrimination on health has been supported by several studies (D’Anna et al., 2010; Schulz et al., 2006; Todorova et al., 2010; Williams et al., 2008).

The poor health of Roma might also be due to factors other than discrimination, such as their, on average, lower SES compared to the general population (Filadelfiová et al., 2007). People with low SES in general perceive their health as poorer, and this association has been shown to be mediated by a number of psychosocial factors such as social support, depression, hopelessness and life satisfaction (Huurre et al., 2003; Link & Phelan, 1995; Panzarella et al., 2006; Proctor et al., 2009; Roxburgh, 2009; Stansfeld et al., 1998). Given the mostly low SES of Roma, this offers a rather likely explanation for their poor health as well.

1.6 Antisocial behaviour among Roma

Delinquency and aggression are core elements of adolescent antisocial behaviour, which mostly seems to develop on two trajectories. The adolescent limited type usually begins in early adolescence, peaks in middle adolescence and then drops significantly with approaching adulthood. The life-course persistent type begins earlier, in childhood, and the people concerned are engaged in antisocial behaviour at every stage of life (Moffitt, 1993; Powell et al., 2010). Both types of antisocial behaviour burden public health, with the heaviest burden being due to the life-course persistent type (Ruchkin et al., 2003; Vermeiren, 2003).

Juvenile delinquency and aggression constitute a major public health problem due to their impact on the health of both the perpetrators and the victims (Krug et al., 2002; Vermeiren, 2003). Regarding the perpetrators, delinquency and
aggression are associated with illness, particular psychological disorders (e.g. depression), disability and death later in adulthood (Ruchkin et al., 2003; Shepherd et al., 2009). Regarding the victims, delinquency and aggression clearly have negative consequences on health, well-being and society as a whole (Junger et al., 2007; Krug et al., 2002). The public health impact of delinquency and aggression is likely to increase, as prevalence rates have risen since the 1990s in many countries, including Slovakia (McQuoid, 1996; Salagaev, 2004; Šúryová, 2001).

Delinquency and aggression are often perceived to be more prevalent among minorities (Barnes et al., 2002; Hawkins et al., 2000; Jordan & Freiburger, 2010), an example of this being Roma. Roma have been assumed to be highly delinquent and aggressive, with great media attention in several Central European (CEE) countries, including Slovakia (Brearley, 2001; Kušnierz, 2009; Project on Ethnic Relations, 2000; Terenzani-Stanková, 2009). According to Šúryová (2001), Roma criminality exceeds the average level of criminality of the majority population, but their criminality is mostly driven by their bad living conditions. Reliable statistics on the prevalence of adolescent criminality or delinquency among Roma compared with non-Roma do not exist. However, analysis of preliminary data from the HepaMeta study (from a study of Risk factors for viral hepatitis B/C and metabolic syndrome in the population living in Roma settlements, 2011) revealed that almost 11% of Roma male self-reported being arrested less than one year ago and 15% of them were in prison for more than one year, compared with 1.1% of non-Roma reporting being in prison in both categories.

Higher rates of delinquency among ethnic or racial minorities have been reported in regard to the USA (Barnes et al., 2002; Hawkins et al., 2000; Jordan & Freiburger, 2010). Studies on Blacks, Hispanics and Asians in that country show these higher rates to be partially an artefact due to differential risks of arrest for crime (Hawkins et al., 2000), sentences being more severe for these minorities (Jordan & Freiburger, 2010) and levels of verbal and physical aggression being higher than among White counterparts (Kim et al., 2010). Evidence on rates of aggression and delinquency obtained via other sources, such as via self-report, may prevent these biases.
Figure 1.4: Model of the associations examined in the thesis.
1.7 Aims of the study and research questions

Based on the findings acquired mostly from the adult Roma population, the present study focuses on the health of Roma adolescents (in the broader sense of meaning) living in poor segregated or separated Roma settlements. This part of the Roma population is understudied, and thus the assessment of their health compared with non-Roma adolescents is difficult. The general aims of the study were:

- to compare self-reported health status and other health outcome variables (health complaints, accidents and injuries, healthcare utilisation, mental health) in Roma adolescents with those of non-Roma adolescents
- to compare the occurrence of health-endangering behaviours of Roma adolescents and non-Roma adolescents
- to compare the psychosocial determinants of the health of Roma and non-Roma adolescents
- to compare self-reported delinquent and aggressive behaviour of Roma and non-Roma adolescents
- to investigate how discrimination, hopelessness and social support contribute to differences in self-rated health between Roma and non-Roma adolescents
- and to assess the contribution of SES (parental education) and sensitivity to social desirability to the explanation of health differences.

The associations examined within this thesis are shown in Figure 1.4.

Based on the model and the previous literature overview, the following research questions have been developed:

Research question 1 (RQ1):
Do Roma adolescents differ in self-rated health, health complaints, accidents and injuries during last 12 months, healthcare utilisation during last 12 months and mental health from non-Roma adolescents? What is the impact of parental education on this association?

Research question 2 (RQ2):
Do Roma adolescents differ in health-endangering behaviours (smoking, alcohol consumption, drug use, physical inactivity) from non-Roma adolescents?

Research question 3 (RQ3):
Do Roma adolescents differ in psychosocial determinants of health (social support, hopelessness, life satisfaction) from non-Roma adolescents?

Research question 4 (RQ4):
Do Roma adolescents differ in self-reported delinquent and aggressive behaviours from non-Roma adolescents?

Research question 5 (RQ5):
What is the role of discrimination, hopelessness and social support in the contribution to differences in self-rated health between Roma and non-Roma?
1.9 Outline of the thesis

Chapter 1 provides an introduction to Roma health problems, focusing on the lack of data on Roma adolescents. It also includes a more detailed description of the outcome constructs which are studied later in the thesis, such as self-rated health, risky behaviour, psychosocial determinants of health social support, hopelessness, life satisfaction, antisocial behaviour and discrimination. The chapter ends with general as well as individual aims and related research questions. Chapter 2 describes the design of the study, data collection, samples, outcome measures and the statistical analyses used in this thesis. Chapter 3 explores self-reported health status and other health outcome variables (health complaints, accidents and injuries, healthcare utilisation, mental health) among Roma adolescents, comparing them with non-Roma counterparts and assessing the role of parental education and social desirability in the ethnicity – health relationship. Chapter 4 assesses the occurrence of health-endangering behaviours (smoking, alcohol consumption, drug use, physical inactivity) among Roma adolescents compared with non-Roma adolescents, adjusting for the role of parental education and social desirability. Chapter 5 compares the psychosocial determinants of the health of Roma and non-Roma adolescents, such as social support, hopelessness and life satisfaction, adjusting for the role of parental education and social desirability. Chapter 6 compares self-reported delinquent and aggressive behaviour among Roma and non-Roma adolescents, adjusting for the role of parental education and social desirability. Chapter 7 investigates how discrimination, hopelessness, and social support contribute to differences in self-rated health between Roma and non-Roma. Finally, Chapter 8 discusses the main findings and possible implications for practice and future research.