The Value of Social Capital

A cross-sectional study of Swedish high school student’s social capital and its association with lifestyle factors, psychological well-being and academic achievement.

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Abstract

Background: Many of today's young adults suffer from impaired psychological well-being and report suffering from psycho-somatic symptoms related to stress. Lifestyle factors, such as smoking, risky alcohol consumption, lack of physical activity and poor diet are known predictors of ill health and may have long lasting impacts on young people's lives.

Aim: The aim of this thesis was to 1: measure adult high school students' social capital and 2: examine the association between their social capital and psychological well-being as well as the association between social capital and the lifestyle factors; smoking, alcohol consumption, physical activity, diet and academic achievement.

Methods: Questionnaires were used to measure high school students' social capital self-rated psychological health, lifestyle factors and academic achievement. Participants were high school students 18 years and older (n=124) enrolled in Nacka Enskilda Gymnasium and Mörby Gymnasium, two high schools in counties with similar demographic backgrounds, measured in annual salaries, on the outskirts of Stockholm, Sweden.

Results: Total social capital was significantly associated with no less than 6 factors of health; self-rated mental health, self-rated stress, psycho-somatic symptoms, intensive physical exercise, consumption of fruit and membership to a club. In addition, consumption of vegetables and expected grade point average (Grade point average (GPA): final GPA's in Sweden range from 0-20) were significantly associated with individual factors of social capital.

Conclusion: The results of this study support the findings of many earlier studies; that social capital appears to be significantly associated with young peoples' health and well-being. The findings lend weight to earlier studies and contribute to the multitude of voices that lobby for investing in the further development of policies and interventions that aim to increase young peoples' social capital.

Key words
Social capital, lifestyle factors, VIP, mental health, self-rated health, adolescent
Sammanfattning

Bakgrund: Många av dagens unga vuxna lider av nedsatt psykiskt välbefinnande och uppgör att de lider av psykosomatiska symptom som är relaterade till stress. Livsstilsfaktorer, såsom rökning, riskabel alkoholkonsumtion, brist på fysisk aktivitet och dålig kost med lågt intag av frukt och grönsaker är kända riskfaktorer för ohälsa och kan ha långvariga effekter på ungdomars liv.

Mål: Syftet med denna uppsatsen var att mäta vuxna gymnasieelever sociala kapital och undersöka sambandet mellan deras sociala kapital och psykiska välbefinnande samt mellan socialt kapital och livsstilsfaktorerna: rökning, alkoholkonsumtion, fysisk aktivitet, kost och skolprestationer.

Metod: Denna undersökning mätte vuxna gymnasieelever sociala kapital i syfte att undersöka sambandet mellan socialt kapital och: självskattad psykisk hälsa, livsstilsfaktorer och skolprestationer med hjälp av VIPS enkäten och NSW som mäter socialt kapital. Deltagarna var gymnasieelever 18 år och äldre (n = 124) inskrivna i Nacka Enskilda Gymnasium och Mörby Gymnasium, två gymnasier med liknande demografiska bakgrunder, mätt i årslopp, i utkanten av Stockholm.

Resultat: Totalt socialt kapital uppräknade ett signifikant samband med inte mindre än 6 faktorer: hälsa, självskattad psykisk hälsa, självskattad stress, psykosomatiska symptom, intensiv fysisk träning, intag av frukt och medlemskap i en klubb. Dessutom har konsumtionen av grönsaker och förväntade GPA signifikant samband med specifika komponenter av socialt kapital.

Slutsats: Resultaten av denna studie stöder resultaten från flera tidigare studier, att socialt kapital verkar vara signifikant relaterat till ungdomars hälsa och välbefinnande och ger stöd till slutsatsen att det är viktigt att investera i den fortsatta utvecklingen av riktlinjer och insatser som syftar till att öka unga människors sociala kapital.

Nyckelord
Socialt kapital, livsstilsfaktorer, VIP, mental hälsa, självskattad hälsa, ungdomar
Background

Today’s young adults face a multitude of possibilities and challenges upon graduating from high school. An essential condition for many is self-perceived health and the factors that influence the potential predictors of their health. Many of the choices made in childhood and early adulthood may have long lasting effects on their health, some acting as protective factors and others as risk factors. Whether we are born male or female, the socioeconomic status or education level of our parents, the country we are born in, the amount of democracy that country has, how safe we feel in the area we live in, the health care system and socio-cultural conditions are all examples of health determinants that may have profound effects on individuals’ health and well-being. These health determinants influence individual lifestyle choices and health within a plethora of areas and knowledge of these determinants, their effects, risks and protective natures for individuals and children are of utmost importance to public health care workers.

According to recent studies, today’s youth experience inferior mental well being far more often than they did nearly 20 years ago. Between the years 1988-1989 and 2004-2005, the number of youths that reported impaired mental health and symptoms of impaired mental well-being during a given period tripled (Socialstyrelsen 2009a). In addition a rising number of young adults in the age group 16-24 report suffering from impaired mental health as evidenced by increased occurrence of anxiety, insomnia, pain in the musculoskeletal system, fatigue, as well as a reduced ability to work (Socialstyrelsen, 2009b).

While overall drug and alcohol use among young adults has steadily dropped since the 1970’s, recent reports show a rise in drug use among youth (Hvitfeldt & Gripe, 2010) highlighting that preventive measures for alcohol and drug use in connection with mental health status still represent a challenge to public health care workers and society at large (Socialstyrelsen, 2009b).

These health disparities and their association with other factors, such as age, gender, genetics, individual lifestyle factors, social and community networks as well as socio-economic and environmental factors and determinants of health, are well documented (Backhans et al 2004, Baveman, Egerter, & William 2010, CSDH 2008). However, while social health determinants, the arenas and factors that affect peoples’ lifestyle choices and health, as blanketing as they may be, may not
explain all differences in health status and mental well-being among groups or groups within groups.

Health

The term health is used in a variety of settings and its definition varies due in part to the subjective nature of assessing health and tends to have associations with values and cultural norms (Ewles & Simnett, 2005). The World Health Organization (WHO) defines health as “… a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” The importance of health in regard to youth and children is further expressed as “healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development” (WHO, 2008). The Ottawa Charter (1986) states that health is a resource and not a goal as well as health being a concept that emphasizes social and personal resources (WHO, 1988). Aaron Antonovsky, an Israeli born sociologist that gained attention with his studies on stress, health and well-being with his model of “Sense of Coherence” states that health and disease are a continuum, that health and/or disease are neither absolute nor static, that individuals find themselves somewhere in the pendulum and defines health in a similar fashion to the Ottawa Charters’ definition when stating the health is a resource (Antonovsky, 2005). This thesis uses self-rated health to measure health aspects, and as exemplified by the numerous definitions of the term health, presents a challenge when attempting to measure health using subjective data.

The social dimensions of health

Participation and influence in society

The aim of Sweden’s public health policy is to “create social conditions that will ensure good health, on equal terms, for the entire population”. The 11 objective domains are intended to guide authorities and public health workers when establishing policies that may affect health determinants (FHI, 2009).
The first public health objective is “participation and influence in society” and is, according to The Swedish National Institute of Public Health (2009), a fundamental element of health, a view further emphasized by the convention of child’s rights. Article 12 of the convention state that children capable of forming their own views have the right to express them and that the weight of their views are to be taken into consideration in accordance with their age and maturity (Hammarberg, 2006).

Reducing the onset of illness, disease, death or disability through primary prevention is a primary principle of public health interventions. Legislation that reduces tobacco use in public places, improvements in water sanitation, and vaccination programs illustrate this point. This same concept is appropriate for promoting social, emotional and mental health. Children with strengthened social skills that help them to react non-impulsively, have a better chance of making responsible decisions that may promote healthy outcomes (Elias & Weissberg R., 2000).

Non-communicable diseases (Lifestyle related diseases)

The world’s population is aging. At the same time deaths caused by communicable diseases is decreasing due in part to advancements in the medical field. However, the burden of disease from non infective etiologies is rising. Non-communicable diseases, or diseases that are not caused by infection (many forms of cancer, cardiovascular disease, respiratory diseases, diabetes mellitus type II (caused by obesity, poor diets and physical inactivity, alcohol) and substance use, and psychological disorders) are on the rise. It is estimated that by the year 2020, 75% of health burdens will be caused by non-communicable diseases. It is further estimated that 80% of all disability-adjusted life years (DALYS) are lost to these diseases (Lindstrand, et al 2007).

Impaired Psychological well-being

The World Health Organization states that mental illness is one of the two most important public health problems worldwide (World Health Organization, 2006). Mental health is a primary factor affecting health and is fundamental in family/social relationships, well being and positive social contributions (World Health Organization, 2008). According to the Swedish National Board of Health and Welfare (Socialstyrelsen 2009a) impaired mental health is subjectively experienced and self-reported mental disorders that include psychological symptoms such as worry, anxiety and sleeping disorders, are common but undesirable and may increase the risk for developing mental illness/disorders or disabilities (WHO/ICD, 2007, Bell, 2001).
Adolescent’s health in Sweden

*Psychological well-being and stress*

The majority of young adults appear to have either good or very good health according to the Swedish National Board of Health and Welfare (Socialstyrelsen, 2009a), however, 14% of women and 10% of men reported poor health. According to results published in Sweden, today’s youth experience impaired mental well being more frequently than they did nearly 20 years ago. The number of young people aged 16-24, that reported impaired mental health tripled from 1988/1989 to 2004/2005 (for women: 9% to 30% and for young men during that same span, the percentage rose from 4% to 14%). Mirroring those results, the number of young adults suffering from sleep disorders tripled as well during the same time period. Furthermore, 40% of young women in the ages 16-24 reported suffering from physical manifestations of stress in the form of pain in their shoulder, neck and back as well (Socialstyrelsen , 2009a). The effects of stress on psychological well-being are well documented with long lasting stress leading to negative effects on psychological well-being such as burnout or fatigue syndrom (Åsberg, et al., 2010)

*Life style factors and health*

Life style choices and habits developed and fortified at an early age tend to have long lasting effects on an individual’s health. A plethora of factors influence the life style choices adolescents make. Society’s many unwritten moral codes, socially accepted standards and values can be major factors influencing a variety of areas which may affect life style habits. Several life style choices tend to be divided among gender lines. For example the ideal of body image is often different for the men and women which in turn may influence physical activity and nutritional choices. In addition distinctions between the men and women’s choices of alcoholic beverage are also fairly clear (men typically consume more beer while woman tend to consume more wine). While early life style choices may have long lasting effects, habits tend to evolve and can be influenced (Socialstyrelsen, 2009b) with further life experiences.
**Smoking**

It has long since been established that tobacco usage is detrimental for health. According to Lindstrand et al (2007) tobacco smoking accounts for approximately 4% of the world’s burden of disease and approximately 50% of smokers die prematurely as a result of the habit (Peto, Lopez, Boreham, Thun, & Heath, 1994). While smoking in high income countries has decreased somewhat over the last few decades, it is estimated that smoking causes up to 15% of the deaths in these countries. And while overall smoking has decreased, a rise in the number of female smokers is alarming (Lindstrand et al, 2007).

Sweden has seen similar trends in tobacco usage. While the total number of smokers has decreased since the 1980’s, women smokers in Sweden are over represented with estimates that approximately 20% of women and 18% of men in Sweden are smokers (Hvitfeldt & Gripe, 2010). The National Board of Health and Welfare in Sweden (2009) puts those figures at 13% for women and 9% for men, lower yet still high lightening a significant amount of smokers and in line with Lindstrand’s report. This trend is similar in younger ages as well with 11% of girls in the 9th grade smoking in comparison to 5% of boys in the same age group (Socialstyrelsen, 2009a). While figures indicate that the number of young smokers has been declining since the early 90’s, the number of young smokers still represent major challenges for health care works and may have dire repercussions for these individuals and for society in the future.

**Alcohol**

Alcohol consumption is estimated to account 4% of lost DALYS with 120 million people worldwide estimated to suffer alcohol addiction. The consequences of alcohol abuse are well documented with alcohol accounting for hepatic cirrhosis, increased risk taking, accidents and violence to name but a few. Globally, alcohol use has increased to worrisome levels as illustrated by the estimated loss of DALYS (Lindstrand et al 2007).

Sweden has seen a similar development with alcohol consumption rising. In contrast to smoking, women drink less than men, with total consumption for both genders declining with age while risky drinking is seen primarily amongst those between the ages of 16-29 (Socialstyrelsen, 2009a).
Alcohol consumption has risen since the 1990's, peaking for girls in 2005 and while studies have shown that the consumption has dropped somewhat it still remains at higher levels than in the early 1990's (Socialstyrelsen, 2009a). A report from CAN shows that the total percentage of youth that are considered consumers of alcohol, has steadily dropped since the 1970's (Hvitfeldt & Gripe, 2010). While that trend is positive, the reports show that the groups that indulge in “binge” drinking and have risky alcohol habits are still alarmingly high among young men and women 16-29 years of age. Over 20% of men and nearly 10 percent of young women binge drink while nearly 35% of young men and 25% of young women exhibit risky alcohol habits, and while these numbers are lower in comparison to the levels in 1979 (Socialstyrelsen, 2009, Hvidfeldt & Gripe 2010) alcohol still strains public health by being a major factor in regards to violence, accidents, injuries and illness (Socialstyrelsen, 2009).

Clear connections have been made between unsound alcohol use/addiction and psychological problems such as depression and anxiety. Women and men that are addicted to alcohol are two to three times more likely to suffer from these disorders (Socialstyrelsen, 2009a). Connections between unsound alcohol use and ill health, i.e., coronary heart disease (CHD) are well documented as well (Anand et al 2008).

**Obesity, Diet, Physical activity**

It is estimated that 20% of the world’s population is overweight. The overweight or obese, suffer from malnutrition which may lead to shortened life expectancy and higher levels of illness (Lindstrand et al 2007). Overweight or obesity itself is not considered a disease, rather it is multifactoral and leads to other diseases such as hypertension and insulin resistance as well as heart disease and ischemic stroke (Lindstrand et al 2007). Anand et al (2008) came to similar conclusions in their study, identifying obesity and lack of physical activity as modifiable risk factors in myocardial infarction.

Two important factors in combating overweight and obesity are physical activity and healthy diets rich in fruits and vegetables. It is estimated that lack of physical activity alone accounts for nearly 1.3% of lost DALYS while a lack of fruit and vegetable account for 1.8% of lost DALYS (Lindstrand et al 2007). These two factors have the possibility of decreasing the risk of diabetes type II, cholesterol levels, abnormal body mass index (BMI), and lowering the risk of cardiovascular disease. It has even been shown that physical activity in early childhood may have a
substantial impact in preventing other health problems such as age-related pathological fractures (Lindstrand et al 2007).

Sweden has seen an increase in the occurrence of overweight and obesity since the 1990’s with BMI increasing with age. The overall increase in the populations BMI has seen a slight tapering tendency over the past few years according to the latest national health report. Alarmingly however, the largest increase has been among adults in the ages of 25-44. (Socialstyrelsen, 2009a). According to the National Public Health Survey from 2008 nearly 17% of women and 22% of men between the ages of 16-29 are overweight while 25% of women and 43% men are in the age group 30-44 are overweight (Paulson, Karlsson, & Wadman 2008).

Once again, contributing factors to this dilemma lie within physical inactivity and poor diet with physical inactivity accounting for 6% of lost DALYs for men and 3% for women (Peterson, Backlund, & Diderichson, 1999) while a poor diet with too little fruit and vegetable account for approximately 1% of lost DALYS (WHO 2009).

The social determinants of health

Social determinants of health are factors that shape the conditions in which people live, are born, work, the go to school, how they age and influence health through the distribution of wealth, resources as well as power. The distributions of these resources at the global, national and local levels shape the conditions in which people live. Inequalities in health are, to a large degree caused by the uneven distribution of these resources (WHO 2009). While Sweden boasts world class medical care, recent studies have shown that medical care on its own cannot improve health and reduce inequities in health without taking into account social aspects (Baveman, Egerter, & Mockenhaupot 2011, Baveman et al. 2010, World Health Organization 2008). The World Health Organization (2008) further states that social advantages or disadvantages are closely related to health status and that these differences in social inequalities are in fact avoidable, citing poor social policies and programs as a major factor in poor health and that “social injustice is killing people on a grand scale”. Exemplifying the role of democracy in health are the life expectancy rates at birth between various countries. Life expectancy at birth differs dramatically between countries as exemplified when comparing the life expectancy in Sweden (approximately 80 years of age) to Sierra Leone (less than 50 years of age) (Gapminder, 2011). While the main causes of these differences are poverty, AIDS and war (Lindstrand, et al 2007) a correlation between amount of
democracy and life expectancy can be made. Where the amount of democracy is high, life expectancy at birth tends to be higher. (World Health Organ 2008, Gapminder, 2001). Baveman et al (2011) correlate good health to being pertinent to well-being and societal participation.

Education, personal economy and socioeconomic status (SES) are also known to correlate to personal health. Those with higher education levels tend to have better earning potential which in turn facilitates control over life situation and health. Mulatu and Schooler (2002) found that SES positively affects health and that health to a slightly lesser extent, affects SES. Educational level is used to measure social differences in Sweden and associations have been made between lower education levels and higher risks for premature death and illness, furthermore, self-rated health and psychological well-being is higher among those with college education than those with lower education levels as is the level of physical activity (Socialstyrelsen, 2009b). Research has even shown that higher SES is associated with higher rates of physical activity among adolescents (Tuinstra, Groothoff, Van Den Heuvel, & Post, 1998). However, education and economic status alone, while factors that affect health and inequalities in health, are unable to account for all inequities and inequalities in health, especially within groups and researchers have long studied social capital as one of several explanations to explain these inequities in health (Kawachi & Kennedy, 1997).

Social Capital

The term social capital, a sociological and political science concept, was used as early as 1916 in an article written by L.J. Hanifan, a state supervisor of schools, in which he refers to capital figuratively, defining social capital as the summation of goodwill, mutual sympathy, and social intercourse amongst a group of individuals that form a social unit. Social capital can be compared to community building and business organization according to Hanifan. Much like a business benefits from the economical cooperation of individuals to produce a product that improves individuals' daily life, the community benefits from the cooperation of individuals who in turn benefit from help, goodwill and sympathy from their neighbors. When individuals become accustomed to interacting with each other through social activities within the community such as picnics, social capital is accumulated. Through skillful management and organization, sufficient social capital may be used to improve the community (Hanifan, 1916).
Defining social capital

In order to illustrate the breadth and complexity of social capital, a small sample of theories from but a few prominent researchers is presented, with Robert Putnam's theory and definition being used for this thesis when attempting to conceptualize and measuring social capital.

While the concept of social capital has been the subject of countless studies, its definition varies and it is generally regarded as difficult to come to a conclusive definition and interpretation. Its use and implications may differ dependent upon the social science field and researcher defining it.

Pierre Bourdieu (1930-2002) a sociologist, defined social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition". His theory is based on the individual level and states that social networks work much like investment strategies for individuals in which contact networks lead to an accumulation of benefits and obligations which in turn may contribute to support and access to resources, though he attributed the benefits and use of social capital its more privileged groups (Lin, 1999).

The World Bank uses a similar concept for defining social capital as referring to "the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions." (World Bank 2011).

James Coleman (1926-1995) another pioneer concerning the research and analysis of social capital, states that social capital is "defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common" that facilitates productivity and states that social capital can be attributed to any social structure that may aid individuals in accomplishing feats that would not be possible without social capital. He also stresses the importance of family ties and relationship in the community and relationships between groups for building social capital (Coleman, 1988).

Robert D. Putnam, a political scientist, further developed the term social capital and its effects on health and well-being with his research concerning Italy's decentralization of health care, attaining international attention (Putnam, 1996). Putnam defined at that time social capital as "features of social organization such as networks, norms, and social trust that facilitate coordination and
cooperation for mutual benefit”, highlighting social capital’s importance for successful development of institutions, and sighting the importance of a strong sense of community connectedness, a multitude of community organizations/clubs, as well as civil engagement in political movements. Putnam further defines social capital as referring “to the collective value of all 'social networks' and the inclinations that arise from these networks to do things for each other” (Putnam 2000). A more recent study refines the definition as an individual’s sense of fellowship or connectedness and trust for society’s institutions as well as participation in activities within the society, civil engagement and common values, or as he and Helliwell simply put it, “social networks have value” (Helliwell & Putnam, 2004). Just as physical and human capital have value and increase an individual’s productivity, so has social capital attributes that aid in a person’s development (Putnam 2000). According to Robert Putnam, social capital is far from homogenous. He exemplifies this by comparing social capital to physical capital by stating that much like an aircraft carrier and an egg beater are examples of physical capital, they have different purposes are not interchangeable (Putnam 1995) meaning there are inappropriate situations for the effects and applications of social capital. Therefore, social capital can be misused or used ineffectively with deleterious results.

Putnam considers social capital crucial to an individual’s health and well-being, stating that the risk of low social capital is equivalent to the risks that smoking entails for individual’s health and well-being and stating that individuals lacking in social capital are more likely to develop somatic ill health i.e., colds, cardiac arrest and strokes (Putnam, 2000).

According to Putnam, the individually realized benefits of social capital accumulate with exposure and experience. For example, the more trust people show towards each other, the greater their mutual trust will be. Furthermore he states that the positive effects of social capital such as increased daily familiarity and expanding interactive social networks increase with usage. The forms, when fostered and organized are resources that, much like Hanifin’s (1916) example, produce capital that benefits the community and the individual, in short, social capital is a resource for both the individual and community. In his book, Bowling Alone: the collapse and revival of American community (Putnam, 2000), in which he writes about the decline of social participation and how it affects its’ citizens, he further defines social capital partly as an individual’s sense of fellowship or connectedness and trust towards society’s institutions and partly as community involvement, civic engagement and common values that facilitates “coordination and cooperation for mutual benefit” (Putnam, 2000, 1995).
Bonding and Bridging

Putnam distinguishes two types of social capital essential to community development and health: bonding and bridging. Bonding occurs when an individual makes connections with people of the same age, religion, race and so on, or homogenous groups. Bridging occurs when individuals of different backgrounds, ages and so forth forge connections. These two forms of social capital complement each other and are necessary in creating peaceful societies (Putnam, 1995).

Trust

Within the concepts of social capital, two different types of trust can be distinguished; vertical and horizontal trust. Vertical trust refers to trust in the institutions of society and formal networks, while horizontal trust refers to generalized trust in other people (Putnam 1996). Trust, according to Fukuyama is “the expectation that arises within a community of regular, honest and cooperative behavior based on commonly shared norms, on the part of other members of that community.” (Fukuyama, 1995).

Worth mentioning here is a distinction of individual social capital and community social capital or collective social capital. A person with high social capital, characterized by high levels of trust/social participation, is expected to higher levels of health, a comparative result is expected of a community with high levels of social capital. Meaning, a community with high levels of horizontal trust, confidence and trust in fellow citizens and high levels of participation will typically be “healthier” as evidenced by lower levels of crime for example (Putnam, 1996).

Social capital and health: Previous research

Studies imply that social capital has significant connections to health. High levels of social capital, which include high levels of trust in other people, social participation, community engagement and political trust, as well as belief in mutual benefit or reciprocity, have been shown to correlate to higher levels of health (Putnam, 1996, 2000). Conversely, lower levels of social capital have been associated with poor health (Lindström, & Mohseni, 2008, Åslund et al 2010).

Research has shown that social capital has an association to individuals’ health. Individuals with high levels of social capital tend to have resources to help an individual attain health goals (Lin, 1999). These individuals tend to have more access to pertinent information or know where to find it. Furthermore, high levels of social capital may impact risk behavior and provide necessary tools
to encourage health-promoting behavior whereas low social capital leads to an increased risk for risky health behavior such as smoking and binge drinking (Bolin et al 2003). Additionally, a lack of social capital can even have negative psychosomatic repercussions (Åslund et al 2010). Emile Durkheim (1983) concluded that the number of suicides in a society was correlated to the degree of integration in social groups that individuals belonged to. Societies with low participation tended to have higher rates of suicide. Robert Putnam’s (2001) results support Durkheim’s showing that joining a group lowered an individual’s risk of dying within the next year by 50%.

A multitude of studies concerning the possible connections between social capital and various aspects of health and lifestyle factors imply that there are very relevant and significant associations between the two. The Swedish National Public Health Committee highlights the importance of social capital in a report on health inequalities by stating that the first guideline in minimizing inequalities in health is to increase individuals’ social capital (Folkhälsokommittén, 2004).

**Social Capital and self-rated well-being and psychological health**

Several studies have focused on the plausible connection between social capital and mental health. Mohseni and Lindström (2008) found in their study conducted in Sweden, that there was a significant positive correlation between low social capital, (in particular, low levels of trust in parliament, i.e. horizontal trust) and self-rated poor mental health as well as a relationship in another study between low social capital and poor self-rated general health (Mohseni & Lindström, 2008). Åslund et al’s (2010) study of Swedish adolescents presented similar results, finding a significant correlation between low neighborhood social capital and general social trust and higher rates of depression and psychosomatic symptoms, indicators of stress while Helliwell and Putnam (2004) linked high levels of social capital with higher levels of self-rated well-being. Morgan and Haglund’s study mirrored these findings (Morgan & Haglund, 2009) with results showing that adolescents with low sense of family belonging and low involvement in the neighborhood were nearly twice as likely to report poor health.

**Social Capital and substance use**

Ahnquist et al (2006) were able to link risky alcohol consumption with lower levels of horizontal trust within the confines of social capital, showing that a lack of trust in society’s institutions may have detrimental effects on health. Lindström (2008) had reported similar results with his research; those with low social capital were more likely to purchase illegal liquor, in particular, horizontal
and vertical trust deficiencies were strongly linked with the purchase of illegal liquor in Sweden according to his study.

In regards to smoking, significant positive connections were made with enhanced levels of social capital and smoking cessation (Giuseppe & Lindström, 2010) while a cross-sectional study in Japan linked low levels of horizontal trust (an individual factor of social capital) to higher levels of smoking (Suzuki et al 2010). Similarly, individual social status was found to be negatively linked to smoking and drinking among high school students in Japan (Takakura, 2010). While adolescents in a Mexican study reported higher levels of smoking and alcohol when reporting higher self rated social status (Ritterman et al 2009), lending support to Putnam’s statement that high levels of social capital don’t necessarily translate into positive effects. This may be dependent on the particular norms of that society, in the case of Ritterman et al’s study (2009), smoking is a high status behavior.

Social Capital and Physical health

There appears to be slightly less research focusing on the correlation of social capital and self-rated physical health however, the evidence presented by Helliwell and Putnam (2004) suggest that like many other health related factors, there is a significant correlation between social capital and physical health. Bolin, Lindgren, Lindström and Nystedt (2003) came to similar conclusions with their study of approximately 3800 Swedish citizens, linking higher levels of social capital with higher levels of self rated health. Sundquist et al (2006) were able to show a correlation between high rates of coronary heart disease and low levels of social capital in a cohort study of the Swedish population Ball et al (2010).

Social capital and Physical activity and nutrition

In similar fashion to social capital’s effects on other health factors, studies have shown positive effects of social capital on physical activity and nutrition. Duke et al (2010) found that in neighborhoods with high levels of social capital, youth were more likely to achieve normal weight status (measured in BMI) and to be more physically active. Similar associations were made by Ball et al (2010). Morgan and Haglund (2009) found that a higher level of neighborhood involvement was linked to higher consumption of healthy and nutritious fruit and vegetables.
Social capital and academic achievement

While many studies show a correlation between social capital or aspects of social capital and lifestyle factors, and mental health, few studies have focused on high school students' social capital and its association with the above mentioned variables. In addition, to the author's knowledge very few studies have researched a possible connection between social capital and academic performance of high school students, though Putnam (2001) presented evidence that higher social capital was associated with better academic achievement based on SAT-scores (Scholastic Assessment Test), test scores and lower drop-out rates.

Problem description

Given the multitude of social dimensions and determinants of health that play vital roles in adolescents' health and the lifestyle choices they make as well as the large percentages of youth that suffer from various ailments, it is of importance to investigate the associations students' social capital may have with psychological well-being, lifestyle factors and academic achievement.

Aim

The aim of this study was:
To measure high school students' social capital and investigate its association with lifestyle factors, such as smoking, alcohol, diet and physical activity, psychological well-being and self- perceived academic achievement.
Specific questions

Is there an association between social capital and the aforementioned variables and if so, what is the association between high school senior student's social capital and their

  Self rated psychological well-being?
  Self-rated stress?
  Psychosomatic symptoms?
  Lifestyle factors: smoking, alcohol use, physical activity and diet?
  Self-rated academic achievement?

Method
Sample and procedure

The study is a cross-sectional study with data being collected on a two separate occasions in March.

All high school students, (aged 18 and older) were asked to complete a questionnaire during school hours \( n=124 \). The questionnaire includes questions about social capital, life-style factors, self-rated psychological health and well-being, demographic background, and academic achievement.

On the first occasion, questionnaires were distributed to all students 18 years and older that were present, during school hours \( n=89 \) with 100\% participation. The second occasion was the following week when the same classes were re-visited in an attempt to include those that were absent the previous week. The questionnaire was distributed to all students that were not present the previous week, \( n=35 \) with 4 declining to take part. Total participation was 120 of 124 possible, giving a response rate of 97\%. There were 76 males and 43 females with gender being omitted from one questionnaire.

Participants were informed of guaranteed anonymity through an informative (appendix 2) outlying the laws and regulations governing the handling of questionnaires.
Participants

All participants were students 18 years of age and older. The selection of students is based on two factors: The first important element being that the students are 18 years of age or older, facilitating data collection by choosing subjects that are able to give their own consent. The second factor lies on the greater proximity to graduation in the 18 year old subjects being advantageous over younger students with less academic experience. These students tend to have a more realistic and relevant idea concerning their final grades.

The study was carried out at Nacka Enskilda Gymnasium and Mörby Gymnasium in March 2011. Inclusion criteria for the school are based on three factors:

The first factor is the large spread of grade point average for admission. The hypothesis being that larger variation in grade point averages would translate into larger variations of social capital.

The second factor for choosing Nacka Enskilda Gymnasium is and Mörby Gymnasium is the relative homogeneity of average yearly income per household. This attempts to limit the effect of social economical status on social capital.

The third factor for choosing these schools is based on the issue of anonymity and participation. In order to achieve as high a participation rate as possible, the schools chosen are the schools where the author is currently employed at. The questionnaires were not marked in any way that would allow for identification of the participants.

Faculty and principle were informed of the study in February with permission granted upon review of the questionnaire at the beginning of March. The author then met with the potential participants a week before questionnaires were handed out in order to inform them of the study both orally and written. The following week, the questionnaires were handed out by the author to the students during classroom hours. The participants were once again given information about the study both orally and written before filling in the questionnaire. Upon completion, the questionnaires were gathered by the author and place in a cardboard box with lid for safe keeping and transportation. The following week, the author revisited the same classes with the aim of inviting those absent the previous week the opportunity to participate. With help of their teachers, students absent the previous week were able to be identified and invited. The same collection procedure was used and
all questionnaires were then labeled 1-120 after completed collection in order to facilitate input of data.

Arena

*Nacka Enskilda Gymnasium.*

Nacka county is a medium-sized county on the outskirt of Stockholm city. Nacka Enskilda Gymnasium has two academic focuses: Social sciences curriculum with a focus on economics information technology/athletics and social sciences program focusing on social science and IT/athletics. The total number of senior students for the school year 2010-2011 at Nacka Enskilda Gymnasium is 101 and the mean grade point average for admission was 198.5 for 2010. The range of G.P.A. measured in points is in the neighborhood of 60-300 (Marks, 2011). The majority of the students live in or in close proximity to Nacka county where the average yearly income per household 2009 was 318,000 Swedish crowns (roughly 45,000 U.S. dollars) (Statistiska centralbyrån, 2009).

*Mörby Gymnasium*

The total number of senior students at Mörby Gymnasium is 47 with a mean admission grade point average for 2010 of 187.5. The spread of G.P.A. for admission for these students is approximately 80-300 (Karlsson, 2011). The majority of students live in or near Danderyd and Täby counties similar to Nacka in size and proximity to Stockholm where the average yearly income per household for Danderyd 2009 is 427,300 Swedish crowns (approx 61,000 U.S. dollars) and for Täby 342,200 (approx 48,900 U.S. dollars) (Statistiska centralbyrån, 2009) giving an average of approximately 384,750 Swedish crowns (approx 55,000 U.S. dollars) in yearly income when combining the two incomes.

Instrument

A questionnaire based on Robert Putnam’s theory of social capital was developed by students at the University of Technology Sydney and tested in Onyx, Bullen (2000), dubbed the NSW social capital tool, was used to measure social capital.
In an attempt to increase the validity of the measurement of social capital, and using Putnam’s definition and theory of social capital “features of social life-networks, norms and trust” a tool measuring social capital (NSW social capital tool) developed for a study in New South Wales originally, consisting of 36 questions is used (Onyx & Bullen, 2000).

In an attempt at measuring the complex definition of social capital and its multitude of dimensions, the authors of the original questionnaire were able to identify 8 primary factors measuring social capital, similar to SCCBS (which is intended to be used for telephone surveys and is very geographically specific) yet deemed to be more relevant to the intended research group. The identified factors of social capital according to Onyx & Bullen were: A. Participation in the local community. B. Social Agency which refers to the individual’s capacity or willingness to initiate or plan actions/groups. C. Feelings of trust and safety. D. Neighborhood connections. E. Family and friends connections. F. Tolerance of diversity. G. Value of life. H. Work connection, or for the target group of this study, school connections. These identified 8 specific factors combined equate a single general factor, social capital. For detailed information concerning testing and selection of the original questions and validity of questionnaire, please see (Onyx & Bullen, 2000).

The questionnaire used in this study was first modified and then translated from English to Swedish to suit the target group. For example, the question, “Are your workmates also your friends” was modified to “Are your school mates also your friends” and then translated into Swedish. The version used in this study consists of 29 questions measuring social capital. In addition, in an attempt to achieve a larger spread concerning total social capital values and precision, the four point scale (answers to questions were valued 1-4) was increased to an 11 point scale (answers to questions are given a value between 0-10). In an attempt to ensure comprehension of the translated questions, the questionnaire was submitted to a Swedish teacher at Mörby gymnasium and in order to ensure validity of the translate questions, ie that the true meaning of the original question was not lost in translation, the questionnaire was then submitted to the author’s supervisor. The final version was then distributed to non-participating students to identify possible questions needing clarification.

Lifestyle was assessed by the VIP questionnaire which has been tested for reliability in earlier studies (Jerdén, 2007). The original questionnaire consists of 60 questions. The version used in this study is slightly modified, consisting of 39 questions due to the fact that many questions were deemed to be similar to the questions measuring social capital. The questions used in this study for measuring well-being and mental health are questions 3, 4-6, 10-14. Smoking habits are measured with the question, “How often do you smoke” question 32. Risky alcohol behavior is measured with
question 34, "Have you ever consumed so much alcohol that extremely inebriated?" and the factors of physical activity, and nutrition being measured with questions 36-38. Self rated academic achievement is measured by question 39 (When you enrolled in high school, what final GPA did you plan on achieving?) and (What GPA will you in all probability have when you graduate?) (Appendix 2).

Measurements

Gender, whether the participant identified themselves as male (0) or female (1).

Country of birth, whether the participant was born in Sweden (0) Scandinavia (1) Country outside of Scandinavian in Europe (2) Country outside of Europe (3).

Self-rated stress was measured with the question, "Have you felt stressed during the last 3 months? (with stress, we mean, felt stressed, pressed, rushed, a feeling of not having enough time)". Yes, nearly all the time (0). Yes, often (1). No, not very often (2). No, seldom or never. A dichotomous variable was then created with yes=0 and no=1.

Self-rated psychological well-being was measured by asking the participants if they have felt bad. (suffering from impaired psychological wellbeing) Yes, nearly all the time (4).Yes, often (3). No, not that often (2), No, seldom or never (1). A dichotomous variable was then created with yes, often or all the time=0 and no, seldom or never=1.

Psychosomatic symptoms
As a complement to the question concerning psychological well-being, participants were asked to answer questions measuring psychosomatic symptoms where: how often participants experience: 1, Headache. 2, Stomach ache. 3, Back ache. 4, Depressed. 5, Had difficulties sleeping. 6, Felt afraid. Response alternatives were: Often, nearly every day (5), more than once a week (4), approximately once a week (3), approximately once a month (2), seldom or never (1).

Smoking
Smoking was measured by asking participants how often they smoke: Everyday (0). At least once a week but not every day (1). Less than once a week (2). I don’t smoke (3). A dichotomous variable was then created with yes=0 and no=1.
**Alcohol risks**
Participants were asked if they had ever consumed so much alcohol that they'd become very inebriated: No, never (0). Yes, once (1). Yes, 2-3 times (2). Yes, 4-10 times (3). Yes, more than 10 times (4). A dichotomous variable was then created with no or 1-3 times (low risk)=0 and yes= 4 times or more (high risk).

**Physical activity**
Participants were asked how often they work out during recreational hours (meaning outside the school setting) to the point of being out of breath or sweating: Everyday (0). 4-6 times a week (1). 2-3 times a week (2). Once a week (3). Once a month (4). Less than once a month (5). Never (6). A dichotomous variable was then created with “daily or several times a week” =0 and “seldom or never”=1.

**Diet**
Participants were asked how often they ate or drank the following: Fruit, vegetables, Coca cola or other sweetened sodas, candy, chips, and French fries: More than once a day (0). Once a day (1). Every week (2). Seldom (3). Never (4). A dichotomous variable was then created with “Daily or once a day (often)”=0 and “once a week or less (seldom)=1.

**Academic achievement**
Participants were asked two questions concerning academic achievement: 1. What grade point average (GPA) did they expect to earn upon graduation when they started high school? 2. What grade point average do they expect to earn as they near completion of high school?: 0-5 (0). 6-10 (1). 11-15 (2). 16-20 (3).

**Participation in an organization or club**
Participants were asked if they were active members of a club or organization: Yes (0), No (1).

**Social Capital**
Social capital was measured by the summation of the individual total scores of the 8 primary factors identified in Onyx’s (2000) study. Each of the primary factors was measured by adding up the sum of scores for each question. For each question, answers were subjectively rated from 0-10. Total social capital was calculated by adding the total score of the individual 29 questions giving a minimum score of 0 and a maximum possible score of 290. Correlation of coefficient analysis initially focused on the correlation between total social capital scores and variables. When
significant correlations were unable to be identified, correlation of individual factors of social
capital and individual factors were analyzed in similar fashion to earlier studies (Åslund et al, 2010,

A. Participation in the local community
Participants were asked to respond to 4 statements concerning participation in their local
community by rating their answers according 10 point scale. Answers were valued from 0-10 (0= No,
10= Yes, absolutely/often): 1, Some say that by helping others you help yourself in the long run. Do you agree? 2, Are you an active member of a local organization or club (eg, sport, craft,
social club)? 3, Have you attended a local community event in the past 6 months (eg, church fete,
concert, or the like)? 4, Have you ever been part of a project to organize a new service in your area
(eg, youth club, child care,)

B. Social Agency
Social agency here refers to a sense of personal and collective efficacy, or the likelihood or ability
to initiate action. Participants were asked to respond to 6 statements concerning capacity or
willingness to initiate plan actions/groups: 5, Have you ever picked up other people’s rubbish in a
public place? 6, If you need information to make a life decision, do you know where to find that
information? 7, If you disagree with what everyone else agreed on, would you feel free to speak
out? 8, If you have a dispute with your classmates are you willing to seek help from school personnel? 9, At school do you take the initiative to do what needs to be done even if no one asks
you to? 10, During the past few weeks at school, have you helped a school mate even though you
didn’t have too?

C. Feelings of trust and safety
Participants were asked to respond to 5 statements regarding feeling of trust and safety: 11, Do you
feel safe walking down your street after dark? 12, Do you agree that most people can be trusted? 13,
If you notice that someone needs help, would you let them borrow your telephone? 14, Does the
area you live in have a reputation for being a safe place? 15, Does your local community feel like
home? Do you feel comfortable in the community you live in?

D. Neighborhood connections
Participants were asked to respond to the following questions: 16, Can you get help from friends
when you need it? 17, Have you visited or greeted a neighbor within the last week? 18, In the past 6
months have you done a favor or helped a neighbor?
E. Family and friends connections

Participants were asked to respond to the following 3 questions: 19, How many people did you talk to yesterday? 20, Over the weekend do you have lunch/dinner with other people outside your household? 21, When you go shopping in your local area are you likely to run into friends and acquaintances?

F. Tolerance of diversity

Participants were asked to respond to the following 3 questions: 22, Do you think that multiculturalism makes has a positive influence on the area you live in? 23, Do you enjoy living among people of different life styles? 24, If someone that has a different way of life than the majority of the people in your neighborhood, moves into your neighborhood, would they be accepted by the neighbors?

G. Value of life

Participants were asked to respond to the following 2 questions concerning value of life: 25, Do you feel valued by society? 26, Are you satisfied with what you life has meant up till now?

H. School connections

Participants were asked to respond to the following 3 questions regarding their school connections: 27, Do you feel part of the local community where you go to school? 28, Are your school mates also your friends? 29, Do you have a feeling of fellowship at your school?

Data analysis

Internal reliability of the psychosomatic questions and social capital tool respectively were examined using Cronbach’s alpha. Gender differences concerning social capital, psychological health, stress, psychosomatic levels, smoking variables, alcohol variables, nutritional variables, exercise variables, were analyzed with Pearson’s X2. Differences between school’s social capital scores was analyzed with Pearson’s X2 as was the correlation of participation in club and expected GPA.

Spearman’s ρ was used for analysis of correlation of coefficients for correlation between social capital and mental health, self-rated stress, self-rated psychosomatic symptoms, smoking variables, alcohol variables, nutritional variables, self-rated esteem ladder, exercise variables and GPA (Fields, 2009).
All data analysis was carried out with Predictive Analytics Software 18 : PASW 18 (previously called SPSS).

**Results**

*Internal consistency of the psycho-somatic items*
Cronbach’s Alpha was used for measuring internal reliability of the questions concerning psychosomatic symptoms where, $\alpha=0.743$ (a coefficient of $>0.7$ is acceptable and shows a positive correlation between the questions). After analysis of “Cronbach’s $\alpha$ “if deleted” for all psychosomatic variables (Cronbach’s $\alpha$ would have been affected negatively by removing any one of the variables) it is concluded that all items measuring psychosomatic symptoms have a positive correlation with each other with an internal consistency $\alpha=0.743$.

*Reliability of the social capital tool*
Internal consistency of the social capital tool is measured using Cronbach’s $\alpha$, (coefficient of reliability), $\alpha=0.730$ indicating a positive and acceptable internal consistency of the questions concerning social capital.

**Psychological well-being**

Table 2: Shows the percentages of Psychological well-being divided into gender and total.

<table>
<thead>
<tr>
<th></th>
<th>Female (N=43)</th>
<th>Male (N=76)</th>
<th>Total (N=120)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress *</td>
<td>92.9%</td>
<td>66.2%</td>
<td>75%</td>
</tr>
<tr>
<td>Headache**</td>
<td>52.4%</td>
<td>27.3%</td>
<td>35.8%</td>
</tr>
<tr>
<td>Stomachache**</td>
<td>40.5%</td>
<td>23.7%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Backache**</td>
<td>37.5%</td>
<td>29.9%</td>
<td>37.1%</td>
</tr>
<tr>
<td>Dejected**</td>
<td>50%</td>
<td>22.1%</td>
<td>31.7%</td>
</tr>
<tr>
<td>Insomnia**</td>
<td>57.1%</td>
<td>38%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Fear**</td>
<td>19%</td>
<td>2.6%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Impaired Psychological well-being</td>
<td>52.4%</td>
<td>26%</td>
<td>35%</td>
</tr>
</tbody>
</table>

*experienced more than once a week. ** experienced at least once a week.
Psychological Well-being

A total of 35% of all high school seniors reported suffering from impaired psychological health "nearly all the time/often" with 52.4% females and 26% of males reporting impaired mental health "nearly all the time or often".

Stress

75% of all students reported feeling stressed often or nearly all the time. Females are over-represented, with 92.9% of female students reporting feeling stressed "often or nearly all the time" while 66.2% of male students reported feeling stressed.

![Psychological Well-being](image)

Figure 2: Psychological health percentages for males, females and total.

Psycho-somatic symptoms

35.8% of all students reported having headaches at least once a week (52.4% of females and 27.3% of males). 29.4% of all students have stomach aches at least once a week (40.5% of females and 23.7% of males), while 37.1% reported back aches at least once a week (37.5% of females and 29.9% of males). 31.7% of students report feeling dejected once a week or more (50% of female students and 22.1% of males). 45.8% of students reported difficulties sleeping at least once a week (57.1% of females and 39% of males) and 8.3% reported feelings of fear at least once a week (19% of females and 2.6% of males). Results show that the mean score of self-rated psychosomatic
symptom for all participants was 12.5 with a minimum score of 6 and max 27. Females had a slightly higher average (15.02) than males did (11.09).

In addition, a significant correlation (p=0.000, r=-.524) between psychosomatic symptoms and impaired mental health was identified.

Table 1: frequency of Self-rated psychosomatic stress symptoms scores. Psychosomatic symptoms measure with 6 questions. Each answer valued between 5-1 with 5 being often or all the time and 1 being seldom or never (the higher the value—the higher the self-rated problem of psychosomatic symptom of stress.

<table>
<thead>
<tr>
<th>Psychosomatic symptom score</th>
<th>Male n=77</th>
<th>Female n=42</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Max</td>
<td>22</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Mean</td>
<td>11.09</td>
<td>15.02</td>
<td>12.5</td>
</tr>
<tr>
<td>SD</td>
<td>3.97</td>
<td>5.19</td>
<td>4.78</td>
</tr>
</tbody>
</table>

![Graph showing psycho-somatic symptoms](image)

Figure 3: Psycho-somatic symptoms.
Lifestyle

Table 3: Lifestyle factors

<table>
<thead>
<tr>
<th>Lifestyle factors</th>
<th>Women (N=43)</th>
<th>Men (N=76)</th>
<th>Total (N=120)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking*</td>
<td>45%</td>
<td>19.5%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Alcohol**</td>
<td>52.4%</td>
<td>27.3%</td>
<td>35.8%</td>
</tr>
<tr>
<td>Fruit</td>
<td>40.5%</td>
<td>23.7%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Vegetables</td>
<td>37.5%</td>
<td>29.9%</td>
<td>37.1%</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>50%</td>
<td>22.1%</td>
<td>31.7%</td>
</tr>
<tr>
<td>Candy</td>
<td>57.1%</td>
<td>38%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Chips/french fries</td>
<td>19%</td>
<td>2.6%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Physical activity</td>
<td>59.5%</td>
<td>79.2%</td>
<td>64.7%</td>
</tr>
</tbody>
</table>

More than once a week, *once a week or more, **very inebriated 4 times or more

Smoking

A total of 28.3% of students reported smoking on a frequent basis (least once a week or more). 45% of females reported smoking at least once a week of more while 19.5% of males reported smoking once a week or more.

Alcohol (risky alcohol consumption)

A total of 70% of all students reported consuming so much alcohol that they’d been very inebriated 4 times or more. 85.7% of females and 62.3% of males reported being very inebriated at least 4 times or more.

Diet

45.8% of all students reported eating fruit more than once a week (37.7% of females and 56.6% of males) 70.8% of all students reported eating vegetable more than once a week (69% of females and 71.4% of male students). 22.5% of all students report consuming soft drinks more than once week.
(19% of females consume soft drinks more than once a week while 24.7% of male students). 6.7% of all students report eating candy more than once a week (9.5% of female students and 5.2% of male students). 1.7% of all students report eating chips or fries more than once a week (0% of females and 2.6% of males).

Physical activity

64.7% of all students report working out more than once a week (59.5% of females and 79.2% of males).

Social Capital

There were a total of 29 questions measuring social capital with answers given values from 0-10 giving a minimum score of 0 and a maximum possible score of 290. The range of social capital scores was 147 with a low of 122 and a high of 269 (mean=189, SD 30.7). Male students as a group, reported slightly higher subjective social capital (mean=192.2, SD=29.279) than females (mean=181.02, SD=31.903).
Table 2: Social capital score per high school. Social capital measured with 29 questions. Each question answered with a value of 0-10 (with 0 = no, seldom or not at all and 10 being "yes, absolute") (the higher the value—the higher the their score for social capital. Maximum total possible score was 290).

<table>
<thead>
<tr>
<th>Social Capital scores for</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nacka Enskilda Gymnasium</td>
<td>122</td>
<td>269</td>
<td>194</td>
<td>31,042</td>
<td>45,000 U.S. dollars</td>
</tr>
<tr>
<td>Mörby Gymnasium</td>
<td>133</td>
<td>230</td>
<td>178</td>
<td>27,7</td>
<td>55,000 U.S. dollars</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>269</td>
<td>189</td>
<td>30,7</td>
<td>50,000 U.S. dollars</td>
</tr>
</tbody>
</table>

Figure 5: Social capital
Figure 6: Social capital standard deviation/spread

Figure 7: Social capital gender differences in total social capital.
The difference of social capital scores between the two schools was slight and non-significant with Nacka students having social capital scores of ranging from 122-269 (mean=194). Mörby students' social capital scores ranged from 133-230 (mean =178).

The relationship between Social Capital and psychological well-being

*Social capital and psychological well-being*
A significant correlation (p=0.03, r=.198) was found between subjective social capital and the frequency of experiencing impaired mental health (feeling bad). Data clearly indicates that higher subjective social capital is correlated with lower levels of impaired mental health.

*Social Capital and stress*
A significant correlation (p=0.011, r =.230) was found between subjective social capital and the frequency of feeling stressed with higher subjective social capital being correlated with was lower frequencies of feeling stressed.

*Social Capital and psychosomatic symptoms*
A significant correlation (p=0.000, r = -.356) was found between subjective social capital and experiencing psychosomatic symptoms of stress. Higher subjective social capital was correlated to lower levels of psychosomatic symptoms of stress.

The relationship between Social Capital and lifestyle factors

*Social capital and smoking*
No significant connection (p=0.187, r =.121) between social capital and smoking habits was found. However, a significant correlation between *neighborhood connections* and smoking was made (p=0.026, r = .203), with higher levels of neighborhood connections being associated with a lower frequency of smoking.

*Social Capital and Alcohol*
There was a tendency towards a connection between risky alcohol behaviors and low social capital though the correlation did not reach significance (p=0.064, r = -.169).
Social Capital and physical exercise

A significant correlation between social capital and frequency of intense physical exercise was found (p=0.01, r = -0.244) with higher levels of social capital being associated with a higher frequency of working out.

Social capital and nutritional habits

Fruit

Significant correlations were found between higher levels of subjective social capital and higher frequencies of eating fruit (p=0.005, r = -0.254).

Vegetables, soda, candy, chips and French fries

No significant connections were made between total social capital and the frequency of consuming vegetables, soda, candy, chips and french fries. However, after analyzing the individual factors of social capital against those variables, a significant correlation was identified between social agency and vegetables (p=0.036, r = -0.192) with higher levels of social capital being associated with higher frequencies of consuming vegetables.

Social capital and expected Grade point average (GPA) upon graduation when beginning high school (first year of high school).

There was no significant correlation between subjective total social capital and expected GPA upon graduation when starting high school. However, there was a significant correlation between neighborhood connections and expected GPA (p=0.034, r = -0.196) as well as between family and friends and expected GPA (p=0.001, r = -0.293), both signifying that higher levels of subjective neighborhood connections and family and friends were associated with lower expected GPA's.

Social capital and expected Grade point average (GPA) upon graduation when nearing graduation (being a senior in high school).

No significant correlation was found between subjective total social capital and expected GPA upon graduation. However, a significant positive correlation between Social Agency and expected GPA upon graduation was identified (p=0.007, r = -0.249), indicating that higher levels of social agency correlate to higher expected GPA.

Participation in club and expected GPA

A positive but non-significant correlation (p=0.052) was identified between active participation in a club and expected GPA where participation in a club was associated with higher expected GPA.
Table 3: All significant correlations for Social Capital/individual factors of social capital and measured variables.

<table>
<thead>
<tr>
<th></th>
<th>Social capital</th>
<th>Social Agency</th>
<th>Neighborhood connections</th>
<th>Family/ friends connections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\rho$</td>
<td>$r$</td>
<td>$\rho$</td>
<td>$r$</td>
</tr>
<tr>
<td>Mental health</td>
<td>0.030</td>
<td>.198*</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Stress</td>
<td>0.011</td>
<td>.230*</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Psychosomatic symptoms</td>
<td>-0.000</td>
<td>.356**</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Smoking</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Intense training</td>
<td>0.007</td>
<td>-.244**</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Fruit</td>
<td>0.005</td>
<td>-.254**</td>
<td>#</td>
<td>#</td>
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<tr>
<td>Vegetables</td>
<td>n.s.</td>
<td>n.s.</td>
<td>0.036</td>
<td>-.192*</td>
</tr>
<tr>
<td>GPA 1</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>0.034</td>
</tr>
<tr>
<td>GPA2</td>
<td>n.s.</td>
<td>n.s.</td>
<td>0.007</td>
<td>-.249**</td>
</tr>
<tr>
<td>Member in a club</td>
<td>0.015</td>
<td>-.223*</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). n.s. = non significant. "#" = not tested for significance.
Discussion

The most important conclusion of this study is that social capital appears to have value. Total social capital was significantly associated with no less than 5 factors of health; Higher social capital scores were correlated with higher levels of self-rated psychological health/well-being, intensive training and consumption of fruit, while higher levels of social capital were correlated with lower levels of self-rated stress, psycho-somatic symptoms. Furthermore, specific elements of social capital were significantly associated with expected GPA’s. In addition, the identification of a large spread of social capital scores despite the participants having similar socio-economical and education backgrounds was significant, possibly demonstrating that social capital and SES or education levels are not necessarily synonymous. Furthermore, significant correlations of individual factors of social capital (Social Agency, Neighborhood connections and family and friends connections) were identified with other variables of health.

The findings in this study concerning young people’s mental well-being appear to be in line with the findings in the Swedish National Health report from 2009 with approximately 30% of participants reporting impaired mental well-being and nearly 40% suffering from psycho-somatic symptoms. Though the findings concerning stress levels are alarming (92.9% of female and 66.2% of males report feeling stressed often or all the time). This however may be explained by a confounder, namely that at the time of the study, final projects, grades and test were being prepared, possibly explaining the extremely high levels of stress. This theory would appear to be supported by the comparatively lower levels of self-rated impaired mental health, possibly exemplifying Antonovsky’s theory of sense of coherence.

Similarly, smoking rates for males students mirrored national levels with 19.5% of students reporting smoking once a week or more (national figure is 18%). However, smoking rates among female students, as reported here are much higher than national statistics with 45% of females students smoking at least once a week compared to 20% nationally.

The findings for alcohol consumption in this study differ from the National Health Survey in which 35% of young men and 20% of young women have risky alcohol habits. Nearly 70% (85.7% of females and 62.3% of males) reported being very intoxicated more than 4 times. The discrepancy here may be explained by different measurements of alcohol consumption. The national report uses
reported amounts (in liters) consumed while this study asked for a subjective estimate of how many
times the participants had been very intoxicated.

Overall, the study found that students, aside from smoking and alcohol, reported good levels of
nutritional and lifestyle choices. The majority of students consume fruits and vegetables several
times a week as well as are physically active several times a week while at the same time
consuming a minimum of junk food and soda.

Of particular interest were the associations between individual factors of social capital and expected
GPA’s. The significant negative association of “neighborhood connection” and “family and friends
connections” with expected GPA upon graduation when starting high school was unexpected. The
fact that higher levels of “neighborhood connections” and “family and friends connections” have a
negative association with expected GPA when starting high school may have several explanations.
Many students, when making the transfer from middle school to high school leave a familiar social
setting and structure that the prior school provided and may instead rely more on familiar settings
and connections (family and neighborhood) when moving on to high school. These higher levels
would appear in this study to have a negative impact on the student’s own expectations supporting
Putnam’s (1995) theory that social capital does not necessarily translate into positive outcomes.
The finding that higher levels of “social agency” are associated with higher expected GPA when
nearing graduation is of interest as well, possibly implying two things; 1. That social capital, in this
case social agency, can be accumulated. Once the students have become familiar with the school
setting and social interactions with each other, this may lead to what can be interpreted through
these results, as higher levels of social agency. 2. That the importance and reliance on family- and
neighborhood connections is shifted to the social connections that school provides once students
have acclimated, further supporting the theory that social capital can be accumulated. It further
raises another question worth considering: is social capital transferable? A carpenter’s hammer is of
little use in an artist’s attempt to draw much as a pencil to a carpenter that intends to drive nails into
boards is of little use. Is the effect with social capital the same? Meaning, when a middle school
student with an accumulated social capital, transfers to high school, in a new setting, with new
classmates, does the accumulated social capital acquired earlier in a different setting, have value in
the new setting?

Yet, another finding of potential importance is the relationship of club membership with social
capital and expected GPA. While identifying a causal connection between club membership and
social capital is not possible in this study, it’s plausible that social capital may be developed through
participation in a club as reported in a Danish study (Ottesen, Jeppsen, & Krstrup, 2010). In addition, the finding of a positive (though non-significant, Pearson’s X² p= 0.052, ) correlation between club membership and expected GPA when nearing graduation could aid policy makers and politicians in creating public health initiatives aimed at encouraging and facilitating participation in clubs.

Conceptual issues

Defining and measuring social capital

Social capital as a concept or theory has been debated. While Sweden has measured social capital for years, the method used has been called into question. The Swedish National Institute measures social capital with three questions which have been deemed, by research (Stone 2002) as being too limited and likely to be lacking in validity. Of importance for measuring social capital according to some researchers (Lochner, m.fl., 1999) is distinguishing between terms or concepts that are similar and could be thought of as a proxy to social capital such as social support and social networks. According to Lochner et al(1999), social capital should not be a concept based on an individual level but rather on a community level and contends that social capital should be distinguished from individual measures which include social support and networks. In short, they suggest that when measuring social capital, community characteristics should be separated from individual characteristics. They concluded that a single, conclusive definition of social capital was elusive and that several studies use different tools to measure social capital that tap into slightly different aspects of the concept yet overlap substantially when measuring social relations. Their study calls for a further study in which several instruments measuring social capital are administered simultaneously in an attempt to measured shared variance. Social capital is seen by some as an elusive concept that attempts to explain too much with too little and that despite the large amount of research on the subject, social capital fails to provide a unified concept. Yet others argue that the term social capital should be thrown out entirely as it is based on a misleading analogy, namely capital, as it is all too unlike other forms of capital (Solow, 2000) in as much as the characteristics of social capital are not the same as in other forms of capital; for example, social capital depletes if it’s not used. Monetary capital on the other hand does not.

Portes on the other hand, appears to favor a definition of social capital where individuals’ social capital is measured through social connections and material resources that the individual has access to through social groups (Portes, 1998). Yet others have called into question social capital’s explanatory effects even suggesting the interventions at the community level aimed at increasing social capital may be counterproductive (Pearce & Davey-Smith, 2004). Even if one accepts the
concept of social capital, and there is a unified consensus as to the definition, there is the difficulty in identifying the causes, effects, correlations and conjunctions or the so-called circularity of social capital as well as identifying the direction of causality. Do strong social ties lead to efficacy and better health or do successful individuals with good health mediate strong social ties, trust and other factors of social capital?

Even other concepts such as socioeconomic status or educational levels can be argued to have equal or more relevance for measuring individual’s health than social capital due in part to the relative simplicity of measuring levels of education or annual income and their associations to health as well as the large body of work done in those fields. It has long since been established that socioeconomic status is a vital health determinant. However, as this study indicates, education levels and SES cannot account for all disparities especially within groups. Writing off social capital as an important aspect of individuals health due to the lack of a converging definition or difficulty in measuring it, could be seen as lackadaisical. Social capital, while arduous and problematic, is tangible, is essential and has value.

What then can society do to increase social capital? Social capital is partly based on relations between individuals. Granted, a top down approach is has limitations. If a unified definition and measuring tool are accepted by policymakers whereby several constructs of social capital are identified and included in the definition, a multi-pronged approach would be necessary due to the different dimensions and mechanisms of each factor. Policymakers must first target those individual factors and their mechanisms in order to facilitate an accumulation of social capital. In short, a single subvention to example encourage participation in athletic clubs is not enough to build substantial social capital as it does little or nothing for other areas of social capital such as family connections.

Politicians and policymakers cannot force individuals to socialize, both mediating bridging and bonding aspects of social capital, however, policymakers can facilitate these facets through subsidies and economic support to clubs and organizations making it more feasible for those with lesser economic means to take part. Policies encouraging integration in the form of ceasing or limiting the conversion rental properties to private ownership may facilitate social capital. Social capital is promoted through providing individuals the opportunity to meet and socialize and policymakers need to facilitate that in any way they can, be it through ensuring that the areas people live in are well lit to decrease possible feelings of fear and isolation or through well planned
infrastructure so that citizens may travel with ease, thereby further providing the possibility for socialization.

Methodical considerations

Limitations of a cross-sectional study include the inability to draw causal directions between dependent and independent variables meaning, it is not possible to conclude that social capital affects the measured variables or if the variables affect social capital. The only conclusion that can be drawn with cross-sectional studies is whether or not associations can be made. In the case of this study, a demonstration of the consistency of the relationship between social capital and a number health factors was made.

Measurement bias is a risk when attempting to quantify and measure subjective factors such as health, lifestyle factors academic achievement and not least a term as complex as social capital. Though care was taken when choosing and translating the social capital tool for this study the validity of the tool must be questioned. Does it measure what it is intended to measure? According to Onyx’s (2000) test for reliability, the tool used is reliable and “partly validated” in measuring social capital, calculating a Cronbach’s alpha of .84 with over 1000 participants. The Cronbach’s alpha score for internal reliability of the social capital tool in this study α=.730, though slightly lower than that of Onyx’s it appears to support their findings that the social capital tool is reliable. While the instrument appears to be reliable, if a similar study were to be undertaken here in Sweden again, a re-working of the instrument or at least certain questions might aid in a more accurate measurement of social capital. The instrument used in this study was developed for use in both rural communities and outer metropolitan areas of Australia in 2000. While there are certainly many similarities between the two countries, there are bound to be several cultural differences impacting the sensitivity of the instrument. For instance, the question asking participants if they had participated in organizing a new service in the area they live (question 4 of the social capital tool) may lack relevance as indicated by the mean score (answers were valued from 0-10; mean for question 4 was 0.69 SD=2.23) for the target group. The irrelevance of the question in this study may be explained by cultural differences yet may also indicate that development of social media on the internet may have an impact. In 2000, while the internet and World Wide Web was already well established, social forums were still in their infancy with Facebook being founded in 2004. It is possible that today’s youth exhibit social engagement through other means such as starting a group
on Facebook rather than starting a group in their neighborhood. Yet another potentially important aspect that this instrument lacked was a question gauging parental support. While there are questions involving family connectedness, no single question focused directly on parental involvement or engagement in the immediate family, aspects that in many circumstances may have a substantial effect on individual social capital. A social capital instrument that is culturally and demographically sensitive should be of upmost interest for future studies of Sweden’s youth.

Information bias is a relevant risk when conducting epidemiology studies, whether it be from the author in the form of confirmation bias (a tendency to interpret information that confirms a hypothesis) or from participants such as report bias. Without the aid and input of coauthors or researchers, there is a heightened risk of observer bias as well and is difficult to discover. Report bias, when a subject omits information or answers in accordance to what he or she feel the “correct” answer might be, is a challenge and source for information bias when a study relies on subjective data. While contamination or bias is a risk, the number of participants (power) takes precedence. Due to the student’s familiarity with the author and the author having the possibility of informing the students of the study and additionally the students were permitted to answer the questionnaire during school hours, it was proposed that this would equate into higher response rate thus strengthening the results. In order to encourage honesty in answering the questionnaire as well as to ensure integrity, students are guaranteed anonymity. In addition, many participants are aware of the risks of many of the lifestyle factors in the questionnaire and this may influence their responses. Yet another factor that may influence their responses is their relationship to the author despite assurance that all participants are guaranteed anonymity. Meaning there is a risk for under-reporting unfavorable habits and exaggerating healthier ones. These two factors may have an influence on the results and further impact the validity, conclusions and the ability of generalizing the results.

Effect size or the measure of an effect, is relevant for any study when controlling for meaningfulness of statistical significance. Spearman’s correlation coefficient was used to estimate effect size for this given sample. A correlation coefficient of 0 means that there is no effect while 1 or -1 means perfect effect. All correlation coefficient scores for social capital were between .192 and .356, indicating small to medium effects which in turn may give reason to question the generalization of these results (see correlations table) as well as the effect size. While not to be confused with effect size, the greater the sample size in a study, the more reliable the results (Fields, 2009).
Statistical tests are used to make inferences about populations, or the likelihood of generalizing the sample results on a larger population. Statistical Power is the probability that a type II error is avoided (that the null hypothesis is false or in other words, finding a genuine effect). Power is an analysis used to calculate the minimum number of participants required to detect an effect of a given size as well as to make comparisons between parametric and nonparametric tests (Fields, 2009). The number of participants in this study is 120 quite possibly indicating low power. Since effects are harder to detect in smaller samples, increasing the sample size would increase the probability of detecting effects. The question is then, what would happen to the results if there had been 10 times the amount of participants? Would the results possibly be deluded, meaning would there be fewer significant observations? Is there a possibility of a type I error, meaning, despite finding significant associations, due to the relatively low number of participants, is there possibility of a type I error (the error of identifying an effect in the population that isn’t true (Fields, 2009)? While sample size and effect size inherently interact, despite a low number of participants, studies can find significant association without type I and type II errors if the study has enough power. A similar study would possibly warrant a large number of participants as larger sample size does equate to better reliability.

Confounders or variables that are not being tested for that may affect the results of this study may include differences in social-economical status despite an attempt to limit its affect by choosing participants of similar demographic backgrounds (the school with a higher mean of social capita I score was in an area with slightly lower annual income). While most of the students enrolled at the school also live in the county that the school is part of, some students may live in areas with lower annual income levels though these students are few and its affect on results may be marginal. Yet another confounder concerns the results for levels of stress. The percentage of students that felt stressed often or all the time was alarmingly high and much higher than those reported in the national health survey. This however may be accounted for by the time of data collection, namely towards the end of the school year when final projects are nearing completion and final exams are being given.

Conclusion

The most important conclusion of this study is that social capital appears to have value for high school seniors’ well-being and health. While causality cannot be identified, significant associations have been identified.
The results of this study support the findings of many earlier studies; that social capital appears to be significantly associated with young peoples' health and well-being. The findings lend weight to earlier studies and contribute to the multitude of voices that lobby for investing in the further development of policies and interventions that aim to increase young peoples' social capital.

The students in this study exhibit many healthy nutritional habits, are physically active though they report high levels of impaired psychological well-being and even higher levels of stress. A mediating factor in adopting a healthy lifestyle, based on the findings of this report may be high levels of social capital, though as mentioned, causality in studies concerning social capital is difficult to ascertain and not possible in a cross-sectional report.

The findings of this study, despite voices of critics questioning social capital as a valid concept or perhaps because of their voices, warrant further investigation into the concept social capital in order to aid in defining a consensual definition which in turn would aid in designing a valid and unbiased data reporting instrument. In addition, despite the limitations of a cross sectional design, these findings give incentive to further studies of the correlation between social capital and lifestyle factors on a larger scale as well as studies that have the possibility of showing a causal effect. Studies of this type, such as a large cohort, might possibly aid politicians and health care workers to adopt initiatives that may increase an individual's social capital and thereby improve their health, for mutual benefit of both the individual and the society.
References


Appendix

Invitation, VIP and Social Capital Instrument

UPPSALA
UNIVERSITET

Institutionen för Folkhälso- och vårdvetenskap

Information och förfrågan om att medverka i en enkätstudie om sociala nätverk, tillit, normer och hälsa.


Resultatet kommer att redovisas i en mastersuppsats där ingen enskild individ kan identifieras. Uppsatser skrivs inom mastersprogrammet i folkhälsa vid Uppsala Universitet. Handledare för uppsatsen är Fil dr Gunilla Burell vid Institution för Folkhälso- och vårdvetenskap vid Uppsala Universitet.

Villkomen att ta kontakt om du har frågor om undersökningen eller vill ta del av resultatet.

Med vänlig hälsning

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Frågeformulär

De här frågorna handlar om dig, hur du mår, och om saker som kan påverka hur du mår. Svara på frågorna i lugn och ro.

När du gått igenom frågorna lämnar du den till författaren. Frågeformuläret tas om hand av författaren, som har full tystnadsplikt, och ser till att ingen utomstående får reda på hur du svarat.

Det är viktigt att du vet om att det är helt frivilligt att svara på frågeformuläret. En del frågor kan vara känsliga att besvara. Om det är någon fråga du inte vill svara på, så kan du bara hoppa över den.

Lycka till med ifyllandet!
1. Är du pojke eller flicka?
☐ Pojke    ☐ Flicka

2. I vilket land är du född?
☐ I Sverige
☐ I Norge, Danmark, Finland eller Island
☐ I ett annat land i Europa, nämligen............................... 
☐ I ett land utanför Europa, nämligen.............................. 

_Här kommer frågor om hur du trivs och hur du mår. Fyll i den ruta som stämmer bäst!

3. Man kan må bra ibland och dåligt ibland.

_Hur mår du för det mesta?
☐ Jag mår mycket bra
☐ Jag mår ganska bra
☐ Jag mår varken bra eller dåligt
☐ Jag mår ganska dåligt
☐ Jag mår mycket dåligt

_Kommentar:.................................................................................
........................................................................................................
4. Har du **under de senaste 6 månaderna** haft följande besvär?

*(Sätt ett kryss på varje rad)*

<table>
<thead>
<tr>
<th></th>
<th>I stort sett varje dag</th>
<th>Mer än en gång i veckan</th>
<th>Ungefär en gång i veckan</th>
<th>Ungefär en gång i månaden</th>
<th>Sällan eller aldrig</th>
</tr>
</thead>
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<tr>
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<td></td>
<td></td>
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<tr>
<td><strong>Ont i magen</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ont i ryggen</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Känt mig nere</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Haft svårt att somna</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Känt mig rädd</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

5. **Har du under de senaste 3 månaderna känt dig stressad?** *(med "stressad" menar vi att känna sig pressad, jäktad, inte hinna med)*

- [ ] Ja, nästan hela tiden
- [ ] Ja, ofta
- [ ] Nej, inte så ofta
- [ ] Nej, sällan eller aldrig

6. **Har du under de senaste 3 månaderna mått dåligt psykiskt?** *(till exempel blivit mycket ledsen eller väldigt orolig, fått ångest eller blivit nedstämd, sovit dåligt ofta)*

- [ ] Ja, nästan hela tiden
- [ ] Ja, ofta
- [ ] Nej, inte så ofta
- [ ] Nej, sällan eller aldrig

7. **Vet du hur din kropp fungerar?**

<table>
<thead>
<tr>
<th>Ja</th>
<th>Tveksam</th>
<th>Nej</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**Kommentar:** ..........................................................................................................................
8. Brukar du känna att saker och ting som händer dig i ditt dagliga liv är svåra att förstå?
Ja, oftast □ Ja, ibland □ Nej □
Kommentar: ........................................................................................................................................
.........................................................................................................................................................

9. Vill du ändra på något för att må så bra som möjligt?
□ Det behövs inga förändringar just nu, allt är bra som det är
□ Jag skulle må bättre
om .......................................................................................................................................................
.........................................................................................................................................................
.........................................................................................................................................................
.........................................................................................................................................................

10. Tycker du om dig själv?
Ja, oftast □ Ja, ibland □ Nej, alls □

11. Har du under de senaste 3 månaderna upplevt att någon kränt dig?
□ Nej
□ Ja, någon gång
□ Ja, flera gånger
12. Har du under de senaste 3 månaderna upplevt att någon uttryckt sig nedsättande om dig?
□ Nej
□ Ja, någon gång
□ Ja, flera gånger

13. Har du under de senaste 3 månaderna upplevt att någon gjort sig löjlig på din bekostnad?
□ Nej
□ Ja, någon gång
□ Ja, flera gånger

14. Har du under de senaste 3 månaderna upplevt att någon i din omgivning ignorerat dig?
□ Nej
□ Ja, någon gång
□ Ja, flera gånger

15. Har du under de senaste 3 månaderna upplevt att någon uttryckt sig positivt om dig som person?
□ Nej
□ Ja, någon gång
□ Ja, flera gånger

16. Vad tycker du om skolan?
□ Jag tycker mycket bra om den
□ Jag tycker ganska bra om den
□ Jag tycker inte särskilt bra om den
□ Jag tycker inte alls om den
□ Vet ej
17. Brukar dina lärare bry sig om vad du tycker?
   Ja, oftast  Ja, ibland  Nej, sällan
   □           □           □

   Kommentar:........................................................................................................

   ........................................................................................................

18. Tycker du att dina lärare behandlar dig rättvist?
   Ja  Nej
   □   □

   Kommentar:........................................................................................................

   ........................................................................................................

19. Känner du dig underlägsen eller mindre värd än dina klasskamrater?
   Ja, oftast  Ja, ibland  Nej, sällan
   □           □           □

20. Är det pinsamt att tala inför hela klassen?
   Ja, oftast  Ja, ibland  Nej, sällan
   □           □           □

21. Hur duktig tycker du att du är i skolan jämfört med dina klasskamrater?
   □ Mycket duktig
   □ Duktig
   □ Medelbra
   □ Under genomsnittet
22. Tänk dig nu att denna stege är ett sätt att beskriva din skola.

På toppen av steget finns de elever som är mest respekterade, som alla vill vara med och de som har den högsta ställningen.

Nederst på steget finns de elever som ingen respekterar, som ingen vill vara med och de som har den lägsta ställningen.

Var skulle du placera dig själv på denna stege? Fyll i cirkeln som bäst representerar var du befinner sig på steget.

Kommentar: ........................................................................................................
................................................................................................................................
................................................................................................................................

Och så fler frågor om dig själv! Fyll i den ruta som stämmer bäst!

23. Oroar du dig över hur ditt liv skall bli i framtiden?
   Ja, ofta     Ja, ibland     Nej, sällan

   □     □     □

24. Har du planer för hur ditt liv skall bli i framtiden?
   Ja, tydliga planer     Ja, vissa planer     Nej

   □     □     □

25. Händer det att du är ensam, fast du inte vill det?
26. Har du så många kompisar som du vill ha?

Ja, ofta ☐
Ja, ibland ☐
Nej, sällan ☐

27. Har du blivit mobbad under det senaste året?

☐ Jag har inte blivit mobbad
☐ En eller ett par gånger
☐ Några gånger
☐ Ungefär en gång i veckan
☐ Flera gånger i veckan

Kommentar: ...........................................................................................................
.............................................................................................................................

28. Har du blivit kallad ”hora”, ”bög”, eller andra könsord under det senaste året?

☐ Aldrig
☐ En eller ett par gånger
☐ Tre gånger eller mer

Kommentar: ...........................................................................................................
.............................................................................................................................

29. Har du fått ovillkommna kommentarer om din kropp eller ditt utseende på ett sexuellt vis under det senaste året?
☐ Aldrig
☐ En eller ett par gånger
☐ Tre gånger eller mer

Kommentar: ................................................................................................................
................................................................................................................

30. **Har någon tagit på dig på ett sexuellt vis mot din vilja under det senaste året?**

☐ Aldrig
☐ En eller ett par gånger
☐ Tre gånger eller mer

Kommentar: ................................................................................................................
................................................................................................................

31. **Hur ofta känner du dig...**

<table>
<thead>
<tr>
<th></th>
<th>Alltid</th>
<th>Ofta</th>
<th>Ibland</th>
<th>Sällan</th>
<th>Aldrig</th>
</tr>
</thead>
<tbody>
<tr>
<td>...säker på dig själv?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>...utanför?</td>
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<td>...hjälplos?</td>
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</tr>
</tbody>
</table>

_Nu kommer frågor om olika levnadsvanor, som rökning, vad du äter, din fritid med mera._

32. **Hur ofta röker du nu för tiden?**

☐ Varje dag
☐ Minst en gång i veckan, men inte varje dag
☐ Mindre än en gång i veckan
33. **Har du någonsin snusat?**
   - Nej, jag har aldrig snusat
   - Nej, jag har snusat tidigare men gör det inte längre
   - Ja, jag snusar ibland
   - Ja, jag snusar varje dag

34. **Har du någonsin druckit så mycket alkohol att du blivit riktigt full?**
   - Nej, aldrig
   - Ja, en gång
   - Ja, 2-3 gånger
   - Ja, 4-10 gånger
   - Ja, mer än 10 gånger

35. **Är du aktiv i någon förening?** (exempelvis idrottsförening, ridklubb, politiskt ungdomsförbund, scouters)
   - Ja
   - Nej

*Kommentar:*

36. **Hur ofta brukar du träna på din fritid, (dvs utanför skoltid), så att du blir andfådd eller svettas?**
   - Varje dag
   - 4-6 gånger i veckan
☐ 2-3 gånger i veckan
☐ En gång i veckan
☐ En gång i månaden
☐ Mindre än en gång i månaden
☐ Aldrig

37. Hur ofta håller du på med annat som ger motion som ex promenerar, cyklar, åker rullskridskor/inlines, dansar osv på din fritid, dvs utanför skoltid?
☐ Varje dag
☐ 4-6 gånger i veckan
☐ 2-3 gånger i veckan
☐ En gång i veckan
☐ En gång i månaden
☐ Mindre än en gång i månaden
☐ Aldrig

38. Hur ofta åter eller dricker du något av följande? (Sätt ett kryss på varje rad.)
(Mer än, En gång, Varje, Sällan, Aldrig)

<table>
<thead>
<tr>
<th></th>
<th>Mer än en gång</th>
<th>En gång om dagen</th>
<th>Varje vecka</th>
<th>Sällan</th>
<th>Aldrig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frukter</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>grönsaker</td>
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<tr>
<td>Coca-cola eller andra sockrade</td>
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<td>läskedrycker</td>
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<td>Godis</td>
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</tbody>
</table>
Chips

Pommes frites

39. Akademisk prestation

1. När du började på gymnasiet, vad var det för slutpoäng du ville satsa på när du avslutar dina studier?
   □ 0-5 □ 6-10 □ 11-15 □ 16-20

2. Vad är det för poäng du kommer med störst sannolikhet att få när du avslutar dina studier?
   □ 0-5 □ 6-10 □ 11-15 □ 16-20

Ringa in det svaret som passar bäst in på just dig.

A

1. Vissa påstår att genom att hjälpa andra, hjälper man sig själv i det långa loppet. Håller du med?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, absolut

2. Är du aktiv i någon förening eller klubb på din hemort?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, ofta (minst en gång/vecka)

3. Har du varit på något lokalt evenemang i den kommun du bor i det senaste halvåret (tex, kyrkan, konserter eller liknande)?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, flera gånger (minst 3)

4. Har du deltagit i ett projekt för att starta upp en ny tjänst i det område du bor i (t.ex. ungdomsgård/klubb, barnanpassning)?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, minst 3 ggr

B

5. Har du någon gång plockat upp och kastat i en papperskorg någon annans persons skräp på en offentlig plats?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, väldigt ofta

6. Om du behöver speciell information för att fatta ett viktigt beslut i ditt liv, vet du var du kan få den informationen?
   Nej 0 1 2 3 4 5 6 7 8 9 10 Ja,
7. Om du tycker annorlunda än alla andra i en fråga, kan du säga det till de andra?
   Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

8. Om du haft en konflikt med en klasskamrat, kan du tänka dig att söka hjälp hos skolpersonalen?
   Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

9. Tar du initiativ i skolarbete för att göra det som måste göras, t ex i grupparbete, även om ingen ber dig att göra det?
   Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, ofta

10. Under de senaste veckorna, har du hjälpt en klasskamrat trots att du inte har varit tvungen till det?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, flera gånger (minst 5

   C

11. Känner du dig trygg när du går på en gata där du bor när det är mörkt?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, helt och hållet

12. Tycker du att det går att lita på de flesta människor?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

13. Om du ser någon som behöver hjälp, skulle du låna ut din telefon?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, helt och hållet

14. Har området du bor i ett rykte om sig att vara tryggt?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, i hög grad

15. Trivs du i det område du bor i?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, mycket bra

   D

16. Kan du få hjälp av dina vänner när du behöver det?
    Nej 0 1 2 3 4 5 6 7 8 9 10  Ja, absolut
17. Har du hejat på någon granne den senaste veckan?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja

18. Har du hjälpt en granne med något de senaste 6 månaderna?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, ofta (minst 5 gånger)

E

19. Hur många människor pratade du med igår?  
   Inga alls  0 1 2 3 4 5 6 7 8 9 10  Många (minst 10)

20. Äter du tillsammans med någon utanför din familj på helger?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, nästan jämt

F

21. Träffar du ofta någon vän eller bekant när du handlar i någon affär i området du bor i?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, nästan jämt

E

22. Tycker du att mångkulturalism är en positiv faktor i ditt bostadsområde?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

G

23. Tycker du om att leva bland människor som har olika livsstilar?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

G

24. Om någon som lever på ett sätt som är ovanligt och annorlunda än de flesta i ditt bostadsområde flyttar in på din gata, skulle den accepteras av övriga grannar?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, absolut

G

25. Känner du att du är viktig för samhället?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, i hög grad.

H

26. Är du nöjd med ditt liv hittills?  
   Nej  0 1 2 3 4 5 6 7 8 9 10  Ja, mycket

H

27. Känner du att du har en gemenskap med andra i det område där du går i skolan?
28. Är dina klasskamrater också dina vänner?

Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, i stor utsträckning

29. Har du en känsla av samhörighet i skolan?

Nej 0 1 2 3 4 5 6 7 8 9 10 Ja, i hög grad

Stort tack för att du har tagit dig tid och fyllt i frågorna!