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# Livelihood and physical activity among Finnish higher education students

University of Jyväskylä Department of Sport Sciences Master's Thesis Spring 2013

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# UNIVERSITY OF JYVÄSKYLÄ Department of Sport Sciences

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#### **ABSTRACT**

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Studies have shown that there is a link between one's socio-economic status and physical activity in Finland. However, the results of studies regarding the link among young adults have been ambivalent. The purpose of this study was to examine the link between the livelihood of higher education students and physical activity in Finland. Another aim was to describe how the possible interrelation would vary within the background variables of gender, age, educational sector, family composition and study place. Finally, the impact of employment on higher education students' physical activity was examined in the study.

Quantitative methods were applied. The study utilized the data collected for the Student Health Survey 2008: a national survey among Finnish university students. The sample comprised 9, 967 students. The statistical analysis included cross tabulations and the statistical significance was revealed with the Pearson's chi-squared test. SPSS version 20 was used for data analysis.

The results indicated that students' own perception of their livelihood seems to be linked with engagement in leisure-time physical activity. The students who reported to experience financial difficulties were more likely to report fewer leisure-time physical activities. The results indicated also that the students who were employed had a slight tendency to engage in leisure-time physical activity more than those who did not work. However, students' physical activity levels varied considerably within different background variables classes.

The principal conclusion was that students' own perception of their livelihood seems to be linked with leisure-time physical activity, but is also influenced by the stage of life and lifestyle choices of the students.

**Keywords:** Physical activity, higher education students, livelihood, employment

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#### 1. INTRODUCTION

Physical activity is an important leisure-time activity in Finland (Zacheus 2008a, 38). In comparison to other European Union nations, Finns among other Nordic nationalities and Dutchmen have been discovered to be most physically active in the Union (Special Eurobarometer 334/72.3, 8). Yet, approximately one third of 16-18 year-old adolescents, a significant proportion of higher education students and approximately half of the working aged adults are not physically active enough to gain the health benefits from physical activity (Husu, Paronen, Suni, Vasankari 2011a, 20 & 30; Miettinen and Kunttu 2011, 199).

Understandably, physical activity behaviour has been examined quite a lot in Finland. National sports studies have investigated e.g. preferences over different sports in Finland, physical activity environments and the level of physical activity as such. The interest towards physical activity behaviour has been wide since scant physical activity and inactive lifestyle have been proved to be connected with different national diseases such as musculoskeletal condition, cardiovascular diseases and diabetes mellitus (WHO 2012). Scant physical activity and inactive lifestyle become costly to Finland annually. It has been roughly estimated that in year 2007, physical inactivity resulted in costs of 700 million euros through diabetes mellitus (Husu et al 2011a, 9).

There are several things that influence on a person's physical activity behaviour. The researches have indicated that environment, socio-cultural and economic factors, personality and urban structure among the others, have been associated with physical activity (e.g. Trost, Owen, Bauman, Sallis, Brown 2002; Broberg, Hynynen, Iltanen, Kyttä, Paronen 2011). In addition, different stages of one's life-span have also been shown to alter physical activity behaviour (e.g. Zacheus, Tähtinen, Koski, Rinne, Heinonen 2003). Besides it is common knowledge that physical activity behavior is also connected with the demographics such as the gender, age, educational status, marital status and the place of residence. Thus, it has been noted often there is not one reason for physical activity or inactivity, but the behaviour can be attributed to a complex set of factors (Trost et al., 2002).

Nevertheless, notion that the physical activity behavior is often related to a complex set of different and simultaneously affecting factors, has not driven off the researchers, but rather has played an important part in the expansion of the research area. More and more different theoretical approaches have been utilized in the field in order to produce knowledge related to the factors either encouraging or inhibiting physical activity. In today's society, sports sociology has become the main research area for understandable reasons. People are not equal in society and this has a direct effect also on health behavior including physical activity. Even though in the world wide context, equality issues are in rather a good shape in Finland, yet the differences in the income levels and dispersed habitation have been shown to cause inequalities in regard to physical activity also in Finland.

International and national investigations have shown that a person's socio-economic status is associated with physical activity (e.g. Nocon, Keil and Willich 2007; Gidlow et al. 2006; Borodulin, Mäkinen and Prättälä 2010). The socio-economic status describes a person's income, occupation and educational attainment or a combination of these. The results from the studies in relation to socio-economic status and physical activity have been variant and sometimes even conflicting. For example, a low income has been associated with lower levels of physical activity whereas the higher educational attainment has been indicated to correlate with higher levels of physical activity (Nocon, Keil, Willich 2007). Furthermore, some studies have identified additional association such as an association between parent's socio-economic status and adolescents' later physical activity behavior (Husu et al. 2011a, 58).

An extensive study on the trends and explanations for socioeconomic differences in physical activity in Finland has showed a statistically significant association between household incomes and both leisure-time and commuting physical activity (Mäkinen 2010, 47-58). However, controversial findings claim that young adults' physical inactivity in Finland cannot only be related to the socio-economic status of these people but rather is explained by many other factors such as situations in life and work, and other health related habits (Rovio et al. 2009, 32). The number of higher education students in Finland in 2009 exceeded 300 000 (Tilastokeskus 2011). The majority of the higher education students are young adults whose period of higher education studies is characterised by the experience of scanty livelihood (Viuhko 2006, 21 & 68). Yet, the

studies connected with the relationship of livelihood and physical activity among higher education students in Finland are next to nothing.

The examination of the relationship of higher education students' livelihood and physical activity is important for at least two reasons. In connection with a renewal of the university and university of applied sciences laws, Finnish Parliament obligated (16.6.2009) the Finnish government to monitor how the higher education institutes provide sports services for their students and to take measures to further the service production if considered necessary. In regard to the higher education students' physical activity, a quality research creates a sustainable foundation for provision of quality services. Furthermore, there have been some indications on the association between physical activity and progress in studies, even though there is no clear evidence of the causation (Miettinen and Kunttu 2011, 198). When the funding of the universities is connected with the number of graduated students, it is essential to concentrate on the well-being of the students and the production of the knowledge which can facilitate the provision of the well-being services.

The purpose of this research is to explore the interrelation between livelihood of the higher education students and physical activity in Finland. In addition, the research strives to explore the possible influence of work on the equation. Due to the data and settings of the research questions, the study focuses on exploring an interrelation between students 'own perception of their livelihood and physical activity. The study utilizes two different, but compatible frames of references. Physical activity is explored in the context of sociology and sociology of leisure, whereas the influence of a student's socio-economic status on physical activity is explored in the context of sociological inequalities in regard to health related behaviour.

#### 2. CONCEPTUAL FRAMEWORK

Sociology examines society and individuals as members of the society. Sociological research derives from the relationship of the individuals and the society, and is often founded on the observations about individuals' behaviour and their interrelated relationships. However, the society cannot ever truly be isolated from individuals' behavior. All societies have regularities and established customs such as groups, interaction systems and classes among others. Although these are embodied in individuals' behaviours, yet they are also independent from individuals. (Allard 1983, 11-12.) This idea is the core to this research; how society and its regularities influence individuals' behaviour, in this case students' engagement in physical activity.

Even though the interrelation of society and individuals is the core of this master's thesis, the matter is not univocal. First, a modern society has unique features that cannot be disregarded in the examination of the matter. Second, physical activity is an activity which often takes place on one's leisure-time. Thus it is important to consider individuals' and society's relation to leisure-time. Third, it should be recognized that certain regularities and established customs create inequalities in the society. These three issues form the basis of the theoretical framework of this study. The chapter progresses from the principles of sociological behavior to addressing the perspectives related to leisure-time, and finally takes a peek to the social epidemiology and theories related to it.

#### 2.1. Principles of sociological action

Sociological research often strives to explain social behaviour or variation in the sociological phenomena by the factors appearing in the social environment. These factors can be e.g. the sociological structure prevailing in the society, social status or religion, just to name a few of them. Nevertheless, sociological research also acknowledges the impact of the physical environment and biology on social behaviour. For example, natural conditions and biological factors can sometimes override other factors of the social environment simply by posing such restrictions that the influence of other factors on a person's behaviour is diminished. (Allard 1983, 20-21.)

Aside biology, some sociologists have also applied some features of evolutionism to explain human behaviour in the society. A union of evolutionism and sociology has mainly focused on emphasizing evolutionistic views of the development of a society. The key here is that evolution exists also within social life and culture, which means differentiation and transformation from simple to more complex social forms. (Allard 1983, 22–23.) It could be argued that intersection of evolutionism and sociology can be reflected in the concepts of modern and postmodern societies. Evidently the transformation from the pre-modern society to modern society and onwards to postmodern society has also affected individuals' physical activity behaviour. Heiskala (1995, 11-12) has named six special features, which he connects with the modern society: 1) industrialisation 2) separation of economic and political spheres 3) marketing-oriented economy 4) states ruled by the law 5) bureaucratic government machinery, and finally 6) structural change in communication environment. The impact of these six features on physical activity in Finnish society will be discussed in detail in chapter three.

When social behaviour is discussed, the relativity of culture should not be ignored. Phenomena and their "normality" vary from one culture to another (Allard 1983, 24). In regard to the research of physical activity behaviour, it is particularly important to consider the impact of culture, since physical activity behaviour is often embedded in physical culture, which varies greatly between different nations. In postmodern society where most countries can be considered to be the melting pots of multiculturalism, it is even more important to investigate the cultural influence on physical activity behaviour.

Judging by the above mentioned arguments referred to by Allard (1983), it could be deduced that social behaviour is composed of the complex set of interrelated factors to which priority to the social behaviour is changed depending on the situation. Yet this complexity of the combination of factors does not prevent Allard (1983) from attempting to explain humans' behaviour. Allard (1983, 27) has divided the factors that can be utilized to explain human behaviour into two different categories: 1) physical factors and 2) factors related to a symbolic environment. In addition, he points out that also biological prerequisites are often referred to as explanatory factors.

The division by Allard (1983) is natural and corresponds to everyday experiences, yet it is also problematic and should be considered with care. The essential aspect is to recognize that people belong to different social systems, which are formed by the joint influence of the factors belonging to physical, symbolic environment and biological prerequisites categories. These social systems, such as societies and groups can be different in strength and unity. Similarly, social behaviour of an individual in a society can be very different depending on the strength and unity of the society that social behavior takes place. (Allard 1983, 27–28.)

In summary, humans' behaviour in society is determined by the intersection of several concurrently influencing factors the power relations of which are determined by the situation. The behaviour is also affected by the strength and unity of a group. Societies are evolving and thus behaviour is affected by the state that the society is at present. Furthermore, one can never truly understand a person's behaviour without knowing his past. The association between higher education students' perception of their own livelihood and physical activity is investigated using these starting points. The inequalities in regard to the availability of physical activity services are believed to be due to the regularities prevailing in the society. Transformation to the modern society has even strengthened these inequalities, and this has led to a situation where coping financially in more important than ever. Rojek et al. (2007), researchers in the field of sociology of leisure, have also argued about essential impact of social and economic transformation on leisure-time. Where past leisure-time related researches have leaned on the idea that leisure-time is something apart from the work-related obligation and therefore should be reflected within the idea of the freedom of choice, today it has been acknowledged that a person's freedom of choice is constrained by the restrictions that have evolved in the societies during social and economic transformation (Rojek, 2005).

However, there are many concurrent factors influencing human's behavior and thus it is recognized that any of the concurrent factors can override the influence of livelihood on physical activity. Physical activity is a diverse concept. It is very common leisure-time activity among Finns and as a result it would be easy to construct the theoretical framework of this master's thesis on the references how the social action is constructed. However, physical activity is more than mere leisure-time activity. The health effects of physical activity have been widely recognised for decades now. Therefore, it is

important to examine the consortium of physical activity and livelihood also from the perspective which provides understanding of the factors affecting a person's health-related choices. Social epidemiology offers a good framework for this purpose.

# 2.2. Social Epidemiology

Social epidemiology examines the social distribution and social determinants of states of health. Social epidemiology stems from epidemiology and thus has been called a branch of epidemiology. (Berkman and Kawachi 2000, 6.) Social epidemiology is especially centred upon discovering the determinants which can explain the social inequalities in health. Three major theories have been applied to seek explanations of social inequalities in health. These are (1) psychosocial, (2) social production of disease and/or political economy of health, and (3) eco-social theory and related multi-level frameworks. (Krieger 2001, 668-669.) As the scope of this master thesis lies in the significance of economy to a health-related behaviour i.e. physical activity, it is worthwhile to take a closer look at two latter mentioned theories applied in the social epidemiology: the social production of disease and/or political economy of health and the eco-social theory and related multi-level frameworks.

The theory of social production of disease/political economy first arose as a criticism toward theories which emphasised individuals' freedom to select a "healthy lifestyle". The starting point of the criticism was that one's free will is constrained by structural barriers such as economic and political determinants. The new orientation proposed that the determinants of health ought to be analysed in the context of who benefits from specific policies, at whose cost. Thus the underlying hypothesis was that by creating, enforcing and perpetuating economic privilege and inequality, the economic and political institutions are the cause of social inequalities in health. In the end it all boils down unequal power relations. (Ibid.)

The eco-social theory and the related multi-level dynamic perspectives approach inequalities in health with a broader viewpoint. The theory and its terminology are multidimensional and dynamic, just like the society today. The framework includes the term "ecological" or the prefix "eco" due to the key foundation of the theory: the study related to evolving interaction between living organism and inanimate matter over time

and space. The purpose of the theory is not to neglect the social analysis by any mean but rather invoke a broader perspective. (Krieger 2001, 671.)

The eco-social construct minimally includes four concepts: (1) embodiment, (2) pathways of embodiment, (3) cumulative interplay between exposure, susceptibility and resistance, and last (4) accountability and agency. The embodiment refers to the idea that there can be no understanding of our biology without the knowledge of history, also in regard to individual and societal ways of living. The pathways to embodiment can be understood as the trajectories of biological and social development. The cumulative interplay between exposure, susceptibility and resistance illustrates the cumulative effect at multiple levels (individual, neighbourhood, regional and national) and in multiple domains (e.g. home, work, school and other public settings) and is manifested at multiple scales of time and space. Finally, accountability and agency describe the ideology that epidemiological studies should consider the benefits and limitations of the particular scale and analysis applied. (Ibid, 672.)

The theoretical foundation of this master's thesis is constructed on the principles of social action and the theory of social production of disease/political economy of health. The theory of social production of disease/political economy of health implies that people are restricted with their healthy lifestyle choices by economic and political determinants. Thus it provides direct support for the main idea of this study that economic inequality affects peoples' health behaviour choices, in this case physical activity. Even though the eco-social theory does not serve as a direct theoretical framework for this study, it is recognised as the factor which mirrors well the complexity of the life in the present societies. In other words, it would be inadequate to examine inequalities in health only by assuming that political and economic power can contradict all other layers and dimensions in the society.

# 2.3. Summary of the chapter

Human's behaviour in the society is affected by a complex set of physical and biological factors and factors related to symbolic environment. The behaviour is also affected by the strength and unity of the group that a person belongs to. The significance of the individual factor for the behaviour is alternated by the situation. Leisure studies have examined leisure-time behaviour in the context of restrictions

posed by the society. The freedom to make one's own choice in regard to leisure-time activity is influenced by the social and economic transformation in the modern and postmodern society. This same also applies to health-related behaviour to which physical activity has been categorised to belong.

On the other hand, the eco-social theory and the related multi-level dynamic perspectives remind the researcher that one should not ignore the cumulative influence of the multiple levels and the multiple domains in the society. Thus it would be presumptuous to investigate the interrelation between higher education students' perception of their own livelihood and physical activity without keeping this in mind. Physical activity behaviour is by no mean a simple issue. A person is rarely active or inactive due to one single factor. The following chapters will present this complexity.

#### 3. PHYSICAL ACTIVITY AMONG FINNS

Physical activity behaviour of Finnish population has interested the Finnish scientific community for several decades now. A systematic research was initiated in the 1970s when plenty of studies regarding physical activity behaviour of children and youth, adults and special groups were published. The themes of sports science research were strongly affected by political directing that the society implemented for the universities and some other scientific communities at that time. (Telama and Vuolle 1986, 45.)

Even though many things have changed in the society over the past four decades, it could be argued that society's prevalent attitude to physical activity and sports has remained as a guiding factor for sports science research through decades. The development of the affluent society and the changes in the political atmosphere have played a significant part in influencing attitudes to physical activity and sports. At the end of the 1900s, sports science research in Finland was mainly focusing on popular activities, but in the early 2000s the focus has broadened on clarifying question of why particular people are physically active or inactive and on the health benefits of physical activity. Understanding the concept of physical activity has widened and the significance of physical activity's social role has been highlighted (Koski 2009, 17). Without any doubt, these changes in society's attitude toward sports and physical activity have also affected on physical activity behaviour of Finnish people.

The physical activity level of Finns is widely acknowledged in Europe. According to Special Eurobarometer 334/72.3 (2010, 8) concerning sports and physical activity in Europe, the citizens in the Nordic countries and the Netherlands are the most physically active in the EU. However, when the number of people who take part in regular exercise is examined, Finland falls far behind the peak of the scale. When 44% of Latvian citizens are reported to be active regularly, in Finland the corresponding number is only 29% (Special Eurobarometer 334/72.3 2010, 15). At the same time, recent reports from Finland indicate that the recommended level for health enhancing physical activity is met with poorly and that the level of unfit men under 40 years of age are increasing (Husu, Paronen, Suni, Vasankari 2011b; Heiskanen, Kärkkäinen, Hakonen, Tammelin, Havas 2011).

This chapter will focus on physical activity among Finns. The chapter has been divided into three interrelated sections with the purpose of opening up physical activity behaviour among Finnish higher education students more broadly. The first section explores the terminological issues that a researcher is confronted with the term physical activity. The second section enters into physical activity behavior of higher education students in Finland and mirrors it against the general features found in physical activity among Finnish adults. The last section takes a look at the complex consortium of the society, physical activity and physical culture and how the changes in the Finnish physical culture over the years have contributed in creation of inequalities in accessibility of physical activity services in Finland.

### 3.1. Problematic nature of physical activity

Physical activity can be perceived in many different ways. Caspersen, Powell and Christenson (1985, 126) define physical activity as "any bodily movement produced by skeletal muscles that result in energy expenditure". This definition of physical activity does not make a difference between different types of activity nor the intensity of activity. When physical activity is defined this way, it reflects the simplest form of a movement that we need to make to live our daily lives. However, the definition referring to a bodily movement is seldom used in sport science research.

The concept of physical activity is culturally bound. Hovemann and Wicker (2009, 51) have referred to this problem in their study of the determinants of sports participation in the European Union. They have stated that due to the diversity in the interpretation of the word sport, the knowledge of sports participation is very fragmented in the European Union. Another major problem with the concept of physical activity relates to the objectivity of the measurements. For example, Aittosalo, Tammelin and Fogelholm (2010, 12) have pondered between the subjective and objective measurement methods and the margin of errors. The studies have indicated that when adults have subjectively measured their physical activity levels, they tend to overestimate their activity levels (e.g.Tammelin 2009).

The definition of health enhancing physical activity is also complex. The recommended levels of health enhancing physical activity vary between different nations. When most of the countries today are interested in the welfare achieved through physical activities,

it is no wonder that the researches have also been interested in studying physical activity by utilizing the recommendation for health enhancing physical activity levels as a conceptual framework. However, these studies are often confronted with problems in operationalization of sport such as indicated by Hovemann and Wicker (2009, 51).

Furthermore, as the term sport has been argued to be culturally bound, sport and physical activity are often examined as part of culture and society. This means that the evolvement in the society over time also affects physical culture and the definition of it. The evolvement of society has an impact not only on the trends of physical activity and sports, but also on the equality in terms of availability and accessibility, which are the key issues of this master's thesis.

### 3.2. Physical activity of the students in the higher education

The FINRISKI-research has provided comparable data on leisure-time physical activity, commuting physical activity and occupation physical activity of 25 to 64-year-old Finns in every five years between 1972 and 2007. The results have revealed that even though the leisure-time physical activity has grown in numbers over the years, yet the occupational physical activity and the commuting physical activity have decreased at the same time. In regard to demography classes, women's leisure-time physical activity has increased more compared to that of men, whose leisure-time physical activity has not increased any longer during the past decade. On the contrary, women's commuting physical activity has shown a decrease during the whole examination period whereas men's commuting physical activity declined steeply until the 1990s, but has shown slight changes ever since. (Husu, Paronen, Suni, Vasankari 2010a, 31.)

Even if leisure-time physical activity has grown in number, yet shockingly 1,9 millions Finns do not meet the recommended levels for health enhancing physical activity weekly exemplified in the weekly physical activity pie chart devised by the UKK-institute (Finnish Sports Federation 2010, 11). However, physical activity behaviour of Finnish adults seems to be bound to different demographic factors. The demographic factors that have been connected with alteration in physical activity behaviour are age, gender and occupation and in a very little extent, a place of residence. The similar patterns and features that have been discovered among Finnish adults' physical activity

behaviour, can also be detected in physical activity behavior of higher education students in Finland.

In 2009, there were 168 475 university students and 134 450 students in the universities of applied sciences registered as present students (Haapamäki, Kumpulainen, Piiroinen, Halonen 2011, 32 and 50). Altogether, the numbers amount to more than 300 000 students in the higher education in 2009 in Finland. Without a doubt, there was room for a great diversity. Physical activity of the students has been addressed in many studies. Yet, the term "student" is not univocal in Finland. The adolescents studying in the upper secondary schools are often also considered as students. Therefore it is best to rely on the information directly focusing on the students in the higher education in Finland: The Student Health Surveys conducted by the Finnish Student Health Service. Although the object of the study is much wider than purely clarifying physical activity levels of the higher education students in Finland, the surveys do provide consistent information on the physical activity levels of the university students starting in the year 2000 and to students in the universities of applied sciences from the year 2008 onwards.

The student health surveys have examined students' physical activity from three points of views: the leisure-time physical activity as fitness activity, commuting activity and as light physical activity which takes place alongside other daily activities. The results have been generally analyzed using gender, educational sector and age as independent variables. Overall, very little change has been shown among the university students physical activity level over the years, with one exception of a significant increase in men's commuting activities. (Kunttu and Huttunen 2009, 55.)

Among higher education students, the majority reported to take part in leisure-time physical activity causing slightly heavier breathing and mild sweating, 2-3 times a week (38%). Intriguingly, almost exactly the same number of student in percentage reported to take part in leisure-time physical activity approximately once a week (19%) and 4-6 times a week (18%). Only 6% of the students reported to participate in leisure-time physical activity daily, whereas the students who reported to exercise never or seldom, or 1-3 times a month together comprised over 20% of the students (10 % never or seldom and 12 % 1-3 times a month. (Kunttu and Huttunen 2009, 196.)

When the results are contrasted with the outcomes of the national sports surveys, it can be seen that almost the same percentages of the Finnish adult population and the higher education students reported to do leisure-time physical activity 2-3 times a week (35% of adults in 2009-2010 and 38% of the higher education students in 2008). However, a substantially smaller proportion of the higher education students reported to engage in leisure-time physical activity 4 times a week in comparison with the whole adult population (18% of the students in 2008 and 55% of the adult population in 2009-2010). Interestingly though, the number of people who reported to seldom engage in leisure-time physical activity was again very comparable (8% of adults in 2009-2010 and 10% of the students in 2008). (Finnish Sport Federation 2010, 6; Kunttu and Huttunen 2009, 196)

When the results of leisure-time physical activity are scrutinized with the reference to the physical activity pie chart (excluding muscular strength and balance exercises which were not examined), only 23% of the higher education students were physically active enough to gain health benefits, even though, a mean value for the amount of leisure-time physical activity per week reported in hours was 3, 5 hours (Kunttu and Huttunen 2009, 196). This is much less in comparison with the adult population, where the corresponding percentage in the 2009-2010 national sports survey was 44%. There are two issues that can explain the difference. First, the concept of physical activity can be understood differently between people belonging to different social stratifications (Opetusministeriö 2007a, 30). In addition, the national sports surveys have not addressed leisure-time, occupational and commuting activities separately, which can also explain the vast difference in percentage of people who reported to do physical activity 4 times a week among the adult population and the higher education students.

The higher education students are doing plenty of commuting activities. Almost 70% of the students reported to do 15-60 minutes of commuting activities daily. At the two extremities, one fifth of the students referred that they did commuting activity less than 15 minutes per day, whereas there were 10% of students who reported to do commuting activity more than an hour a day. The average amount of commuting activity weekly per hours was 3, 81. (Kunttu and Huttunen 2009, 197-198.)

The gender and age exert very little influence on the leisure-time physical activity of the higher education students. The results indicated a small tendency that the students aged 30-35 years were more likely to engage less in leisure-time physical activity in comparison with the other age groups. In addition, the female students aged 22-24 years showed a higher percentage of participation in comparison with the other groups. In regard to gender, the only notable difference perceived was that the female students tended to engage more in leisure-time physical activity 2-3 times a week compared to men (38% women and 34% men). (Kunttu and Huttunen 2009, 196-198.) Although the gender difference was perceived only within one activity category, the result could be argued to be in line with the findings of the national sports survey that women tend to be more active in leisure-time than men.

The influence of the gender and age on commuting physical activity was similar to leisure-time physical activity. The female students aged under 22 years and 22-24 years tended to do commuting activity more in comparison with the other groups when contrasted to male students of 30-35 of age, who reported the most commuting physical activity. However, the category 30 to 60 minutes commuting activity a day is excluded. In that category the under 22-year-old men had the highest percentage. So even if there has appeared an increase in plenty of commuting activity among the male students over the years, according to the overall results, women tended to do a little more of commuting activity. (Kunttu and Huttunen 2009, 196-198.)

University students and students in the universities of applied sciences differ from each other in their leisure-time physical activity. The results of the student health survey 2008 showed that in general, the students in the universities of applied sciences were less physically active compared to their counterparts at the universities. A higher percentage of the students in universities of applied sciences reported to be active "never or seldom" and "1-3 times a month", whereas higher percentages of the university students reported to be active "2-3 times a week" and "4-6 times a week". Although the differences observed were not massive, yet they seem to be persistent. However, it is good to note that nearly as many students reported to exercise once a week and on daily basis within both educational sectors. Furthermore, the mean amount of reported leisure-time physical activity in hours (~3,5h) a week was almost identical in the both educational sectors. (Kunttu and Huttunen 2009, 196.) A similar trend

between the educational sectors was also observed in commuting activity. The students in the universities of applied sciences tended to report less commuting activity when compared to the university students. However, the amount of commuting activity in hours per week was clearly greater with the students in the university of applied sciences (3, 87 hours) compared to the university students (3, 76 hours). (Kunttu and Huttunen 2009, 196-198.)

The differences appearing in the level of physical activity among the university students and students in the universities of applied sciences could be attributed to different factors. In general, the results are similar to those with the youth. Students in the vocational education seem to engage in leisure-time physical activity less even in the higher education level. This could be explained by a continuum between the vocational schools and the universities of applied sciences. However, the preconditions for physical activities are very different in many universities of applied sciences compared with the universities. Whereas many universities in Finland offer some sort of physical activity services, the provision of the physical activity services is still in its infancy in the most Finnish universities of applied sciences.

Precondition for physical activity play an important role for physically active lifestyle. There are clear indications that unequal opportunities for participation in physical activities begin already at a very young age and that for example the effects of one's socio-economic status are persistent throughout one's life. The changes in the Finnish society and in the physical culture in the past 40 years have contributed to the growing inequalities in preconditions for physically active lifestyle. The following section will deal with these changes briefly.

# 3.3. Changes in physical culture and in leisure-time in Finland

OECD-countries, Finland among them, experienced a long period of economic growth from the 1950s to the 1970s. This spurred many OECD-countries to strive toward the welfare state model. (Heiskala 2006, 15-20.) It could be argued that the economic growth and race toward the welfare state model have functioned as initiators or at least as contributors to the changes that have taken place in Finland over the past decades. These changes have spread over many fields of life. Changes have been experienced in work life, living habits, structure of the public services and in economy. Work life has

become more demanding. Typical features of today's work life are uncertainty, nonstandard contracts and irregular working hours. There is less physical work available and most tasks are performed with or with a help of some sort of technical devices. (Koski 2009, 9.)

Without doubt, the changes in work life have also influenced people's living habits and way of life. Due to working hours deviating from the traditional 8am to 4pm work day model, scheduling is challenging, not to mention the challenges post by combination of a family and work. The opportunities to spend one's leisure-time have become diverse. (Koski 2009, 9-11.) Revolution in the information technology has brought DVD's, computers, cell phones, just to mention a few, to our lives and enabled new ways of socializing without actually leaving home. These changes like the nonstandard contracts and technical devices have also influenced physical culture. On one hand, the untypical contracts have increased economic uncertainty, and on the other hand the technical devices have resulted in remarkable decrease in occupational physical activity. The researchers have observed that the reduction in working hours to 40 hours per week in 1965 increased people's leisure-time. But at the same time, physical work decreased, and as a consequence, physical activity started to diminish, and abundance of welfare started to increase (Heikkala, Honkanen, Laine, Pullinen, Ruuskanen-Himma 2003, 12-13; Zacheus 2008b, 94.) Naturally this kind of changes initiated a need for special fitness activities to compensate the reduced physical burden and this also made the state administration implement measures which extended to the field of civil physical training activities (Itkonen 2002, 44).

Finnish society has imposed physical culture by the structural change of the public services well. In the early 1980s started a drive to boost the public administration by switching from an administration model determined by juristic to a more business-oriented model determined by the organization theory. The term "new public management" was launched to describe the new result oriented approach. However, the new model turned out to be rather problematic. Problems were detected for example with different operational principles (the public sector's universal and standardized principles versus private sector's profit oriented ones), measurement of productivity (the public sector having no unambiguous measurement tools versus the private sector's univocal money) and targeting (the public sector cannot choose one target over

another). The above mentioned problems together with the problematic work distribution between a local authority and the state, not to mention the regional structural reformation, led to the increased regional inequality. Basically, it meant that the quality and availability of the basic services was very different in different parts of the country. (Heiskala 2006, 31-34.) Municipals in the urban areas spent much less money on sports services than cities. In addition, there appeared to be visible differences in the quality of the sports fields in the countryside, in the urban area and the cities. (Zacheus 2008b, 77-80.) Furthermore, the construction of the largest sports sites was concentrated in particular areas and the urban areas were left with small fields, schools' sports halls and swimming areas. (Zacheus 2008b, 81-84.)

In the 1990s the recession hit Finland and the physical culture was almost totally neglected by authorities. Physical culture was commercialized and technicalised but at the same time its position became poorer day by day. The equality accomplished by the enforcement of the Sports Act in 1980 was crushed due to two notable changes. First, the sports committee network established in the 1980s was run down by the modification of the municipal act that enabled municipalities to organize the sports administration in the way they wanted to (Vasara 2004, 337-340). The second significant change was a removal of the state labelled amount of money directed to sports, which left the municipalities themselves to decide the amount of money invested in sports. Although the sports sites offered by the municipality decreased the expenses of the sports clubs, these did not remove the demand for seeking funds. This brought about a situation where the operation of the sports clubs was financed from the member's pocket. (Heikkala et al. 2003, 17). Another matter which directly guided operation of the sports clubs was the Ministry of Education's shift to a result based subsidy policy. In practice it meant that the Ministry of Education was posing particular requirements to the sports clubs which the clubs had to fulfill in terms of their operation. Special attention was paid to children's and youth's activities and fitness activities. In addition, the sports clubs were required to honour the principle of equality and to engage in anti-doping activities in their operations. (Vasara 2004, 369)

It could be argued that the new millennium carries a burden of the actions in the previous decades in many ways. Even though financing of sports has turned ascendant compared to the 1990s, yet the subsidy of the Ministry of Education and Culture covers

only approximately 18 percent of the combined expenses of all sports unions. Commercialization of sports and physical activities has continued to grow and a family's solvency is a prominent factor in children's possibility to be engaged in physical activity. A vicious circle causing the increased costs to the participants is due to lack of state's direct support to the sports club. The operation of the clubs is partly supposed to be financed from the parents' pocket, in addition to other co-operation agreements and other forms of fundraising. While the municipalities do support the sports clubs by providing multiple sports facilities, the increase in the operational costs means a direct increase in the sports clubs own fundraising. (Heikkala et al. 2003, 18-19.)

### 3.4. Summary of the chapter

This chapter has discussed the complexity of the term 'physical activity', the physical activity of Finnish higher education students and the changes in the physical culture over the years in Finland. Physical activity behaviour of Finnish higher education students follow similar patterns and have similar features as the physical activity behaviour of Finnish adults in general. Almost 60 % of the Finnish higher education students engage to leisure-time activity at least 2-3 times a week, yet less than half of them reach the recommended levels for physical activity to gain health benefits. The demographic factors are also associated with higher education students' physical activity; female students aged 22-24 years tend to engage leisure-time physical activity most whereas the university students tend to be more active in their leisure-time in comparison to the students in the universities of applied sciences.

However, there appear inequalities in regard to the availability of physical activity services. The preconditions for physical activities are different among the university students and students in the universities of applied sciences. The chapter has illustrated how the changes in Finnish society over past 40 years have transformed Finnish physical culture and in addition have contributed to creation of inequalities in availability of physical activity services among Finns. The changes such as industrialization, information technology revolution and privatization have led to the life style with less commuting and occupational activities. On the other hand the differentiation of the physical culture have turned people more toward organized physical activities, at the same time leaving aside other physical activities. Furthermore,

the political decisions in relation to the autonomy of the municipals have in turn been a part of increasing inequalities in regard to accessibility of the sports services. Consequently, livelihood can be argued to be one significant factor influencing people's opportunities to take part in physical activities in the present Finnish society.

However, as the framework of social action implies, people's action in the society is seldom determined by one factor, but many concurrently influencing factors. Therefore, it is essential to take a look at factors that have been identified to correlate with humans' physical activity. The next chapter will deal with these issues and ponders the effects of life cycle and life style on the physical activity.

#### 4. WHY SOME PEOPLE ARE ACTIVE AND OTHERS INACTIVE?

At present sport science researchers are more interested in finding out why some people are physically active while others are not (Koski 2009, 17). Naturally this shift to looking into the reasons for physical activity has also called for new research methods and theories to be applied (Rovio et al. 2011, 37). Physical activity has been researched from an individual's point of view utilizing different theories from the area of psychology and social psychology. However, it has been argued that placing the focus only on one aspect provides rather thin understanding of the factors related to physical activity or inactivity (Rovio et al. 2011, 37). Thus currently the viewpoints have widened to cover environmental, cultural and sociological aspects as well. Health studies, on the other hand, have considered different existing inequalities such as socioeconomic status which can influence a person's ability to take part in health related activities such as physical activity.

Factors related to an individuals' physical activity behaviour are by no means easy to detect. This is due to the complex combination of simultaneously influencing factors. So, the chapter aims to describe how this complexity has been approached in the area of sport science by applying different research approached and theories. The main focus is placed on addressing sociological view points of physical activity behaviour. Last section of the chapter brings out the previous research findings related to the factors that have been associated with young adults' and students' physical activity behaviour in Finland.

#### 4.1. Approaches and theories utilised in the field

Studies have shown that physical activity and inactivity can be explained by several factors. In their review, Trost, Owen, Bauman, Sallis and Brown (2002) found a great number of factors that correlate with physical activity. These factors were classified as a) demographic and biological; b) psychological, cognitive, and emotional; c) behavioural attributes and skills; d) social and cultural; e) physical environmental; and f) physical activity characteristics (Trost et al., 2002). The researcher concluded that very often there is not one reason for physical activity or inactivity, but the behaviour can be attributed to a complex set of the above mentioned factors.

Researches investigating physical inactivity have often been characterised by identification of barriers for engagement in physical activity. The review of research literature shows a strong indication that perceived barriers affect participation in physical activity and thus health behavior in general (Allison, Dwyer and Makin, 1999). Several theories have been utilised in order to explain these barriers. Theories that have been applied include the theory of planned behaviour, social cognitive theory and personal investment theory (Sørensen and Gill, 2008). However, as to studying physical inactivity, adapting the sociological approach seems to be on the increase lately. The similar trend has also been prevalent in Finland.

One prominent question in the area of physical activity research is whether the reasons for physical activity or inactivity should be searched from the society or from an individual or eventually from both of them. Physical activity behaviour has been claimed to be bound to the surrounding society and culture (Vuori, 2009). Consistently, it has been argued that the physical culture should be able to respond to the citizens' starting points such as inequality (Paajanen, 2009). These arguments have been proved to be appropriate since the players in the field have noticed in practice that the best means to attain physically inactive children and youth is to affect the surrounding structures and circumstances (Rajala, 2010).

A new interesting focus that has appeared in the field of sociological research regarding physical activity is that physical activity is examined in the context of lifestyle. New dimensions have emerged when physical activity has been reflected in the context of the changes in the physical culture and differentiation of lifestyles in Finland (Tähtinen, Rinne, Nupponen, Heinonen 2002, 47). On the other hand, also the life cycle has been recognised as being a factor in structuring people's physical activity (Zacheus, Tähtinen, Koski, Rinne, Heinonen 2003, 33). Nevertheless, in regard to adapting the life cycle approach, it is worth remembering that the life cycle influences people's life both through the past and at present.

# 4.2. Life cycle and physical active behaviour

Most researches in the area of sports science, which have utilised the concept of life cycle as the explanatory factor for physical activity, have concentrated on the association between childhood's and adulthood's physical activity (Zacheus et al. 2003, 33). In other words, the studies have sought to find out whether childhood physical activity anticipates adulthood physical activity. However, there appear also other points of views in the research area. Zacheus et al. (2003) examined with 1,165 subjects aged 7 to 75 years, how the life span outlined the sports behaviour of the participants. The sample was divided into five different categories: (1) children of 7-15 years, (2) adolescents of 16-25 years, (3) life builders of 26-45 years, (4) mature adults of 46-60 years, and (5) elderly of 61-75 years. They made an interesting finding: everything connected with exercise the quantity, type and reason for exercise or not to exercise were structured around life cycle.

Regarding the quantity of physical activity, Zacheus et al. (2003, 34) found that the life builders had the lowest levels of physical activity (on average one time a week less compared with children and elderly) whereas children and the elderly were almost equally active physically (children three times a week and the elderly three and a half times a week). As to the reasons to exercise or not to exercise, a great variation was found between different groups. Laziness, time constraints and demands in family life were the most influential reasons for the life builders' physical inactivity whereas time constrains depending on the combination of studies and work and the high costs of physical activities were the constraints identified by the adolescents. All in all, the target group of this study was mainly motivated to exercise because of health-related reasons such as improved health and relaxation, whereas socialisation and competitiveness were identified as particularly important motives for children. Zacheus et al.'s (2003) study provides notable evidence that it is worthwhile to expand the physical activity related researches to take the special features appearing in different stages of life into account. However, physical activity behaviour have also been related to one's lifestyle.

# 4.3. Lifestyle and physical activity

In recent years the social science researchers have started to ponder whether a human's behaviour could be explained by some more enduring sphere such as lifestyle overriding the effects of the classical structural determinants such as social class, occupational status, ethnical identity or even gender (Tähtinen et al. 2002, 49). This question is actually very prevalent within this master's thesis since some references imply that youths' and young adults' physical inactivity could be attributed to lifestyle (e.g. Rovio et al. 2009, 32; Laakso et al. 2006, 6). Liikkanen (2009, 9) who has discussed leisure-time in Finland in her book, has argued that leisure-time in Finland is more and more characterised by factors like the dominance of thoughts and holding on to one's privacy.

When physical activity is examined as part of one's lifestyle, the dominance should be given to the idea of how humans' individual and social identities are presently considered to be constructed. According to Tähtinen et al. (2002, 49), humans' individual and social identities are built upon consumption and through lifestyle choices more strongly than ever. At the same time lifestyles are central for differentiation and the formation of group status.

The intersection of lifestyle and physical activity can be observed among young skate boarders in Finland for instance. Their individual and social identities are often strongly related to the whole culture surrounding skate boarding. The impact of a lifestyle on physical activity can also be considered in the context of the relationship of "high" and "low" cultures and the general attitudes in the society. For example Liikkanen (2009, 12) argued that the results from 2002 leisure-time research in Finland indicated that people with higher educational status chose to participate in so called "high culture" because it reflected the taste and mentality corresponding to their educational status. In addition, Liikkanen stated that the Finnish nation is very family-centred and thus this factor also has an effect on the choice of how to use one's leisure-time.

Liikkanen's observations of the leisure-time choices that are influenced by a person's perception of one's own status could actually be argued to be reflected in the national sports surveys. Maybe the opposite association between the occupation and physical

activity could be attributed to the mentality of people in the higher position who may understand physical activity only as an exercise-related activity. In addition, Liikkanen's arguments may also support the idea that the decline in physical activity level observed among the life builders can be attributed to the preference of spending time with their family, which can be regarded as a reflection of appreciating family-centred lifestyle.

Many of the researches addressing sociological aspects of physical activity, such as stage of life or lifestyle, are based on nationwide population-based health studies in Finland. For some reason, young adults often play a minor role in these researches (Ponto et al. 2010, 12). As young adults and students are confronted with very special problems in their specific stage of life, it is important to explore specifically the studies that outline the factors that have been associated to young adults' and students' physical activity in Finland.

# 4.4. Reasons for young adults' and higher education students' physical activity and inactivity

Ponto et al. (2010) have conducted a study which investigated 29-36- year-old subjects' motivational factors for physical activity and the reasons for the target groups' inactivity in Finland. They found several different motives for exercising and reasons for not to exercise. They gathered the motives for four motive groups: physical competence, well-being, socialisation and recommended benefits. The reasons for physical inactivity were divided into six clusters: (1) a general denial of the value of physical activity, (2) self-experience of being sporty, (3) being tired of physical activities, (4) lack of proper conditions, (5) fears related to physical activity, and (6) lack of time.

Another Finnish study provides more insight view related to socialisation motive. The study has investigated physical active behaviour of university students addressing the social relationships and physical activity. The study was relying on methods of empathy-based stories and was conducted among 57 university students in Finland. The main findings indicated that the starting up and finishing off points of the physical activity were often intertwined to a big picture in the daily life and one's whole life altogether. Changes in physical activity were especially detected to be related to

different breach points throughout one's life. Changes in the social environment and social relationships usually predicted alteration in physical activity. (Saaranen-Kauppinen, Rovio, Wallin, Eskola 2011.)

This finding is noteworthy concerning university students' physical activity in Finland. For many university students, acceptance to a university means automatically moving to another place. It might also mean that a person moves out from the parents' house for the first time. It might mean that the person will have to build up his social network from the scratch. All these changes are a huge challenge and may alter one's familiar physical activity pattern. An English review, which focused on the relationship of life-change events and participation in physical activity, reported also a similar decline in physical activity in relation to relocation from home to university even though this finding did not reach statistical significance (Allender, Hutchinson and Foster 2008, 163). However, it is good to note that the person may also be attached to his new environment through sports.

Factors that correlate to university students' physical activity have been researched very little in Finland. However, some individual reports exist. One of these reports is a paper produced in collaboration with Aalto University student union and Opiskelijajärjestöjen tutkimussäätiö OTUS. In the survey, the students were asked to name reasons for their inactivity. The most commonly cited reasons were "lack of time" and "general situation in life". In addition, almost every second reported "lack of interest" as a reason for their inactivity. (Kemppainen 2011, 5.) Although the respond rate was rather low in this study (28%), yet some answers are in line with other researches concerning the factors that correlate with either young adults' or university students' physical activity and inactivity. Nevertheless, there is a clear need for more quality studies addressing reasons for higher education students' physical activity or inactivity in Finland.

It is also important to approach the findings related to the factors that seem to be associated with physical activity with caution and critical eyes. First of all, very few studies concentrating on the factors that correlate with the physical activity have used prospective study designs (Trost et al 2002, 1999). Furthermore, it has also been pointed out that there appears to be a rather versatile application of terminology in the research area. Bauman, Sallis, Dzewaltowski and Owen (2002, 6-7) have brought up a

problematic application of a term determinant in regard to studies which are actually examining correlations instead of causal relationships. Thus, extra attention should be paid to the terminology and research design when the strength of evidence is evaluated in regard to the factors shown to be associated with physical activity.

# 4.5. Summary of the chapter

The chapter three provided some rather clear evidence that Finnish population's participation in physical activity is not always self-determined because of inequalities imposed by the Finnish society. However, this chapter has indicated that the reasons for one's physical activity or inactivity are seldom unambiguous. The research concerning the factors associated with physical activity has widened to consider many different aspects in the individuals' life lately. The impact of a life cycle has been acknowledged and many studies have focused on investigating the factors that correlate with physical activity in the different spheres of life.

Few researches have addressed the factors that seem to associated with adolescents', young adults', and students' physical activity in Finland. The results of these researches have indicated that reasons for physical inactivity among these groups, are often related to a situation in life. In general, the most cited reasons for adolescents and higher education students' physical inactivity seems to be 'lack of time'. One reason for lack of time is the combination of work and studies. In addition, the general situation in life related to the changes associated with starting studies in a higher education institution has been affiliated to increased physical inactivity. However, the studies have also shown that high costs of physical activities seem to be associated with adolescents' physical inactivity. So, the next chapter will discuss about the research findings concerning association between a person's socio-economic status and physical activity.

#### 5. SOCIO-ECONOMIC STATUS AND PHYSICAL ACTIVITY

Socio-economic status describes a person's educational attainment, occupation and income. Depending on the cases, it can describe a single factor of the three or a combination of all dimensions. (Nocon, Keil, Willich 2007, 401.) Effects of a socioeconomic status on people's health behaviour have been researched rather extensively. However, there has appeared quite a variation among both the health related factors, and the dimensions of the socio-economic status, which these studies have addressed. In addition, some studies have examined directly self-reported health instead of health related behaviour (e.g. Kunst et al. 2005). Despite the variation, many studies have identified some sort of association between a person's socio-economic status or some individual dimension of it, and health behaviour (e.g. Nocon, Keil, Willich 2007; Kantomaa, Tammelin, Näyhä, Taanila 2007; Stalsberg and Pedersen 2010; Borodulin, Mäkinen, Prättälä 2010; Gidlow, Johnston, Crone, Ellis, James 2006). Many studies addressing inequalities in health related to a person's socio-economic status, have used the term 'socio-economic position' instead of the term 'socio-economic status'. Even though some researchers have argued that these two terms do not have exactly the same meaning, the terms are often used interchangeably to refer the same issue (Galobardes, Shaw, Lawlor, Lynch and Smith 2006, 7).

A comprehensive European survey including 10 different European countries (Finland among them) studied self-reported health of people combined with their socio-economic status. The findings indicated that health inequalities do exist in Europe relating to people's socio-economic status. However, the same study also suggested that there has been no increase in health inequalities in the Nordic countries within the 10 years' study period. According to the researchers, this could be attributed to the fact that the Nordic countries, as the welfare states, have been able to buffer many of the adverse effects of economic crises to health inequalities. (Kunst et al. 2005, 295-305.)

International studies which have examined the association between the socio-economic status of a person and their health behaviour within the different age groups have end up with rather diverse conclusions in regard to different dimensions of the socio-economic status. Gidlow et al. (2006) conducted a review of the published researches which had

examined physical activity in relation to socio-economic position (SEP) in adults. They included twenty-eight cross-sectional and five longitudinal studies almost half of which were from America. Due to several weaknesses in the researches, they found consistent, but not strong evidence that socio-economic position was associated with physical activity. However there appeared clear evidence of differences between socio-economic indicators. The association between the educational attainment and physical activity had a tendency to be stronger compared to the association between physical activity and income, and physical activity and the occupational social class. In other words, the people with higher educational level tended to be more physically active compared to people with lower educational level. Out of the three dimensions, income produced the least consistent result and in spite of the several possibly explaining factors, the researchers concluded that income might be less associated with physical activity.

Even though Gidlow et al. (2006) did conclude that there appears to be an association between one's socio-economic position and physical activity, yet they acknowledged that in spite of individuals' circumstances, the socio-physical environment can influence physical activity. They also called for studies with objective physical activity measurements, and a greater consistency in socio-economic position measurements. In addition, they notified that the accuracy of the measurements varies according to region or country, and ethnicity and environment.

However, the opposite evidence disputing Gidlow et al's findings on the relationship of the socio-economic position and health behaviour do exist. A German study comprising the sample of 7,124 subjects, found that out of the three health behaviour variables identified as smoking, physical activity and obesity, the physical activity was the only variable which had independent effects with all three dimension of socio-economic status (SES). (Nocon, Keil, Willich 2007.)

International studies have produced some noteworthy evidence concerning the association between socio-economic status and physical activity, whereas the research results in Finland have been more moderate. The studies in Finland have mostly concentrated on examining the association between the SES and physical activity in adolescents and adults. Probably one of the most comprehensive researches regarding SES and physical activity in Finland is done by Mäkinen (2010) who investigated the

association between the SES and physical activity from the three population-based datasets over the period of twenty-five years.

Mäkinen (2010) examined the association between SES and three dimensions of physical activity: occupational physical activity, commuting physical activity and leisure-time physical activity. Intriguingly, his findings concerning the association between the SES and physical activity among Finns were somewhat contradictory with Gidlow's et al. (2006) review which focused primarily on American studies. Mäkinen (2010, 47-58) did find a statistically significant association between household incomes and both leisure-time and commuting physical inactivity during the whole research period. An interesting anomaly was found among female manual workers who were more physically active while commuting compared to their counterparts employed in white-collar jobs. In addition to the contrary findings in regard to household income, Mäkinen (2010) found no statistically significant association either between leisure-time physical activity or occupational physical activity and educational level, unlike Gidlow et al. (2006). However, the educational differences in leisure-time physical activity among adults were explained directly and indirectly by childhood socio-economic position and adolescence's sports and exercise behaviour. In the low-educated group, childhood participation in competitive sports was associated with leisure-time physical activity in adulthood whereas the highly-educated group exercising in late adolescence was associated with the leisure-time physical activity in adulthood (Mäkinen 2010, 58).

Mäkinen's (2010) and Gidlow's et al. (2006) contradictory results are prominent in many ways. On one hand, they stand for the significance of standardised measurements of both socio-economic status and physical activity. On the other hand, they reflect the dominance of the socio-physical environment in this research area. In interpreting the results, it seems to be important to consider the radical differences in the level of income among Americans, and the educational system and access to education among Finnish and Americans. Despite these interpretations, there are counter arguments to Mäkinen's (2010) findings also in Finland.

Interestingly the counter argument relates to young adults, the main target group of this master's thesis. Rovio et al. (2009, 27) used a population-based survey including a sample of 3,245 subjects aged 15 to 64 years. Their purpose was to find out whether it

would be possible to identify different sub-groups among young adults who were considered physically inactive. Utilising a cluster and factor analyses, they were able to identify seven different groups among physically inactive young adults. Two of the identified groups "immortal young men" and "young student women" had nearly 50% of students in them. Based on their findings, Rovio et al. (2009, 32) concluded that young adults' physical inactivity cannot be related to the socio-economic status of these people alone, but rather be explained by many other factors such as situations in life and work and other health related habits. In addition, in their opinion there appears to be a group of young adults in Finland to whom physical activity is not a natural part of their daily lives and this could be due to the young adults' culture and way of life.

Many studies have investigated the relationship between the socio-economic status of an individual and physical activity. The research findings have been consistent in a way that most of the studies have indicated the association between the SES and physical activity but the significance of the different dimensions of SES have varied. The association between income and physical activity has also been found in Finland, but there appear also some contradictory findings. Furthermore, there is a lack of studies investigating the association between the SES and physical activity among particular groups, such as the students in higher education in Finland.

At the same time, the association between higher education students SES and physical activity is not easy to study. The difficulty related to complexity to define SES of a higher education student. Obviously, there appear problems with defining educational attainment and occupation status. Moreover, income level of higher education students in Finland is far from unequivocal, but is often composed of multiple sources that are difficult to measure at the same time. Furthermore, higher education students' livelihood is often distributed unevenly during a year or years of studies and the financial situation is often experienced to be temporary. So, the next chapter will discuss about diversity of higher education students' livelihood in Finland.

# 6. DIVERSITY OF LIVELIHOOD AMONG FINNISH HIGHER EDUCATION STUDENTS

Studies in the higher education are a unique stage of life in many ways. The stage is affected by a complex combination of chronological age and expectations from the society. Students come from different backgrounds; enter higher education studies at different ages and at different phases of their lives. A joint international project 'Eurostudent III 2005-2008' investigating the social and economic condition of student life in Europe has also argued for the prevailing multiplicity at the higher education level in Europe (Orr, Schnitzer, Frackmann 2008, 10). Regardless of the heterogeneity, there seems to be one common feature characterizing students' life in all over Europe; it is a phase of a financial burden. This is often due to the process of getting independent of one's family in intellectual, social and financial level (Orr et al. 2008, 84).

Consequently, this chapter discusses of the livelihood of higher education students in Finland. First part of the chapter explores multiplicity of higher education students' livelihood in Finland. Second section deals with different ways to measure livelihood of a person and complexity related to the different measurement methods.

#### **6.1.** Livelihood of higher education students in Finland

The income of the students in the higher education has been studied in Finland since 2000. The research was initiated as a part of the 'Eurostudent' project (Viuhko 2006, 12.) Since 2000, three student surveys have been published in the years 2003, 2006 and the latest in 2010. Judging by these reports, the experience of the financial burden is evident also in Finland. According the latest 2010 survey, almost half of the students (47%) studying in the universities of applied sciences experienced that their current income was not enough to cover their monthly costs. Interestingly though, the corresponding percentage out of the university students was only 30 % (Saarenmaa, Saari and Virtanen 2010, 42.)

Other studies in Finland have provided similar figures. According to the material of the National Institute for Health and Welfare, a little less than one fifth of the students perceive that they are facing either difficulties or extreme difficulties in covering their costs of living (Lavikainen 2012, 35-37). Though, the statistic regarded all students

aged 18 or more as students regardless of the level of studies. However, interesting discrepancy appears when low income level is examined in the context of student household income. In 2006, 82% of people living in a student household were rated as having a low income, but at the same time, only 30% of the students were rated as having low incomes (Lavikainen 2012, 36).

The objectively measured figures of the higher education students' income have been rather corresponding with the higher education students' perceptions of livelihood studied in the EUROSTUDENT IV- survey. Income level of the higher education students in Finland varies greatly among the student population. Defining factors for the income level appear to be the age and family situation. For example, a median income of 18-24-year-old higher education students was 700 euros a month when the corresponding amount with 25-29-year-old higher education students was 949 euros a month. Students over 30 year of age had an even higher median monthly income, approximately 1400 euros a month. The family situation influenced in the following way: the median monthly income of the single higher education student was 771 euros, the median monthly income for a student living with a spouse was 900 euros, and the median monthly income for a student living with a spouse and a child was 1470 euros a month. The biggest earner was a single parent with a median monthly income of 1800 euros a month. (Saarenmaa et al. 2010, 37-39.) In addition, the place of residence was indicated to have an influence on the median monthly income. Whereas the students living in the Helsinki metropolitan area had the median monthly income of 948 euros over the course of a semester, the corresponding amount with the students in Western Finland was only 760 euros a month (Saarenmaa et al. 2010, 39).

However, even if the proportion of higher education students experiencing their livelihood scanty corresponds well with the proportion of higher education students actually having low income, it should be taken into account that subjective perception of one's livelihood encompasses more meanings than simply the amount of money that one has for living. Lavikainen has pointed out that higher education students' perceptions of the livelihood are often influenced by the experience of temporality (Lavikainen 2012, 64). In addition, she has noted that the students' attitudes and perceptions in terms of livelihood vary significantly, and so do the impacts of livelihood

on overall life (Lavikainen 2012, 69). Consequently, the researchers have discussed utility of subjective versus objective measurement of livelihood rather lot.

# 6.2. Different ways to measure livelihood

Two interrelated, yet very different, measurement methods have been utilised to measure a person's livelihood: the objective method, which usually measures person's income level and the subjective method, which measures person's perception of one's livelihood. Both measurement methods have positive and negative sides. Advocates of the subjective measurement have argued that the income level alone is insufficient to describe the adequacy of one's livelihood because of the multiplicity of the households' financial well-being (e.g. Moisio 2004, 343). Thus, the advocates have claimed that people's subjective perception of their financial difficulties and how they manage financially altogether, should complement the objective knowledge obtained. In addition, the importance of the subjective knowledge is especially accentuated when the information of the important objective factors is not available or the information cannot be measured in a reliable way. (Reijo 2011, 1.)

The opponents of the subjective measurements have argued that the subjective opinion of a person is neither a necessary nor an adequate condition to indicate poverty (Moisio 2004, 342). The critics have also referred to the general discrepancy appearing between the objectively measured income level and the subjective perception of it. Two arguments have been utilised to explain the discrepancy. First, a household may have other financial resources which can explain the difference between the objective income level and the reported subjective perception of it. (Reijo 2011, 3.) Another argument has been based on the so called "contentment paradox". According to the paradox, people with the low level of income adapt to the situation by adjusting the income level that they think they need to satisfy their individual expenditure needs so that it corresponds to their current level of income. Furthermore, it has been stated that the perception of one's livelihood is also connected to the well-being in the other areas of life. (Reijo 2011, 3; Viuhko 2006, 44.)

It has also been argued that people's tendency to compare themselves with the reference group influences a person's perception of his own livelihood. A person with a relatively high income level can think his livelihood is rather low if he compares himself with the frame group having an even higher income level (Viuhko 2006, 44). However, there may appear some additional factors by the side of the reference group. For example Lavikainen (2012, 67-69) found that among the higher education students in Finland, the experiences of the adequate income were based on the students' lifestyle, but interestingly, also to the students' family background.

Poverty is a complex phenomenon and thus it can be estimated and measured with many different procedures. Different measurements bring out a distinctive picture of poverty, and this is why it is problematic to indicate one type of generally acceptable poverty measurement. (Aatola 2004, 25.) Also, poverty must be approached in the context of culture and time (Lavikainen 2012, 10)

#### **6.3 Summary of the chapter**

This chapter has concerned diversity of higher education students' livelihood in Finland. Higher education student population is heterogeneous in Finland. This is also shown in livelihood among Finnish higher education students. In one hand, livelihood varies greatly among the student population and on the other hand, livelihood is often attained from various different sources. Livelihood of the higher education students in Finland has shown to be connected with age, family situation, educational sector and in some extent with the place of residence.

In general, two ways have been utilised to measure a person's livelihood; the objective measurement of one's income and the subjective measurement of a person's perception of one's livelihood. Both measurement methods have a group of advocates and critics behind them. General discrepancy has been observed between the objectively measured income and the subjectively measured perception of the livelihood. However, a person's perception of one's livelihood encompasses more meanings than the objectively measured income. The subjective perception of one's livelihood has been argued to describe human's well-being more broadly. In addition, it has been acknowledged as an important measurement method of one's livelihood if the important objective factors are not available or the information cannot be measured in a reliable way.

#### 7. RESEARCH QUESTIONS AND METHODOLOGY

The research questions are following:

- 1. Is higher education students' perception of their own livelihood interrelated with physical activity in Finland?
- 2. Is employment of the higher education students during studies interrelated with physical activity?
- 3. How does the possible interrelation vary between following background variables: gender, age, educational sector, family composition and study place.

Many systematic reviews of the correlates to physical activity have drawn a conclusion that adults' physical activity is determined by the complex set of different factors. A problem with the different correlates to physical activity is that the studies are rarely longitudinal by nature and that the terminology used within the studies is diverse. In addition, most of the researches conducted in the area have not been able to exclude the influence of other variables to the correlations.

Nevertheless, there is a wide scope of research evidence on the association between a person's socio-economic status and physical activity. Researches have shown that the low level of income has been associated with the lower level of physical activity whereas the higher educational attainment has been associated with higher levels of physical activity. However, the research results have also indicated somewhat contradictory findings in Finland. The association between SES and physical activity has not been significantly strong among young adults in Finland and this has caused the researches to ponder the strong impact of lifestyle amongst this particular group.

Even though the phase of life with heavy financial burden is evident amongst most of the higher education students in Finland, the higher education students are a very heterogeneous group. The livelihood of the students is very varying and often bound to the life situation of the students. Furthermore, the perceptions of one's own livelihood vary considerably. These perceptions have been shown to be connected with the parents' socio-economic status and the frame of reference that the student is using in comparison.

Nevertheless, there are two reasons why the higher education students make up an interesting population for studying the association of SES and physical activity. In general, the population has been identified to live with rather scant resources. Therefore it could be presumed that the physical activity level could also be low. However, other studies have identified the importance of lifestyle as the explanatory factor for physical activity amongst the group of young adults. In addition, the influence of the students own perceptions about their livelihood has never been researched before among this group. In the light of the information, this master's thesis leans on the null hypothesis that there is no association between the perceived income and physical activity behavior of the students.

This study is based on the data collected by the Finnish Student Health Service for "Student Health Survey 2008: a national survey among Finnish university students" research. Finnish Student Health Service is a body which is responsible for the health care of the university students in Finland. The health care of the students studying at the universities of applied sciences is part of the municipal students' health services. The aim of the Student Health Survey was to examine the following issues among Finnish higher education students: 1) physical, psychological and social health, 2) central attributes of the health behaviour, 3) factors related to the health and health behavior such as the questions regarding social relations, studying and livelihood, and 4) the usage of the health services and opinions about the quality of the services. The special themes included were sexual health, atopic eczema, asthma, acne, bullying, fatigue, gambling, internet usage and travelling.

In regard to the sample, implementation and the content, the Student Health Survey 2008 was designed to be as comparable as possible with the university students health surveys executed in the years 2000 and 2004. The ethical committee of the intermunicipal hospital district of Southwest Finland approved the research on 20<sup>th</sup> of November, 2007. Students gave their consent for participation in the study by responding the questionnaire voluntarily.

The following section covers the description of the sample, methods of implementation and the description of the data. In the end of the section, the representativeness of the data is examined briefly. The second part of the section deals with the statistical analysis of the data.

#### **7.1. Sample**

The target group of the research consisted of Finnish undergraduate university students under 35 years of age. The sample of the university students was retrieved from a customer registration system of the Finnish Student Health Service. The sample of the students at the universities of applied sciences was retrieved from the institutions' student registers. The students who were born in 1973 or later, so that they were under 35 years at the beginning of the semester 2007–2008 were included in the sample. The second criterion was that a student had enrolled as present for the semester 2007–2008. As to the sample of the students at the universities of applied sciences, both the students studying at adult education and at basic education were approved as long as they stayed within the set age limit.

A stratified random sample of the university students was drawn from the customer registration system according to the location of the Finnish Student Health Care service points in December 2007. The sample of the students in the universities of applied sciences was stratified according to the University of Applied Science, so that the proportional portion of the sample was the same in every school. With the universities of applied sciences, a request for the research permit and the address information, were sent to the universities of applied sciences on 8<sup>th</sup> of November, 2007. All 28 universities of applied sciences were asked to take part in the study, excluding only Högskolan på Åland and Police College of Finland. 27 universities of applied sciences returned requested information.

The sampling size of the university students was 5000 students and of the universities of the applied sciences 4999 students. 32 students were removed from the sample (15 students of universities of applied sciences and 17 university students). Part of the removed sample was exchange students studying abroad. Another reason for removal was that a part of the postal questionnaires were constantly returned. The final sample comprised 9967 students, of whom 45, 2 % were men and 54, 8% were women. The total of 4984 (46% men) studied at universities of applied sciences and 4983 (45% men) studied at universities.

#### 7.2. Measurements

#### 7.2.1. Background variables

Background information included four variables: age, gender, study region and educational field. The age groups were the same as in earlier studies in 2000 and 2004, and were compatible with "Health Behavior and Health among the Finnish Adult Population" (Helakorpi et al. 2008) and "The health of young adults" (Koskinen et al. 2005) - studies conducted by the National Institute for Health and Welfare.

The study region variable was based on the respondents' own statement. It was specified in the instructions that a respondent should state only one study region. The educational field was instructed to be the one where a respondent was studying during the current semester. The respondents were able to state that they were studying in more than one educational field by marking the stick box.

The study regions were classified as follows:

- Helsinki, Vantaa, Espoo and Kauniainen is treated as one Helsinki Metropolitan Area
- The study regions are used if the region in question had at least 100 respondents. The regions among the university students that had at least 100 respondents were Turku, Tampere, Jyväskylä, Oulu, Joensuu, Vaasa and Kuopio. The regions among the University of Applied Sciences students having at least 100 respondents were Tampere, Turku, Kuopio, Lahti and Oulu.
- Other smaller study regions of the university students are treated as one. The classification among the university of applied sciences students is shown in table
   1.

Table 1. Study Region Background Variable among University of Applied Sciences Students

Study region background variables	Areas included in the variable
1. Helsinki Metropolitan Area	Helsinki, Espoo, Vantaa, Kauniainen
2. Lahti	
3. Other Southern Finland province	Hämeenlinna, Kouvola, Lappeenranta
4. Tampere	
5. Turku	
	Jyväskylä, Kokkola, Pori, Rauma,
6. Other Western Finland provinces	Seinäjoki, Vaasa
7. Kuopio	
8. Other Eastern Finland provinces	Joensuu, Mikkeli, Savonlinna
9. Oulu	
10. Other Oulu provinces and Lapland	
provinces	Kajaani, Kemi, Rovaniemi, Tornio

The question containing the educational field followed an educational field list made by the Ministry of Education (Opetusministeriö 2007b and 2007c). The grouping of the educational fields at the universities was formulated in the same way as in the previous studies. With the universities of applied sciences, six groups were formed out of eight educational fields such that the Humanities and the Educational Sciences were combined with the Cultural field, and the Natural Sciences were combined with the Natural Resources and Environment. The educational fields used as the background variable are shown in table 2.

Table 2. Educational fields of university and university of applied sciences students used as the background variable.

Educational fields of university students	Educational fields university of				
Educational fields of university students	applied sciences students				
Humanities and Theology	Culture, Humanities and education				
	Natural Sciences, Natural Resources and				
Social Sciences	Environment				
	Tourism, Catering and Domestic				
Law	Services				
Natural Sciences, Agriculture and Forestry,					
Pharmacy	Social Services, Health and Sports				
	Technology, Communication and				
Economics	Transport				
	Social Sciences, Business and				
Technology	Administration				
Medicine					
Sports and health Sciences, Educational					
Sciences and Psychology					
Art Universities					

# 7.2.2. Measurements of physical activity, livelihood, work and family

Finnish version of the questionnaire used in the study is attached (Appendix 1). The questionnaire was devised in a way that it is similar to the questionnaires used in 2000 and 2004 in regard to the basic question (Kunttu and Huttunen, 2001 and 2005). Old questions were eliminated to some extent, so that current new questions could be introduced. This section presents only the measurements used for the issues which were utilized for the purposes of this master's thesis. Questions significant for this study were translated into English and are attached (Appendix 2).

The basic questions estimating the level of physical activity have remained the same as from the year 2000 study. Physical activity was estimated by asking questions about different types of physical activities. The questions estimating a leisure-time physical activity and a commuting activity of the students (questions 43 and 45) were almost identical to the question used in "Health Behavior and Health among the Finnish Adult Population"- study. The only exception was that the question about commuting activity included also other activities besides going to school, such as going to hobbies.

Leisure-time physical activity was measured with the question: "How often do you engage in leisure-time physical activity for at least half an hour so that you sweat and get at least some shortness of breath (e.g. jogging, cycling, gymnastics, swimming, ball games)?" The response alternatives were: 0) never or very seldom, 1) 1-3 times a month, 2) about once a week, 3) 2-3 times a week, 4) 4-6 times a week, and 5) daily. In addition, question 44 asked about the amount of weekly leisure-time physical activity in hours with the question: "If you engage in the above activities, how many hours a week". The response alternative was: "Total for one week about — hours". The corresponding question to question number 44 has been used in the "Health 2000"- the survey conducted by the National Institute for Health and Welfare (Kansanterveyslaitos 2000). Researches have referred that the questions estimating the time used for physical activity provide internationally comparable information regarding total amount of physical activity.

The question estimating commuting physical activity was: "How many minutes a day do you walk or cycle as commuting physical activity (e.g. trips to and from the institution, hobbies, work, etc.)?" The response alternatives were: 0) less than 15 minutes a day, 1) 15-30 minutes a day, 2) 30-60 minutes a day, and 3) over an hour a day. The question regarding light physical activity (question 46) included light physical activity produced by other hobbies. The exact question was: "How often do you engage in some light physical activity for at least half an hour at a time or in connection with some other activity (walking, hiking in the nature, dancing, walking a dog, everyday chores)?" with the response alternatives: 0) maximum of three times a month, 1) 1-2 times a week, 2) 3-4 times a week and 3) daily or almost daily.

In the original questionnaire, there were two questions to examine the students' perception of their own livelihood. The questions about the economic situation and expendable money did not deviate from the previous studies, except that the time frame "during the past year" was added to the question 92, which dealt with expendable money. Question 93 inquiring about the students' perception of their economic situation was originated with the student barometer (Lempinen 1997) and question 92 inquiring about the expendable money originated with Saari's study (Saari 1979). The question about the adequacy of the expendable money was: "How well was the money available for you adequate over the past year (12 months)?" with the response alternatives: 1)

very well, 2) I managed well, 3) I managed if I was economical and 4) My subsistence was very meager and uncertain. The question assessing the economic situation was: "Assess your economic situation over past year (12 months)?" There were three response alternatives each with choices of "yes", "no", "I cannot say": 1) I had to go to work to ensure my subsistence, 2) I got economic support from my parents or relatives in the form of money, good, etc., and 3) My accommodation costs took more than half of the money available for me.

The question regarding employment of the students was originally included in the study in 2004. This was due to commonness of students' employment while studying. The question examining the employment was: "Have you been in employment over past year (12 months)?" The response alternatives were: 1) Full-time job (30 hours or more in a week), total of – months, with – months during the terms, 2) Regular part-day or part-time job (under 30 hours a week), approximately – hours a week, for a total of – months, with – months during the terms, and 3) Quick jobs during the academic year (shorter than one month period, irregularly) with the alternatives 0=not at all, 1=occasionally and 2= often. Each response alternative was followed with the question: was your job related to your studies with the choices of "yes" and "no".

There were different questions about the composition of the family and the number of children (questions 95 and 98). Compared to the earlier studies, the question regarding the composition of the family (question 95) was specified by taking an option "commune" by the side to the option "shared household". In addition, the attributes "open relationship", "marriage" and "registered relationship" were added to delineate the response alternative "living with the spouse". The question about the family composition was following: "What is your family like at present?" The response alternatives were: 1) I live alone in my household or in shared accommodation, 2) I live in a commune or shared accommodation (joint rent agreement), 3) I live together with my spouse (open relationship, marriage, registered relationship), 4) I live with my spouse and child/children, 5) I live alone with my child/children, 6) I live at my parents' house, 7) Other,\_\_. The question concerning the number of children was: "How many children do you have?"

#### 7.2.3. Validity and reliability of the measurements

Sociology is a discipline which is very scattered regarding the usage of both the theoretical and the empirical research methods (Alkula, Pöntinen and Ylöstalo, 2002). This is due to the fact that the society is a complex alliance of the agency and the structure which interact with each other in multiple different ways. It is obvious that a given society's structure sets certain limits and boundaries, and in these settings the agent i.e. a human executes one's free will. On the other hand, it is this free will of the agent that shapes the structure. Most sociological researchers have chosen to emphasize either the structure's domination over the agent or vice versa and their theoretical point of view is reflecting on this choice.

Similarly the relationship between the socio-economic status and physical inactivity could be explored with several different methods. Qualitative research methods could deepen the understanding of the issue by exploring multifaceted interactions between different influential factors. However, the problem with the qualitative methods in this case is that even though they offer very detailed information, qualitative methods are limited by the sample size and thus cannot be generalized very easily.

There are many advantages in applying quantitative research methods in the sociological research. Quantitative methods can provide exact information regarding the extent of the issue under investigation and different interactions and associations related to it. Outcomes are more easily generalized when sample size is often large and if well designed also representative (Alkula et al., 2002.) Mainly for the previously stated arguments, the quantitative research methods were chosen for executing this study.

It is understood that the current study design for this master's thesis does not reveal any causal relationships, but only possible association between investigated factors. It must also be underlined that questions regarding students' livelihood have focused of students' perceptions of their livelihood and thus is not based on a numerical fact. This can lead to a so called "human error" where one student can manage very well with very little money and report to have good or excellent livelihood, whereas another other can actually earn more than the previously mentioned and still report to have scanty and insecure livelihood. Viuhko (2006) has pointed out that students form a view of their

financial situation by comparing themselves with others. It means that even a well-paid student may view his financial situation as poor if he compares himself to others who earn even better than him. However, though the perception of one's livelihood is relative and subjective, it is related to a person's own experience of one's well-being and to an ability to influence this well-being (Viuhko, 2006). Hence it could be argued that the perception of one's own livelihood is a valid variable in relation to the research question.

Another point to bring up is the methodological problem with self-reporting. Tammelin (2009) states that people tend to overestimate their level of physical activity in the questionnaires. She has also noted that people tend to remember an actual exercise behavior, but find it difficult to evaluate the amount of physical activity taking place during daily chores and other daily related activities. It has also been pointed out that there exists very little research based information in Finland on the validity of the questionnaires measuring the physical activity level of people (Tammelin, Runtti, Halonen, Simonen and Hopsu, 2010). Nevertheless, the questions used to measure the level of physical activity of the students, were the same as those utilized for other significant health related studies in adult population in Finland. Thus the validity of the questions has been proved to a certain extent.

#### 7.3. Implementation

The survey was implemented mainly as a postal questionnaire study, but the possibility to fill out the questionnaire over the internet was also offered. The students having Swedish as their mother tongue were sent a questionnaire translated into Swedish. The postal questionnaire was posted to 9900 students during 23.1–5.2.2008. The responses were requested three times. The first request to respond was sent on the 21<sup>st</sup> of February via e-mail. A number of the 1999 the e-mail messages did not reach the receivers and these people were posted a letter containing an identical message to in the e-mails. The second request to respond was sent on the 20<sup>th</sup> of March. This time the postal questionnaire was re-sent to all of those who had not responded yet. The third request was done again via e-mail. It occurred on the 22<sup>nd</sup> of April, and also those were contacted who had not responded so far. A number of the 649 e-mail messages did not go through and those people were sent an identical letter by post.

New addresses were searched to those students whose postal questionnaires were returned by the post office and the questionnaires were re-sent to them. The eventual respond rate was 51% (5105 answers) in which 62 % (3173 answers) were received by postal questionnaires and 38% (1932 answers) over the internet. 12 students had responded twice.

### 7.4. Description of the data

The overall number of responses was 5093, out of which 2347 responses were received from the university of applied sciences' students and 2746 responses from the university students. Seven out of the overall 5093 responses were empty (two from the students at the universities of applied sciences and five from the universities) and these were removed from the final data. In addition, 25 subjects out of the sample of the University of Applied Sciences students notified that they studied at the university and respectively 16 subjects out of the sample of the university students reported to study at the universities of applied sciences. These subjects were processed within the sample group that they notified to belong to. Thus the final data comprised 5086 respondents of whom 2336 were the students of universities of applied sciences and 2750 were university students.

The median age of the students studying at the universities of applied sciences was 24, 0 years for men and 23, 3 years for women whereas the median age for men at the universities was 25, 3 years and for women 24, 4 years. The response rate of the study was 51, 1%, 47, 1% being students at the universities of applied sciences and 55, 1% university students. Women were more active respondents in both groups and those under 25 were more active compared to older ones.

Table 3. Age and Gender Distribution of the Respondents (in numbers and percentages), Universities, Universities of Applied Sciences, Total

	Uni. Of App. Scie	Uni. Of App. Scie		Uni.		
	N	%	N	%	N	%
MEN						
Under 22- years	177	20,5	137	13,7	314	16,8
22-24 years	398	46,1	307	30,7	705	37,8
25-29 years	222	25,7	422	42,2	644	34,5
30-34 years	67	7,7	134	13,4	201	10,8
Total	864	100,0	1000	100,0	1864	100,0
WOMEN						
Under 22- years	449	30,5	410	23,4	859	26,7
22-24 years	608	41,3	570	32,6	1178	36,6
25-29 years	324	22,0	591	33,8	915	28,4
30-34 years	91	6,2	179	10,2	270	8,4
Total	1472	100,0	1750	100,0	3222	100,0
Total men and women	2336		2750		5086	

Table 4 indicates that in general both the university students and students of the universities of applied sciences, who were approximately in the middle of their studies, were the most active respondents (45, 4% and 47, 8%). A similar phenomenon was perceived with both men and women, with the exception of male university students' respondent quite a lot also in the category of 5.-7. Years of studies (31, 2%).

Table 4. Distribution of the Respondents According to the Years of Studies (in numbers and percentages). University, University of Applied Sciences and Total

UNIV.						
	Men		Women		Total	
	N	%	N	%	N	%
Years of studies						
1. year	133	13,5	283	16,3	416	15,3
2 4. year	411	41,7	789	45,4	1200	44,1
57. year	307	31,2	503	29	810	29,8
8. year or more	134	13,6	161	9,3	295	10,8
Total	985	100,0	1736	100,0	2721	100,0
UoAS						
Years of studies						
1. year	210	24,6	356	24,6	566	24,6
23. year	382	44,8	716	49,5	1098	47,8
4. year	171	20,1	265	18,3	436	19,0
5. year or more	89	10,4	110	7,6	199	8,7
Total	852	100,0	1447	100,0	2299	100,0

Table 5 below shows how the responses had distributed according to the study region. Both university students and students of university of applied sciences who studied in the Helsinki Metropolitan Area were the most active respondents (32, 7% and 24, 2%). With the university students, other more active respondents can be found in larger cities such as in Tampere (13,8%) and Turku (14,1%) followed by Jyväskylä (10,8%). With the students of universities of applied sciences, two more active study regions that stand out especially were Other Southern Finland Province (14, 5%) and Other Western Finland Province (18, 2%).

Table 5. Distribution of the Respondents According to the Study Region (in numbers and percentages). University, University of Applied Sciences and Total.

UNIV.						
	Men		Women		Total	
	N	%	N	%	N	%
Study region						
Helsinki Metropolitan Area	310	31,2	586	33,6	896	32,7
Tampere	165	16,6	214	12,3	379	13,8
Turku	133	13,4	253	14,5	386	14,1
Jyväskylä	102	10,3	194	11,1	296	10,8
Oulu	112	11,3	125	7,2	237	8,6
Joensuu	35	3,5	82	4,7	117	4,3
Vaasa	36	3,6	70	4,0	106	3,9
Kuopio	27	2,7	75	4,3	102	3,7
Other	75	7,5	147	8,4	222	8,1
Total	995	100,0	1746	100,0	2741	100,0
UoAS						
Study region						
Helsinki Metropolitan Area	176	20,4	387	26,4	563	24,2
Lahti	39	4,5	63	4,3	102	4,4
Other Southern Finland						
Province	120	13,9	218	14,9	338	14,5
Tampere	74	8,6	112	7,6	186	8,0
Turku	70	8,1	112	7,6	182	7,8
Other Western Finland		400		4= 0		40.0
Province	161	18,9	263	17,9	424	18,2
Kuopio	47	5,4	62	4,2	109	4,7
Other Eastern Finland Province	61	7,1	103	7,0	164	7,0
Oulu	50		49		99	
Other Oulu and Lapland	30	5,8	49	3,3	99	4,2
Provinces	65	7,5	98	6,7	163	7,0
Total	863	100,0	1467	100,0	2330	100,0

The distribution of the respondents according to the Educational Field is shown in the table 6. Within the male university students, clearly the most active respondents were found amongst the Technology students (33, 7%). Within the female university students, the percentages of respondents were distributed more evenly. Yet, female university students studying Humanities and Theology (23, 8%), Natural Sciences,

Agriculture and Forestry, Pharmacy (17, 8%) and Sports and Health Sciences, Educational Sciences and Psychology (17, 9%) were amongst more active respondents.

Within the students of the universities of applied sciences, the respondent's activity seemed to be in relation with both the gender and the educational field. Amongst male students of universities of applied sciences, the most active respondents were found in the field of Technology, Communication and Transport (59, 9%). Amongst female students of universities of applied sciences, the most active respondents were studying in the field of Social Services, Health and Sports (40, 7%).

Table 6. Distribution of the Respondents According to the Educational Field (in numbers and percentages). University, University of Applied Sciences and Total.

UNIV.						
	Men		Women		Total	
	N	%	N	%	N	%
<b>Educational Field</b>						
Humanities and Theology	97	9,8	416	23,8	513	18,7
Social Sciences	79	8,0	199	11,4	278	10,2
Law	32	3,2	63	3,6	95	3,5
Natural Sciences, Agriculture and						
Forestry, Pharmacy	196	19,7	311	17,8	507	18,5
Economics	130	13,1	140	8,0	270	9,9
Technology	335	33,7	131	7,5	466	17,0
Medicine	50	5,0	119	6,8	169	6,2
Sports and health Sciences, Educational						
Sciences and Psychology	52	5,2	312	17,9	364	13,3
Art Universities	22	2,2	54	3,1	76	2,8
Total	993	100,0	1745	100,0	2738	100,0
UoAS						
<b>Educational Field</b>						
Culture, Humanities and education	56	6,5	175	11,9	231	9,9
Natural Sciences, Natural Resources						
and Environment	72	8,4	64	4,4	136	5,8
Tourism, Catering and Domestic						
Services	27	3,1	173	11,8	200	8,6
Social Services, Health and Sports	59	6,9	598	40,7	657	28,2
Technology, Communication and						
Transport	515	59,9	151	10,3	666	28,6
Social Sciences, Business and						
Administration	131	15,2	309	21,0	440	18,9
Total	860	100,0	1470	100,0	2330	100,0

#### 7.4.1. Representativeness of the sample

Kunttu and Huttunen (2009, 29-34) conducted an analysis of the representativeness of the data. They analyzed the representativeness of gender, age groups, schools amongst the students of the university of applied sciences, the study regions amongst the university students and the educational fields. The representativeness stands for how well the data presents the whole higher education students population in Finland.

The whole sample comprised 45% of men and 55% of women, the corresponding response rates were 37% and 63%. The gender distribution in the sample was established to be equivalent to that in both the universities and the universities of applied sciences. However, there were 10% more female respondents and ten per cent fewer male respondents in comparison with the general distribution.

The representativeness of the age groups was established by comparing the sample with then latest higher education institutions statistics by the Statistics Finland in 2007 (Tilastokeskus 2007). According to the Statistics Finland statistics, 67% of the degree students at the universities of applied sciences and 50% of the master's students at the universities were under 24 years old. According to the same statistics, 8, 8% of the degree students at the universities of applied sciences and 15% of the master's students at the universities were 30-34 years old. Thus a conclusion was drawn that the sample was well equivalent to the general distribution, but that the response rate comprised slightly more students belonging to the younger age group.

The sample of the students in the universities of applied sciences was stratified by the schools. Therefore the analysis of the representativeness was also school-specific. All in all, the information of 82 700 students studying at the universities of applied sciences who met the criteria was received for sampling. When the data was compared with the higher education institution statistics by the Statistics Finland, it was deduced that the sample and the respondents proportions were equivalent to the general distribution excluding to the JAMK University of Applied Sciences. The proportion of JAMK University of Applied Sciences was relatively small within the sample because the researchers received only the information of 1413 students who had given the informed consent. It was also notified that the proportion of Mikkeli University of Applied

Sciences was somewhat smaller within the sample, which was due to the unfavorable time period of sampling.

In regard to the study region and the educational fields of the university students, it was established that the sample represented both the different study regions and the educational fields well. The same observation was also made regarding the educational fields of the universities of applied sciences students. However, it was pointed out that students of universities of applied sciences studying in the field of Social Services, Health and Sports were more active respondents compared to the whole sample population and the universities of applied sciences students studying in the field of Natural Sciences were more passive respondents compared to the whole sample population, even though the differences were not great.

#### 7.4.2. Dropout analysis to men

Kunttu and Huttunen (2009) decided to carry out a dropout analysis to male students in contact with their study. One reason for the dropout analysis was the general knowledge of a low response activity among young men and the perception that it would be emphasized in the student survey, since the exact target group is the young adults. The dropout analysis was conducted by phone with 200 male students who did not respond to the questionnaire. The data for the dropout analysis was collected so that it was phoned to so many randomly selected male students that the number of responses reached 100 for both university students and students of university of applied sciences. 800 male university students and 800 male students of university of applied sciences were collected by random sampling and the phone numbers were received for 59 % of those.

1 to 3 phone calls were made per phone number. A number of the students reached by the time that the designed number of responses was accomplished were 272. Altogether, 74% of the reached students responded to the phone interview. The phone interview began with an open ended question of why the student had not responded to the ordinary questionnaire. After that, 24 essential questions were asked from the ordinary questionnaire. The following paragraph presents only the information from the dropout analysis which is important for the master's thesis.

The dropout analysis revealed that those who had responded to the ordinary questionnaire and the phone interview did not differ from one another statistically significantly in terms of age, study region or educational field on either educational sector. The male students that had responded to the ordinary questionnaire were more commonly full-time students, especially in the universities of applied sciences (80, 9% vs. 67, 0%, p=<0.001) but also in the universities (66, 1% vs. 60, 0%, p=0.012) compared to the male students who responded to the phone interview. The statistically significant difference appeared among the data composed of the students of the universities of applied sciences in regard to the years of study so that there were more first year students (24, 6%) who had responded to the ordinary questionnaire compared to the phone interview (7, 0%), but less second year students (23, 0% vs. 33, 0%) and the students who had studied 5 years or more.

The dropout analysis also revealed that those male university students, who had responded to the ordinary questionnaire, had reported to do more leisure-time fitness activities compared to those who answered to the phone interview (90, 5% vs. 82, 0%, p=0,007). This difference did not exist among male students of university of applied sciences. Instead, the males who answered the phone interview from both educational sectors, reported to do more commuting activities compared to those who responded to the ordinary questionnaire (5, 2 hours/week vs. 3, 9 hours/week).

### 7.5. Statistical analysis

The data was analyzed with IBM® SPSS® statistics Version 20 (IBM Corporation, United States) software. The variables concerning the study place, the number of children, the family composition and the assessment of the economic situation were recoded so that they corresponded better with the research questions of the master's thesis. The study place variable was recoded into two new variables. The first recoded variable consisted of all university cities and the second was composed according to the regional administration units (Regional State Administrative Agency) founded in 2010 to replace the former provinces. Both above mentioned recoded variables were formed to examine the regional differences. After recoding question 95 relating to the present family, it was founded that it was vague and did not necessarily reveal the marital status, so it was rejected. The response alternative of question 93 assessing the

economic situation was recoded so that the "I cannot say" answers were coded as the system missing, so that these would not affect the cross tabulation. The responses to question 94 concerning the full-time and part-day employment were split into the quartiles in order to facilitate the examination. The correctness of all recoded variables (excluding the assessment of the economic situation) was checked by comparing the frequencies (n valid and missing) of the original and recoded variables with each other.

The statistical analysis was initiated by examining the distribution of the independent variable i.e. students perception of their own livelihood. Frequencies in the whole sample (n, %, mode and variation ratio) were calculated for question 92 concerning the adequacy of the money available, and separately for each response alternative of question 93 concerning the assessment of one's economic situation. Frequencies in the whole sample (n, %, mean, median and standard distribution) were also calculated to the employment variables (full-time and part-day response alternatives in the question 94). After that, the association and the variation between perception of one's livelihood and the background variables were examined by cross tabulating individually question 92 and the response alternatives of question 93 with gender, age groups, study place, educational sector and the number of children. The statistical significance of the associations was examined by yielding Chi<sup>2</sup> p-values and contingency coefficients. The statistical significance level for this study was set as 0, 01.

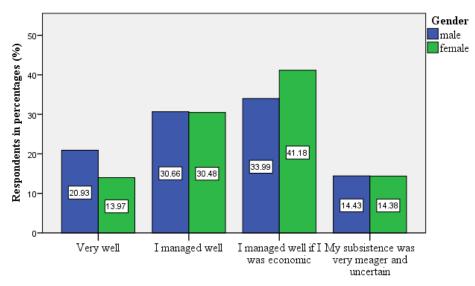
The cross tabulation of each physical activity variable was done separately with the subsistence variable and the assessment of the economic situation variable. All these cross tabulations were elaborated separately with the gender, the education sector, the age groups, the number of children and the study place to see whether the association followed similar patterns also with different background variables. Chi <sup>2</sup> p-values and contingency coefficient were calculated to examine the statistical significance of the associations. Last, the association with full-time employment and part-day employment to leisure-time, commuting and light physical activities were discovered by cross tabulating the full-time and part-day employment quartiles with each physical activity variable individually. This was followed by the elaboration with the background variables.

#### 8. RESULTS

## 8.1. Higher education students' perceptions of their livelihood

The results showed that the higher education students in Finland regarded their livelihood as fairly good. Almost a third (30%) of the higher education students thought that they had managed well and more than a third (38%) were of the opinion that they had managed well, if they were economical with the money available for them over the past year. Approximately one sixth of the students were found in the both extremities (17% felt they had managed very well and 14% felt that their subsistence had been very meager and uncertain).

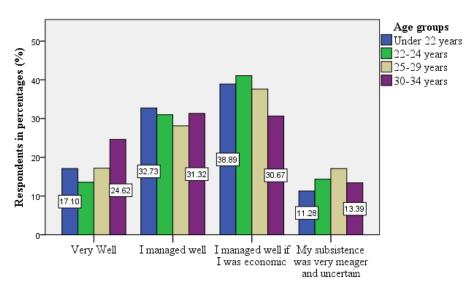
Elaboration of the adequacy of the money available with the background variables (gender, age groups, study place, educational sector and the number of children) indicated that the perception of the adequacy of the money available was not distributed evenly among the background variables. Overall, female students felt their livelihood was less good in comparison with the male students. In regard to the age groups, the students aged 30-34 years stood out with the tendency of thinking that they managed very well with the money available for them although more than every tenth student also reported that the money available was very meager and uncertain, whereas the students in the age group 25-29 were inclined to regard the sum of money available for them somewhat scant. The analysis of the interrelation with the educational sector revealed that overall the university students found the money available for them adequate in comparison with the students of the universities of applied sciences. In regard to the study place, the results indicated that the higher education students studying in the southern parts of Finland considered the money available for them more adequate than the students studying in the northern parts of Finland. Detailed distributions of the adequacy of money available elaborated by the background variables are shown in the charts 1-4.



How well was the money available for you adequate over the past year (12 months)?

Valid N= 5009. p= <,001\*\*\*

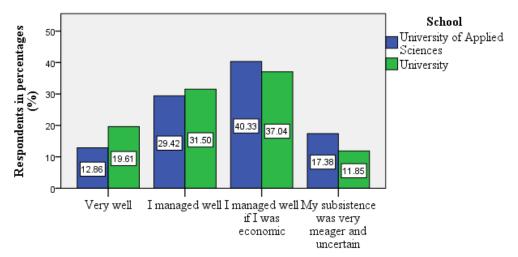
Chart 1. Perceived Adequacy of the Money Available by Gender (%)



How well was the money available for you adequate over the past year (12 months)?

Valid N= 5009. p= <,001 \*\*\*

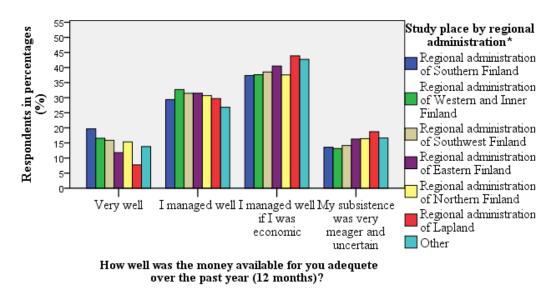
Chart 2. Perceived Adequacy of the Money Available by the Age Groups (%)



How well was the money available for you adequete over the past year (12 months)?

Valid N= 5009. p=<,001 \*\*\*

Chart 3. Perceived Money Available by the Educational Sector (%)



<sup>\*</sup> study places were classified according to the Regional State Administrative Agency that they belong into.  $Valid\ N=4994\ .\ p=\ .001***$ 

Chart 4. Perceived Money Available by the Study Place (%)

70 % of all students reported that they had work in order to secure their subsistence. Obligatory employment showed the statistically significant interrelation with age (p = <, 001) and the number of children (p =, 003). Students under 22 were less likely to work

compared to the older age groups, and the proportion of the students being employed increased gradually with the age, although a-one-per-cent decrease was found with the students at the age group of 30-34. The students who did not have any children were more likely to report that they were obligated to work in order to secure their subsistence (74%) compared to the students having children (67%).

A major proportion of all students (68%) reported that they received economic support from their parents or relatives. The economic support showed interrelation with gender, age and the number of children, all having p=<, 001. Female students and the students with no children were more likely to have economic support from their parents or relatives. There was a gradual decline in the proportions of those who reported to have received the economic support from the parents or relatives as the students became older.

A little more than a half (51%) of all students reported that the accommodation costs took more than a half of the available money to them. Female students, the students studying in the universities of applied sciences and the students living in the northern parts of Finland were more likely to report that the accommodation costs took more than a half of the money available for them. The proportion of the accommodation expenses within the money available seemed to decline with the age. All these detected interrelations were statistically significant (p=<, 001).

#### 8.2. Employment among higher education students

#### 8.2.1. Full-time employment over the year

Full-time employment of the students during the year was distributed unevenly. A third of the students (33%) did not work at all during the year. A little less than a fifth (18%) worked for three months during the year, whereas every tenth student had full-time employment all year long. However, major proportion of the students (72%) did not work full-time during the academic term.

Male students, older students and university students were more likely to work full-time during the year. The students who did not have children were more likely to work fulltime for 3 to 4 months per year whereas the students having children were more likely to be in the both extremities. The charts 5 and 6 below, display the differences between the youngest and oldest age groups and the differences according to the family composition.

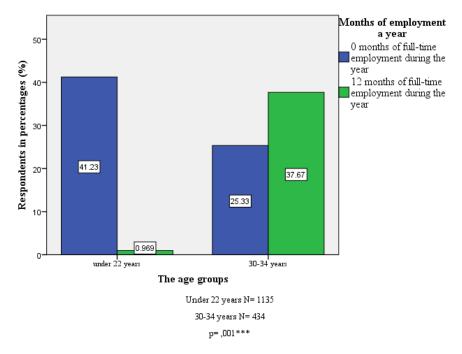


Chart 5. Months of Full-time Employment during the Year by the Youngest and Oldest Age Groups (%)

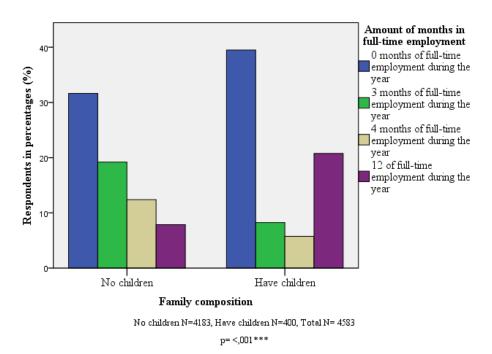


Chart 6. Months (0, 3, 4, 12) of Full-time Employment during the Year by Family Composition

# 8.2.2. Half-day and part-time employment over the year

The major proportion of the students (62%) did not hold regular half-day or part-time jobs neither during the year nor during the academic term (67%). Observed frequencies for the weekly amount of regular half-day job in hours were: median, 00 mean 5, 91 and standard deviation of 8, 84. Female students were more likely to have a regular half-day or part-time job compared to the male students (p= <, 001). The differences were accentuated among the students who did not hold half-day or part-time employment, and among those who worked in half-day or part-time jobs throughout the year. The difference is displayed in chart 7 below.

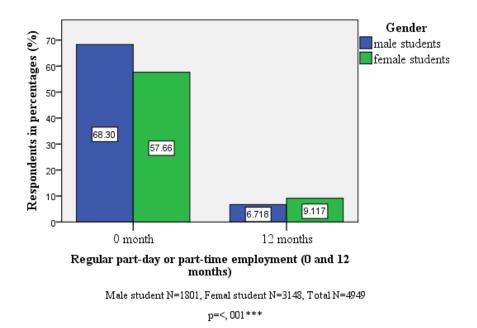
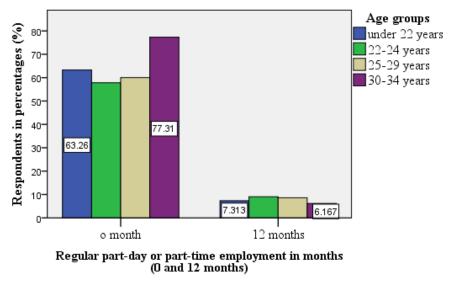


Chart 7. Regular Part-day or Part-time Employment in Months over the Year by Gender (%)

The age group elaboration revealed that the oldest students (aged 30-34) were the least likely to have a regular half-day or part-time job over the year, whereas the students aged 22-24 years were the most likely to have half-day or part-time jobs. Difference is displayed in the chart 8. The students with children were less likely to hold the regular half-day or part-time employment (p=<, 001).



Under 22 year N=1135, 22-24 years N=1847, 25-29 years N=1513, 30-34 years N= 454
Total N= 4949 p=<, 001\*\*\*

Chart 8. Regular Part-day or Part-time Employment over the Year by the Age Groups (%)

# 8.3. Physical activity in relation to students' livelihood among higher education students

8.3.1. Engagement in leisure-time physical activity in relation to students' livelihood among higher education students

Table 7 shows the cross tabulation of leisure-time physical activity and adequacy of the money available in the whole data. The result showed an interrelation between the student's engagement in leisure-time physical activity and adequacy of the money available, so that the students who found their subsistence meager and uncertain appeared to be less active than students who considered their financial situation better (p=<0.001).

Table 7. Engagement to Leisure-time Physical Activity in Relation to the Adequacy of the Money Available (%)

		Very well	I managed well	I managed well if I was economic	My subsistence was very meager and uncertain	
How often do you engage to leisure-	Never or very seldom	10%	7%	9%	14%	10%
time physical activity for at least	1-3 times a month	10%	12%	13%	15%	12%
1/2 hour at once?	Approxonce a week	20%	13%	19%	18%	19%
	2-3 times a month	34%	39%	36%	31%	36%
	46 times a week	19%	18%	18%	16%	18%
	daily	6%	6%	5%	6%	6%
Total		822	1524	1926	719	4991
		100,0%	100,0%	100,0%	100,0%	100,0%

The largest variation was shown in the physical activity categories of "never or very seldom" and "2-3 times a week". 14% of the students who felt that their subsistence was meager and uncertain reported that they engage in leisure-time physical activity for at least half an hour never or very seldom, when the corresponding figures with the students who reported to manage financially very well or well, were 10% and 7%.

Elaboration of the interrelation with the background variables showed a statistically significant association with the male students (p=0,001) and just a little above the statistically significant association with the students of universities of applied sciences (p=0,011). The distributions of the male students and students of universities of applied sciences are shown in charts 9 and 10.

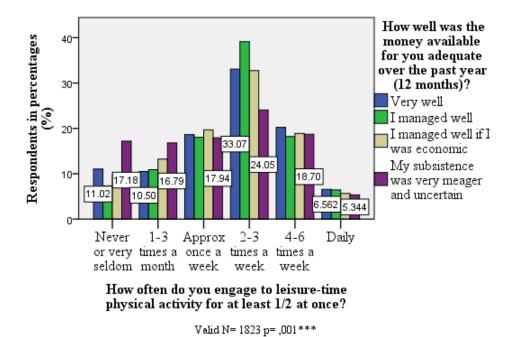
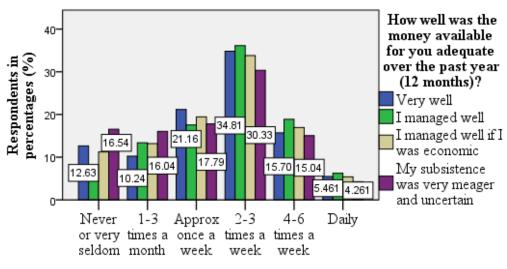


Chart 9. Engagement to Leisure-time Physical Activity in Relation to Adequacy of the Money Available of Male Students (%)



How often do you engage in leisure-time physical activity for at least 1/2 hour at ...

Valid N= 2291 p= 0,011\*

Chart 10. Engagement to Leisure-time Physical Activity in Relation to the Perceived Adequacy of the Money Available of University of Applied Sciences Students (%)

When the leisure-time physical activity in relation to the adequacy of the money available was elaborated with the age groups, the statistically significant interrelation was found only among the students aged under 22 (p=, 003). A similar pattern was also observed with the students who did not have children (p=, 001). The test was compatible with the data analysis among all other background variables excluding the study place since all observed frequencies were of adequate size. The distribution among the students under 22 is shown in chart 11.

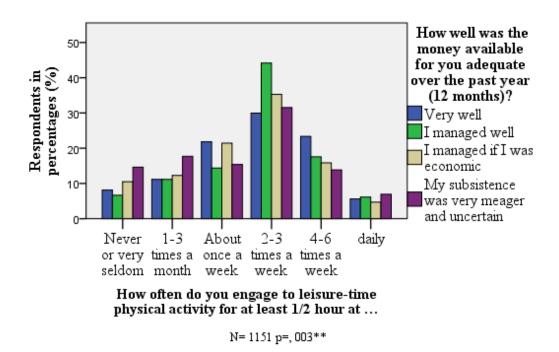


Chart 11. Engagement to Leisure-time Physical Activity in Relation to the Adequacy of the Money Available by Students Aged under 22 years (%)

The result revealed a slight tendency that the students who had to work for their subsistence were more physically active than the students who did not have to work for their subsistence (p= < .001). The differentiation in the whole sample is shown in table 8.

Table 8. Engagement to Leisure-time Physical Activity by Obligated to Work for the Subsistence (%)

		No	Yes	
How often do you engage in leisure-	Never or very seldom	13%	8%	10%
time physical activity for at least	1-3 times a month	13%	12%	12%
1/2 hour at once?	about once a week	17%	19%	19%
	2-3 times a week	35%	37%	36%
	4-6 times a week	17%	18%	18%
	daily	5%	6%	6%
Total		1305	3495	4800
		100,0%	100,0%	100,0%

The interrelation was found with both genders (p=<, 001), the students aged 22-24 (p=, 001) and 25-29 (p=, 002) years old, both educational sectors (university students p=, 001 and university of applied sciences students p=<, 001) and with the students having no children (p=, 001). The differences among the study places were not revealed, because the expected cell frequencies were too small (over 20% under 5). No association was found between the engagement in leisure-time physical activity and receiving economic support from the parents or relatives, or the accommodation costs of more than half of the money available.

### 8.3.2. Engagement in the commuting physical activity in relation to livelihood

The result showed a very minor variation in engagement in commuting physical activity in relation to student's livelihood. However, it appeared that the students who managed very well financially were more likely to engage to commute physical activity more than an hour a day, and the parallel group was less likely to engage in commuting physical activity 15-30 minutes a day compared to the students belonging to other subsistence categories. Nevertheless, the association was not statistically significant.

The statistically significant interrelation was found between the commuting physical activity and "I received economic support from my parents or relatives" (p=, 001) and "my accommodation costs were more than half of the money available for me" (p=, 006). Those students who did not receive economic support from their parents or relatives were more likely to report either very little commuting activity (less than 15 minutes a day) or very much commuting activity (over an hour a day), and the students who did receive economic support from their parents or relatives were more likely to be

found in the middle of the scale reporting either 15-30 minutes or 30-60 minutes of commuting physical activity daily. A similar pattern was also observed among the students aged 25-29 years (p=, 008), but other significant interrelations showed dissimilar patterns. See the differentiation in table 9 below.

Table 9. Engagement to Commuting Physical Activity by Getting Economic Support from Parents or Relatives (%)

			Economic support from parents or relatives			
			No	Yes	Total	
How many minutes a day do you walk or cycle as commuting physical activity?	less than 15 minutes a day		22%	20%	20%	
	15-30 minutes a day		39%	42%	41%	
	30-60 minutes a day		27%	29%	29%	
	over an hour a day		12%	9%	10%	
Total		Count	1303	2972	4275	
			100,0%	100,0%	100,0%	

The result indicated a slight tendency of the students whose accommodation costs consisted of more than a half of the money available, to engage in commuting physical activity a little more in comparison with the students with smaller accommodation costs. The differences are displayed in table 10. The statistically significant interrelation was found among the students of universities of applied sciences (p=, 005), the students without children (p=, 004) and among the students studying at the region of southwest administrative agency (p=, 003).

Table 10. Engagement to Commuting Physical Activity by the Accommodation Expenses (%)

			My accommodation costs took more than half of the money available for me			
			No	Yes	Total	
How many minutes a day do you walk or cycle as commuting physical activity?	Less than 15 minutes a day		23%	13%	20%	
	15-30 minutes a day		40%	42%	41%	
physical activity:	30-60 min pvssä		28%	29%	29%	
	over an hour a day		9%	10%	10%	
Total		Count	1819	2252	4071	
			100,0%	100,0%	100%	

#### 8.3.3. Engagement in the light physical activity in relation to livelihood

The engagement to light physical activity in connection with some other physical activities was shown to be interrelated with the adequacy of the money available in the whole sample (p= <, 001). However, the interrelation was not straightforward. The students who considered their subsistence to be very meager and uncertain were most likely to engage in light physical activities maximum 3 times a month, but this group was also most likely to engage in light physical activities daily or almost daily. The differentiation is shown in table 11.

Table 11. Engagement to Light Physical Activity by the Adequacy of the Money Available (%)

		How well was the money available for you adequate over the past year (12 months)?						
		Very well	I managed well	I managed well if I was economic	My subsistence was very meager and uncertain	Total		
How often do you engage to light	maximum 3 times a month	19%	14%	15%	23%	17%		
physical activity in connection with	1-2 times a week	46%	48%	47%	41%	46%		
other activities?	3-4 times a week	15%	19%	18%	15%	17%		
	daily or almost daily	20%	19%	21%	22%	20%		
Total		821	1526	1922	718	4987		
		100,0%	100,0%	100,0%	100,0%	100,0%		

Chi<sup>2</sup>-test showed a significant interrelation for the male students (p=, 002), the students aged less than 22 years (p= <, 001), to both university (p= <, 001) and university of applied sciences students (p=, 010) and for the students with no children (p= <, 001). The trend with the background variables followed a similar pattern so that the students who thought their subsistence was very meager and uncertain were more likely to report smaller levels of engagement in light physical activities compared to the students who considered their subsistence level to be better, yet also scored high in the category of the daily engagement in light physical activity.

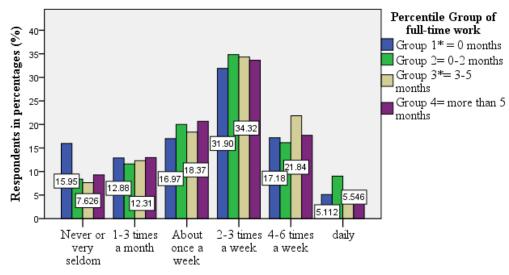
In the whole sample, those students who reported that they had to work for their subsistence were more likely to engage in the light physical activity regularly in comparison with the students who reported not to work. It was also perceived from the whole sample that the students who reported not to get economic support from their parents or relatives were more likely to engage in light physical activity either very little or on daily basis whereas the students who received the economic support from their

parents were more likely to do light physical activities 1-4 times a week. However, the interrelations did not reach the set level of significance.

The interrelation between engagement in light physical activity and the accommodation costs devouring more than half of the money available reached almost statistically significant level (p= ,014). Those students whose accommodation costs were lower than half of the income were more likely to engage in light physical activity either very rarely or rarely, whereas the students whose accommodation costs devoured more than half were more likely to engage in light physical activity either often or at daily basis.

## 8.4. Physical activity in relation to employment among higher education students in Finland

The results indicated a very small variation in engagement in leisure-time physical activity in relation to how many months a student had been fully employed over the past year. The observed differences between the different subsistence categories varied in between 4 percentage points. Chi<sup>2</sup> –test showed no statistically significant association. However, the Chi<sup>2</sup>-test indicated the statistically significant association with engagement in leisure-time physical activity in relation to the months of full-time employment among male students (p=, 010). The differences appeared especially among two groups: those who reported that they engaged in leisure-time physical activities never or very seldom and among the group who reported to engage in leisuretime physical activities 4-6 times a week. The male students who were in the lowest quartile of full-time employment (percentile 25=, 00 months) were more likely to engage in leisure-time physical activity never or very seldom compared to the male students in the upper quartiles of full-time employment (percentile 50 = 3, 00 months and percentile 75= 5, 00 months). Similarly, the male students in the third quartile (i.e. worked between 3-5 months a year) were more likely to engage in leisure-time physical activity 4-6 times a week compared to the male students who worked either less or more than them. The distribution is shown in chart 12 below.



How often do you engage to leisure-time physical ...

\* Data labels are shown. Valid N= 1792 p= , 010

Chart 12.Engagement to Leisure-time Physical Activity by the Months of Full-time Employment Male Students (%)

The interrelation between the leisure-time physical activity and the half-day or part-time employment, followed the similar pattern detected between the leisure-time physical activity and full-time employment (i.e. a slight tendency was detected that those who worked more were more likely to engage in leisure-time physical activity). Nevertheless, the variation in-between the employment quartiles were small and there was no statistically significant association observed within the whole sample. However, two statistically significant interrelation were observed among the background variables. Chi<sup>2</sup>-test revealed the statistically significant interrelation among the male students (p=0,008) and the university students (p=0,003).

#### 9. ANALYSIS AND DISCUSSION

The purpose of this master's thesis was to investigate whether student's own perception of their livelihood among the higher education students in Finland would be interrelated with physical activity and to describe how the interrelation would vary among chosen background variables of gender, age, educational sector, family composition and study place. The interrelation between livelihood problems of the student and physical activity was also examined in the context of employment.

# 9.1. Significance of the background variables in connection with student's livelihood and physical activity behaviour

These results provided strong indication that student's own perception of their livelihood (here after livelihood) among the higher education students in Finland seems to be linked with physical activity behaviour, so that the students who considered their livelihood to be meager and uncertain were less likely to engage in physical activities regularly compared to the students who found to be better off financially. It is probably safe to argue that observed relationship may also be connected with chargeable physical activity services, because link seems to be accentuated with the leisure-time physical activity and also was observed in lesser extent between student's livelihood and commuting physical activity. The link observed between engagement in light physical activities in connection with other activities and student's own perception of their livelihood seemed not to be so straightforward and did not directly support an idea that student's meager livelihood would cause lower levels of light physical activities.

The findings of this study are similar to e.g. Nocon et al.'s (2007) and Mäkinen's (2010) findings that engagement in physical activity seems to be connected with income, although objective income was not used as measurement in this study. Observed connection between student's livelihood and leisure-time physical activity could be related to the change in physical culture in Finland. Koski (2009) noticed that more and more Finnish people participate in organized and structured physical activities. Basically, it means that Finnish physical culture has moved from outdoors to indoors and thus leisure-time physical activity is more connected with people's income and livelihood.

Two interesting issues to speculate with respect to findings are, that why the link between student's livelihood and leisure-time physical activity seems to be accentuated within physical activity categories of 'never or very seldom' and '2-3 times a week', and why the link was not found between leisure-time physical activity and 'receiving support from the parents or relatives' or 'accommodation cost devour more than half of the money available'. Perhaps, the first issue could be related to overall physical activity levels among higher education students. Major proportion of the students (38%) reported to engage in leisure-time physical activity in the Student Health Survey 2008 (Kunttu and Huttunen, 2009, 196). Maybe engagement in leisure-time physical activity 2-3 times a week is a threshold for so called regular physical activity and this is why student's financial difficulties have greater effect within the group reporting leisure-time physical activity 2-3 times a week. It is probably safe to argue that regular leisure-time physical activity require more money than random participation to leisure-time physical activities, for example only once a week. Another decisive marker was students who reported to engage in leisure-time physical activity never or seldom. This could argued to exemplify purest form of connection between student's financial difficulties and engagement in physical activity by reflecting that these students simply just do not have enough money to engage in leisure-time physical activity.

The results showed that there were a little over one fifth of the students whose livelihood was meager and uncertain, but yet reported to engage in leisure-time physical activity 4-6 times a week and on daily basis. It is worth to ponder the impact of lifestyle choices among this population. Tähtinen et al.'s (2002, 49) research that indicated that impact of lifestyle may override effects of the classical structural determinants such as social class and occupational status. Thus, those students who have decided to live physically active lifestyle would continue chosen lifestyle despite of scant livelihood.

Absence of the link between leisure-time physical activity and 'receiving support from the parents or relatives' or 'accommodation cost devoured more than half of the money available' is more difficult to interpret. Educated guess would be that probably economic support from the parents or relatives can be additional form of livelihood and thus would not be significant factor in defining the students' livelihood. Concerning accommodation costs, it could be presumed that the students, whose accommodation costs devour more than half of the money available for them, were left with smaller

amount of expendable money. However, there is no evidence that these same students would perceive their subsistence meager and uncertain as well.

Nevertheless, the results of this study showed that the interrelation between student's livelihood and engagement in leisure-time physical activity varied among the background variables. The interrelation between students' livelihood as to adequacy of the money available and engagement in leisure-time physical activity was accentuated among the male students, the students in universities of applied sciences, the students aged under 22 and among the students with no children. This variation could be attributable to variation in student's livelihood among particular groups, disregarding the male students. Also, the effects originating from the stage of life could be connected to variation among background variables.

Difference in strength of the interrelation between genders is somewhat surprising. One can only ponder why the link between male students' livelihood and engagement in physical activity was more significant than in the case of female students. Perhaps, it may be related to distribution of male students' own perception of their livelihood. At the same time, the impact of different types of physical activities selected by men and women could be pondered, as well as, a significance of the suggested link between higher family affluence and higher physical activity among boys (Currie et al 2012, 129). Interestingly, even though the male students showed higher tendency to be in full-time employment during the year, a link between lack of time and fewer physical activity perceived by Rovio et al (2009, 32) was not shown in this study, since the male students who indicated higher levels of full-time work were also shown to be a little more physically active in comparison with the male students working less.

The results revealed statistically significant interrelation between student's livelihood and engagement in leisure-time physical activity among the students aged under 22. The accentuated interrelation could be related to the observation that the majority of those students receive economic support from the parents or relatives, and are also the least likely to work full-time during a year. These remarks are supported by Saarenmaa et al. (2010, 37-39) who investigated livelihood of the higher education students in Finland and noticed that the students aged 18-24 have the lowest median monthly income (700€ a month) among the whole student population. Similarly, the statistically significant

interrelation found among the students in universities of applied sciences and the students with no children could be explained perhaps by the livelihood levels. The student survey 2010 indicated that the median monthly income of a single higher education student was 771 euros whereas a student living with a spouse and a child had median monthly income of 1470 euros. Also, 47% of students in universities of applied sciences felt that their current income was not enough to cover their monthly costs in comparison with only 30% of the university students. (Saarenmaa et al. 2010, 37-39.) However, the statistically significant interrelation found among the students in universities of applied sciences could also be connected with poor level of the institutions' sports services.

# 9.2. Impact of the life style and life situation on the link between students' livelihood and engagement in physical activity

The theory of social production of disease/political economy is founded on the principle that by creating, enforcing and perpetuating economic privilege and inequality, the economic and political institutions are the cause of social inequalities in health. The changes initiated in the early 1980s in Finland caused also the change in the public administration where an administration model determined by juristic was transformed into a more business-oriented model determined by the organization theory. This meant that the importance of the municipality services was increased. This had a direct effect on the quality and availability of the basic services in different parts of the country. (Heiskala 2006, 31-34.) The second significant political decision that affected Finnish physical culture was a removal of the state labelled amount of money directed to sports. This in part caused that operation of the sports clubs had to be increasingly financed from the member's pocket. (Heikkala et al. 2003, 17). These changes in the Finnish society have led to an increased inequality in accessibility of sports services.

However, the principles of social action refer that social behaviour is composed of the complex set of interrelated factors to which priority to the social behaviour is changed depending on the situation. In other words, even if the economic and political institutions are the cause of social inequalities in health, a person's behaviour in society is influenced by a complex set of factors. The results of this study suggested that this is exactly the case with the interrelation between student's livelihood and engagement in physical activities.

Rovio et al. (2009) argued that although socio-economic status and physical activity seemed to be connected among young adults in Finland, it appeared that socio-economic status is not only factor explaining physical activity behavior of young adults in Finland. The results of this study is parallel with Rovio's et al. findings, but there would a need for more in-depth statistical analysis in order to argue for the association. According to the results of this master's thesis, there appear to be the interrelation between students' livelihood and engagement in physical activity, but that the connection appears to be influenced by the stage of life and lifestyle choices. Two interesting matters were unanswered. First, this master's thesis was not able to identify in which ways students' livelihood is linked with physical activity. So one cannot argue if a student's livelihood problems are causing other problems like stress, worrying, depression and anxiety like suggested by Lavikainen (2012, 46), which are associated also with lower engagement in physical activities, or if the interrelation between livelihood problems and fewer physical activities actually addresses inequalities in terms of income.

Second question unanswered was whether the link between parent's socio-economic status and engagement in physical activity carry from childhood to adulthood and if the students with meager and uncertain livelihood would come from the families with lower socio-economic status. Laakso et al. (2006, 8-10) have found a link between parent's socio-economic status and children's physical activity in Finland, but also between adolescent' own education attainment and the place of residence. Eventually, the complexity surrounding the issue could argued to boil down to the social action. Social action is affected by concurrently influencing factors at which the priority given is depending on situation like suggested by Allard (1983). In addition, it reflects the argument that often there is not one reason for physical activity or inactivity as suggested by Trost et al. (2002).

#### 9.3. Methodological considerations

There were certain weaknesses with the study design. If one was to examine "true relationship" between the socio-economic status of higher education students (or only one dimension of it) and physical activity, the measurement tools should be more precise. Subjective measurement of physical activity has been shown to be problematic

in many ways. First, physical activity can be interpreted in several different ways. It has been speculated that interpretation of physical activity would be in relation to social stratification (Opetusministeriö 2007a, 30). In addition, it has also been showed that adults tend to over-estimate their physical activity levels (e.g. Tammelin 2009). In order to get precise measurement of physical activity levels, it would be important to utilise objective measurement methods for assessing physical activity, for instance accelerometers or pedometers. Nevertheless, the study in question assessed physical activity levels with three different questions so that a respondent was able to make a difference between leisure-time, commuting and light physical activities.

The concept of livelihood is rather problematic as well. It can encompass several meanings. Person's livelihood can be composed of other things beside actual income (e.g. Reijo 2011). This is often the case with the higher education students in Finland. Furthermore, subjective perception of one's livelihood is often formed by comparing oneself with a reference group (Viuhko 2006, 44). So, perception of one's own livelihood can fluctuate depending on the reference group that one is using. Most importantly, the studies have indicated that objectively measured income and subjective perception of that income differ from one another (Reijo 2011, 3). Therefore, objective measurement method assessing the actual monthly income of the students could give more reliable answer on the interrelation between livelihood and physical activity in future studies.

Moreover, objectively measured physical activity and income would enable use of more advanced statistical methods. Cross tabulation as a statistical method is simple and illustrative but not the most effective method for studying dependency of two variables. Objectively measured physical activity and income would have enabled usage of parametric tests, such as calculation of the Pearson correlation coefficient, which had offered stronger results of relationship. However, as the master's thesis made use of earlier collected data, the statistical methods had to be chosen according to the data.

#### 10. SUMMARY AND CONCLUSION

This study investigated an interrelation between higher education student's own perception of their livelihood and engagement in physical activities. Earlier studies have found an association between a person's socio-economic status and health-related behavior. In addition, the link has been found between one's income level and engagement in physical activities. However, the controversial studies appear also in the research area. For instance, a research in Finland has indicated that young adults' engagement in physical activities seems to be linked with one's socio-economic status, but also could be explained by additional factors like the stage of life and lifestyle.

Theoretical foundation for this study was grounded on the principles of social action and the theory of social production of disease/political economy. According to the results of this master's thesis, there appear to be the interrelation between students' livelihood and engagement in physical activity, so that the students who considered their financial situation to be meager and uncertain reported fewer engagement in physical activities. Explicit interrelation was found only between student's livelihood and engagement in leisure-time physical activities, but the interrelation seemed to vary among the different background variables. In addition, the results indicated a slight tendency of students who were employed to report higher levels of leisure-time physical activities. Therefore, it was suggested that the interrelation between student's livelihood and leisure-time physical activity would indeed be connected to the student's income level.

However, there appeared differences in the statistical significance levels among the background variables. The variation concerning statistical significance level of the interrelation observed among the youngest and the oldest age groups, was suggested to be influenced by the differences in stage of life, whereas high levels of physical activities among the students with meager and uncertain livelihood were suggested to be explained by the lifestyle choices. So, the principal conclusion of this study was that student's own perception of their livelihood seems to be connected with engagement in leisure-time physical activities, but that this connection seems also be influenced by the stage of life and lifestyle choices.

Further studies should try to address causal relationship between the higher education students' physical activity and livelihood of the students. Alternatively, further studies could examine how the link between higher education students' perception of their own livelihood and physical activity vary over time using longitudinal study design. Latter could be done already since the Student Health Survey have been carried out in every fourth year starting in 2000. In addition, it was impossible to investigate the impact of the study place regarding to the interrelation between student's own perception of their livelihood and engagement in physical activity. Because the studies in Finland have shown difference regarding accessibility of sports services in-between countryside and the cities, it would be important to investigate the impact of the study place on the link observed between student's own perception of their livelihood and engagement in physical activities.

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APPENDICES Appendix 1

#### Korkeakouluopiskelijoiden terveystutkimus 2008

Hyvä opiskelija

Opiskelijoiden terveyspalvelujen kehittämisen tueksi tarvitaan luotettavaa ja ajankohtaista tietoa. Tämä kysely on ensimmäinen yliopisto- ja ammattikorkeakouluopiskelijoiden yhteinen valtakunnallinen tutkimus; aiemmin on tehty selvityksiä erikseen molemmille. Monet peruskysymykset ovat samoja kuin aikaisemmissa tutkimuksissa, joten saamme tietoa opiskelijoiden hyvinvoinnin trendeistä ja kehittämishankkeiden vaikutuksista. Tutkimustuloksia aikaisemmista kyselyistä on hyödynnetty mm. opiskeluterveydenhuollolle laaditussa oppaassa.

Kyselylomakkeessa on perinteisiä terveyden ja terveyskäyttäytymisen kysymyksiä, mutta siinä kartoitetaan myös muita elämän alueita, jotka kokemuksemme mukaan liittyvät opiskelijan terveyteen ja jaksamiseen. Opiskelua, työssäkäyntiä ja opiskeluolosuhteita koskevat kysymykset ovat erittäin tärkeitä myös korkeakouluille ja opiskelijajärjestöille. Mukana olevat erityisteemat ovat nimenomaan opiskelijoiden ikätai elämänvaiheeseen liittyviä asioita, joista tarvitaan lisätietoa palvelujen parantamiseksi.

Toivomme, että ehdit kyselyyn vastaamisen verran uhrata aikaasi opiskelijoiden yhteiseksi hyväksi! Tarvitsemme tietoa juuri Sinun kokemuksistasi terveyteen ja hyvinvointiin liittyvistä asioista. Vastauksesi on meille erittäin arvokas, kukaan muu ei voi sitä korvata.

Tutkimus koskee myös sivutoimisesti opiskelevia tai tämän lukuvuoden aikana valmistuneita.

## Kyselyyn voi vastata internetissä osoitteessa http://XXXXX/xxxx/??

tai tällä lomakkeella oheisessa palautuskuoressa, vastaanottaja maksaa postimaksun.

Kaikki antamasi tiedot ovat luottamuksellisia ja tulevat vain tutkijoiden käyttöön. Tutkimustulokset käsitellään tilastollisina kokonaisuuksina; yksittäistä vastaajaa ei niistä voi tunnistaa. Kyselyyn vastaaminen on vapaaehtoista.

Tutkimusta koskeviin tiedusteluihin vastaa ylilääkäri Kristina Kunttu, puh. (02) 2747200, kristina.kunttu@yths.fi.

Yhteistyöstä kiittäen

Ylioppilaiden terveydenhoitosäätiö

Suomen ammattikorkeakouluopiskelijayhdistysten liitto SAMOK ry.

#### Vastausohjeet:

Ympyröi Sinun vastaustasi parhaiten kuvaavan vaihtoehdon numero tai kirjoita kysytty tieto sitä varten varattuun tilaan.

Ympyröi kunkin vaihtoehdon kohdalla vain yksi numero, ellei toisin ole mainittu. Vastauksiin toivotaan tieto siitä, miten yleensä toimit, ellei kysymyksessä toisin ole mainittu.

Lue ennen vastaamistasi koko kysymys.

#### **TAUSTATIEDOT**

2 nainen

1. Ikä \_\_\_\_\_ vuotta Huom! Valitse vain yksi vaihtoehto. 2. Sukupuoli Jos sinulla on useampi opiskelupaikkakunta ja koulutusala, vastaa sen mukaan, missä tämän 1 mies lukuvuoden aikana pääasiassa olet suorittanut

opintojasi

#### 3. Opiskelupaikkakunta

1 Espoo	6 Kajaani	11 Lahti	16 Rauma	21 Tornio
2 Helsinki	7 Kemi	12 Lappeenranta	17 Rovaniemi	22 Turku
3 Hämeenlinn	a 8 Kokkola	13 Mikkeli	18 Savonlinna	23 Vaasa
4 Joensuu	9 Kouvola	14 Oulu	19 Seinäjoki	24 Vantaa
5 Jyväskylä	10 Kuopio	15 Pori	20 Tampere	25 Muu, mikä?

|\_\_| useampi kuin yksi opiskelupaikkakunta (Rasti ruutuun)

#### 4a. Koulutusala, yliopisto-opiskelijat

1 Eläinlääketieteen ala	8 Liikuntatieteellinen ala	15 Taideteollinen ala
2 Farmasian ala	9 Luonnontieteellinen ala	16 Tanssiala
3 Hammaslääketieteen ala 1	0 Lääketieteellinen ala	17 Teatteriala
4 Humanistinen ala	11 Maatalous-metsätieteell. ala	18 Teknillistieteellinen ala
5 Kasvatustieteellinen ala	12 Musiikin ala	19 Teologian ala
6 Kauppatieteellinen ala	13 Oikeustieteellinen ala	20 Terveystieteiden ala
7 Kuvataiteen ala	14 Psykologian ala	21 Yhteiskuntatieteellinen ala
useampi kuin yksi koulut	usala	
(Rasti ruutuun)		

#### 4b. Koulutusala, ammattikorkeakouluopiskelijat

1 Humanistinen ja kasvatusala	5 Matkailu-, ravitsemis- ja talousala
2 Kulttuuriala	6 Sosiaali-, terveys- ja liikunta-ala
3 Luonnontieteiden ala	7 Tekniikan ja liikenteen ala
4 Luonnonvara- ja ympäristöala	8 Yhteiskuntatieteiden, liiketalouden ja hallinnon ala
useampi kuin yksi koulutusala	
(Rasti ruutuun)	

#### **TERVEYDENTILA**

5. Onko lääkäri, hammaslääkäri tai psykologi todennut Sinulla jonkin pysyvän, pitkäkestoisen tai usein toistuvan sairauden, vian tai vamman, joka on oireillut tai vaatinut hoitoa <u>viimeksi kuluneen vuoden</u>(12 kk) aikana?

(Tarvittaessa vastaa useampaan kohtaan.)

1 Diabetes 16 Näkövika (silmälasit)

2 Kilpirauhassairaus 17 Silmäsairaus

3 Verenpainetauti, kohonnut verenpaine 18 Korva-, nenä-, kurkkusairaus

4 Sydämen rytmihäiriö tai muu sydänsairaus 19 Hammaskaries (reikä hampaassa)

5 Nivelreuma, selkärankareuma 20 Tulehtunut viisaudenhammas

6 Muu tuki- ja liikuntaelinten sairaus 21 Muu suun tai hampaiden sairaus (purentaelinten, suun limakalvojen tai

7 \* Astma \* kiinnityskudoksen sairaus)

8 Allerginen nuha tai silmätulehdus 22 Migreeni

9 \* Atooppinen ihottuma \* 23 Epilepsia, muu neurologinen sairaus (taiveihottuma, "maitorupi")

10 Akne 24 Syömishäiriö, minkälainen? 1 anorexia

2 bulimia 3 muu

11 Laktoosi-intoleranssi 25 Ahdistuneisuushäiriö (paniikkihäiriö,

sosiaalisten tilanteiden pelko tms.)

12 Muu mahan tai suoliston sairaus

13 Toistuva virtsatietulehdus, munuaissairaus 26 Masennus (depressio)

14 Miesten sukuelinten sairaus 27 Muu mielenterveyden häiriö

15 Gynekologinen sairaus, mikä? 28 Muu sairaus, mikä?

### 6. Millainen on terveydentilasi omasta mielestäsi?

- 1 hyvä
- 2 melko hyvä
- 3 keskitasoinen
- 4 melko huono
- 5 huono

#### 7. Käytätkö nykyisin lääkärin määräämiä lääkkeitä tai e-pillereitä sairauden tai hoitoon?

(Tarvittaessa vastaa useampaan kohtaan.) 0 en käytä mitään

1 säännöllinen lääkitys (tabletit, pistokset, hengitettävät lääkkeet, sumutteet, tipat, voiteet, peräpuikot)

2 käytän tarvittaessa otettavaa lääkettä

### 8. Käytätkö nykyisin ilman reseptiä saatavia lääkkeitä?

0 en käytä tai käytän hyvin

harvoin

- 1 kerran tai pari kuukaudessa
- 2 viikoittain
- 3 päivittäin tai lähes päivittäin

# 9. Kuinka monta tuntia keskimäärin nukut oireiden vuorokaudessa?

|\_\_\_| tuntia

## 10. Nukutko mielestäsi tarpeeksi?

1 kyllä, lähes aina 2 kyllä usein

<sup>\*</sup>Jos sinulla on astma tai atooppinen ihottuma, vastaa myös erillisellä lomakkeella oleviin kysymyksiin. Vastaa niihin myös, jos Sinulla on ollut aikaisemmin atooppinen ihottuma.

3 päivittäin tai lähes päivittäin

3 harvoin tai tuskin koskaan

4 en osaa sanoa

# 11. Pituutesi |\_\_|\_| cm 12. Painosi |\_\_|\_| kg

## 13. Vyötärönympärys mitattuna kylkiluiden alapuolelta

(1-2 cm navan yläpuolelta uloshengityksen lopussa)

Miehet	Naiset
0 Alle 94 cm	0 alle 80 cm
1 94 – 102 cm	1 80 – 88 cm
2 Yli 102 cm	2 yli 88 cm

# **14. Onko verensokerisi todettu joskus olevan koholla** (esim. terveystarkastuksen tai raskauden yhteydessä)

0 ei 1 kyllä

# 15. Onko suvussasi diabetesta (tyyppi 1 tai 2)

0 ei

- 1 kyllä, isovanhemmilla, vanhempien sisaruksilla, serkuilla
- 2 kyllä, vanhemmilla, sisaruksilla tai omilla lapsilla

#### 16. Mitä mieltä olet painostasi? Oletko mielestäsi

- 1 selvästi alipainoinen
- 2 jonkin verran alipainoinen
- 3 sopivan painoinen
- 4 jonkin verran ylipainoinen
- 5 selvästi ylipainoinen

### 17. Onko suhtautumisesi ruokaan normaali?

0 ei 1 kyllä

2 en osaa sanoa

# 18. Oletko jossain elämäsi vaiheessa laihduttanut voimakkaasti?

0 en

1 kyllä, laihduttaminen oli suunniteltu ja hallittu toimenpide

2 kyllä, laihduttaminen muuttui hallitsemattomaksi

#### 19. Onko sinulla ollut murrosiässä syömiseen liittyvää oireilua?

0 ei 1 kyllä

## 20. Jos vastasit kyllä, oletko` saanut silloin hoitoa?

0 ei 1 kyllä

## 21. Minkälaisiksi omalla kohdallasi arvioit seuraavat asiat tällä hetkellä? Vastausohjeet:

-2	-1	0	+1	+2	?
asia on minulle TODELLA ONGELMA, joka ratkaisevasti vaikeuttaa elämääni	asia on minulle SELVÄSTI ONGELMA, mutta ei vaivaa aina ja/tai ei kovin	ei ole ollut aihetta kiinnittää erityistä huomiota	olen yleensä KOKENUT MYÖNTEISE NÄ	merkitsee minulle todella TYYDYTYSTÄ ANTAVAA ASIAA	vaikea sanoa
nykyään	voimakkaasti				

otteen saaminen opiskelusta	- 2	- 1	0	+ 1	+ 2	?
esiintyminen, kuten esitelmän pito	- 2	- 1	0	+ 1	+ 2	?
kontaktin luominen opiskelutovereihin	- 2	- 1	0	+ 1	+ 2	?
ja yleensä ihmisiin						
kontakti vastakkaiseen sukupuoleen	- 2	- 1	0	+ 1	+ 2	?
seksuaalisuuteni	- 2	- 1	0	+ 1	+ 2	?
suhde vanhempiini	- 2	- 1	0	+ 1	+ 2	?
tulevaisuuden suunnitteleminen	- 2	- 1	0	+ 1	+ 2	?
omat voimat ja kyvyt	- 2	- 1	0	+ 1	+ 2	?
mielialani yleensä	- 2	- 1	0	+ 1	+ 2	?

# 22. Onko Sinulla esiintynyt seuraavia oireita <u>viimeisen kuukauden</u> (30 pv) aikana? (Vastaa kaikkiin kohtiin.)

	ei lainkaan	satunnaisesti	viikoittain	päivittäin tai lähes
1. päänsärkyä	0	1	2	3
2. huimausta	0	1	2	3
3. väsymystä tai voimattomuutta	0	1	2	3
4. yläselän tai niskan vaivoja	0	1	2	3
5. alaselän vaivoja	0	1	2	3
6. raajojen tai nivelten kiputiloja	0	1	2	3
7. vatsakipuja, närästystä	0	1	2	3
8. pahoinvointia tai oksennuksia	0	1	2	3
9. ilmavaivoja tai turvotusta	0	1	2	3
10. ummetusta tai ripulia	0	1	2	3
11. ahmimista	0	1	2	3
12. sydämen tykytystä, epäsäännöllisi lyöntejä	ä 0	1	2	3
13. iho-ongelmia	0	1	2	3
14. ääniongelmia	0	1	2	3
15. nuhaa tai tukkoisuutta	0	1	2	3
16. kurkkuvaivoja (kipua, limaa)	0	1	2	3
17. pitkittynyttä yskää tai hengenahdis	tusta 0	1	2	3
18. ienverenvuotoa tai ienvaivoja	0	1	2	3
19. hammasvaivoja (viiltoa, särkyä)	0	1	2	3
20. vaivaa viisaudenhampaista	0	1	2	3
21. purentavaivoja	0	1	2	3
22. nukahtamisvaikeuksia tai heräilyä	yöllä 0	1	2	3
23. keskittymisvaikeuksia	0	1	2	3
24. jännittyneisyyttä tai hermostuneisu	ıutta 0	1	2	3
25. masentuneisuutta tai alakuloisuutta	a 0	1	2	3
26. ahdistuneisuutta	0	1	2	3
27. muuta, mitä?	0	1	2	3

#### 23. Onko Sinulla esiintynyt viimeisen vuoden (12 kk) aikana seuraavia:

(Tarvittaessa vastaa useampaan kohtaan.)

#### Naisten vaivoja?

0 ei

- 1 kuukautiskipuja, joihin tarvitset lääkkeitä
- 2 haittaavan runsas kuukautisvuoto
- 3 kuukautiset poissa yli 6 kk
- 4 epäsäännöllisiä vuotoja
- 5 normaalista poikkeavaa valkovuotoa
- 6 yhdyntäkipuja
- 7 muuta, mitä?

## 24. Oletko viime aikoina pystynyt keskittymään tehtäviisi?

- 1 paremmin kuin tavallisesti
- 2 yhtä hyvin kuin tavallisesti
- 3 huonommin kuin tavallisesti
- 4 paljon huonommin kuin tavallisesti

### 25. Oletko viime aikoina valvonut paljon huolien takia?

- 1 en ollenkaan
- 2 en enempää kuin tavallisesti
- 3 jonkin verran enemmän kuin tavallisesti
- 4 paljon enemmän kuin tavallisesti

# 26. Onko Sinusta viime aikoina tuntunut siltä, että Sinusta on hyötyä asioiden hoidossa?

- 1 enemmän kuin tavallisesti
- 2 yhtä paljon kuin tavallisesti
- 3 jonkin verran vähemmän kuin tavallisesti
- 4 paljon vähemmän kuin tavallisesti

## 27. Oletko viime aikoina tuntenut pystyväsi tekemään päätöksiä?

- 1 paremmin kuin tavallisesti
- 2 yhtä hyvin kuin tavallisesti
- 3 huonommin kuin tavallisesti
- 4 paljon huonommin kuin tavallisesti

#### Miesten vaivoja?

0 ei

- 1 esinahan ongelmia
- 2 vuotoa tai kirvelyä
- virtsaputkessa 3 erektiohäiriöitä
  - 1 ollut aina
  - 2 usein
  - 3 satunnaisesti
- 4 liian nopeata siemensyöksyä

(< 2 min)

5 viivästynyttä tai

estynyttä siemensyöksyä

6 eturauhasen vaivoja

7 muuta, mitä?

# 28. Oletko viime aikoina tuntenut olevasi jatkuvasti ylirasittanut?

- 1 en ollenkaan
- 2 en enempää kuin tavallisesti
- 3 jonkin verran enemmän kuin tavallisesti
- 4 paljon enemmän kuin tavallisesti

# 29. Onko sinusta viime aikoina tuntunut, ettet voisi selviytyä vaikeuksistasi?

- 1 paremmin kuin tavallisesti
- 2 yhtä hyvin kuin tavallisesti
- 3 huonommin kuin tavallisesti
- 4 paljon huonommin kuin tavallisesti

# 30. Oletko viime aikoina kyennyt nauttimaan tavallisista päivittäisistä toimistasi?

- 1 enemmän kuin tavallisesti
- 2 yhtä paljon kuin tavallisesti
- 3 vähemmän kuin tavallisesti
- 4 paljon vähemmän kuin tavallisesti

# 31. Oletko viime aikoina kyennyt kohtaamaan vaikeuksia?

- 1 paremmin kuin tavallisesti
- 2 yhtä hyvin kuin tavallisesti
- 3 huonommin kuin tavallisesti
- 4 paljon huonommin kuin tavallisesti

## 32. Oletko viime aikoina tuntenut itsesi onnettomaksi ja masentuneeksi?

- 1 en ollenkaan
- 2 en enempää kuin tavallisesti
- 3 jonkin verran enemmän kuin tavallisesti
- 4 paljon enemmän kuin tavallisesti

### 33. Oletko viime aikoina menettänyt itseluottamustasi?

- 1 en ollenkaan
- 2 en enempää kuin tavallisesti
- 3 jonkin verran enemmän kuin tavallisesti
- 4 paljon enemmän kuin tavallisesti

### 34. Oletko viime aikoina tuntenut itsesi arvottomaksi?

- 1 en ollenkaan
- 2 en enempää kuin tavallisesti
- 3 jonkin verran enemmän kuin tavallisesti
- 4 paljon enemmän kuin tavallisesti

# 35. Oletko viime aikoina tuntenut itsesi kaiken kaikkiaan kohtalaisen onnelliseksi?

- 1 enemmän kuin tavallisesti
- 2 yhtä paljon kuin tavallisesti
- 3 vähemmän kuin tavallisesti
- 4 paljon vähemmän kuin tavallisesti

# 36. Oletko koskaan tuntenut tarvetta käyttää pelaamiseen yhä enemmän rahaa?

0 en 1 kyllä

# 37. Oletko koskaan valehdellut läheisillesi siitä, kuinka paljon käytät rahaa pelaamiseen?

0 ei 1 kyllä

# 38. Kuinka usein huomaat olleesi netissä pitempään kuin olit alun perin ajatellut?

- 0 en koskaan
- 1 hyvin harvoin
- 2 harvoin
- 3 melko usein
- 4 usein
- 5 aina tai hyvin usein

# 39. Kuinka monta tuntia vuorokaudessa olet keskimäärin käyttänyt aikaasi netissä seuraavien asioiden vuoksi (Arvio aika viimeksi kuluneen kuukauden tilanteen mukaan. Merkitse 0, jos ei yhtään)

tuntia min

- 1 Opiskelu
- 2 Ansiotyö
- 3 Muu tiedonhaku, verkkolehtien lukeminen
- 4 Radion kuuntelu
- 5 Internet-puhelut (esim. skype)
- 6 Sähköposti
- 7 Asioiden hoito (pankki, matkat, työnhaku yms)
- 8 Keskustelupalstat, chattailu, yhteisöt yms
- 9 Pelien pelaaminen
- verkossa 10 Muu asia, mikä?

Yhteensä

	<u>ei</u>	<u>kyllä</u>
40. Aiheutuuko netin käytöstä ongelmia ihmissuhteissasi?	0	1
41. Aiheuttaako netissä viettämäsi aika ongelmia opiskelussasi?	0	1
42. Aiheuttaako netissä viettämäsi aika ongelmia vuorokausirytmissäsi?	0	1

#### **LIIKUNTA**

# 43. Kuinka usein harrastat vapaa-ajan kuntoliikuntaa vähintään ½ tuntia kerrallaan niin, että ainakin lievästi hengästyt ja hikoilet

(esim. lenkkeilyä, pyöräilyä, voimistelua, uintia, pallopelejä)?

0 en lainkaan tai hyvin harvoin

11 – 3 kertaa kuukaudessa

2 noin kerran viikossa

32 - 3 kertaa viikossa

4 4 – 6 kertaa viikossa

5 päivittäin

# 44. Jos harrastat edellisen kysymyksen kuntoliikuntaa, kuinka monta tuntia viikossa?

Viikossa yhteensä noin	 	tuntia

# 45. Kuinka monta minuuttia kävelet tai pyöräilet päivittäin hyötyliikuntana

(edestakaiset matkat oppilaitokseen, harrastuksiin, töihin ym.)?

0 alle 15 minuuttia päivässä 1 15 – 30 minuuttia päivässä 2 30 – 60 minuuttia päivässä

3 yli tunnin päivässä

		aikai- semmin	nykyisin
Sallittuja aineita esim. proteiinivalmisteita	0	1	2
Kiellettyjä doping-	0	1	2

47. Kenen järjestämään

0 en harrasta liikuntaa 1 omatoimisesti yksin

kohtaan)

liikuntatoimintaan osallistut?

2 omatoimisesti ystävän kanssa

/opiskelijakunnan järjestämä liikunta

4 ainejärjestön tms. liikuntatoiminta

urheilusuorituksia, liikuntaa tai

käyttänyt käytän

voimaa parantavia aineita?

3 korkeakoulun tai ylioppilas-

5 urheiluseura (muu kuin

7 kaupalliset liikuntapalvelut

8 kunnalliset liikuntapalvelut

48. Oletko käyttänyt tai

6 muu järjestö, mikä \_\_

käytätkö nykyisin

En

oppilaitoksen)

(Tarvittaessa vastaa useampaan

Viikossa yhteensä noin	tuntia
1 integer y 11001100 110111	

46. Kuinka usein harrastat kevyttä liikuntaa vähintään ½ tuntia kerrallaan tai liikut muun harrastuksen yhtey-

dessä (esim. kävely, luonnossa kulkeminen, tanssiminen, koiran ulkoiluttaminen, kotityöt)?

aineita

0 enintään 3 kertaa kuukaudessa

- 11 2 kertaa viikossa
- 23 4 kertaa viikossa
- 3 päivittäin tai lähes päivittäin

#### **RAVINTO**

#### 49. Noudatatko jotain erityisruokavaliota?

0 1	en kyllä, mitä? (Tarvittaessa vastaa useampaan kohtaan.)				
5 ruokavalio o 6 ruokavalio, j 7 laktovegeta	avalio ruokavalio valio ruoka-aineyli liabeteksen, korke oka sisältää kasvi arinen ruokavalio ( kavalio (vain kasvilo	an kolestero ksia, maitoto (kasvisruoka	olin tai kohonne uotteita sekä m avalio + maitotu	iunaa, kanaa	
50. Ajattelet terveellisyy	ko ruokaa hank ttä?	kiessasi s	sen		svaa käytät <u>een</u> leivällä?
0 en koskaan 1 silloin tällöir 2 usein	tai hyvin harvoin			rasvaa	että, jossa on alle 65% ossa on 70-80% rasvaa
	seimmiten syöt	•	si?	<ul><li>3 voita</li><li>4 muita vähärasvaisia valmisteita</li></ul>	
1 opiskelija- ta 2 omalla asur 3 vanhempier		assa		5 jotakin mu	ulatejuustot tms.) uta
4 muualla					etta syöt tavallisesti
pöydässä?	usein lisäät ruol	Kaasi Suoi	aa		, jos et syö lainkaan. lempiin kohtiin)
	ssa tai harvemmin kerran viikossa		tummaa leipä (ruis-, näkkilei seka-, hiiva-, tai kauraleipä	pä ym.) <b>graham-</b>	viipaletta
lasillinen = 3 käytät taval Ota huomioo murojen, my käyttämäsi n	slin, puuron tai k naito. jos et käytä laink	oiimää ? aakaon ka	·		

#### 56. Kuinka usein viimeksi kuluneen viikon(7 pv) aikana söit seuraavia?

(Vastaa jokaiseen kohtaan.)

( Vaotaa jortaiocon	Normaai	·· <i>)</i>				
	en kertaa- kaan	1-2 päivänä	3-5 päivänä	noin kerran päivässä	2 kertaa päivässä	3 kertaa päivässä tai
	Radii			paivaooa	parvaooa	parvaooa tar
hedelmiä tai marjoja	0	1	2	3	4	5
tuoreita kasviksia	0	1	2	3	4	5
kypsennettyjä kasvik	sia					
(ei perunaa)	0	1	2	3	4	5
puuroa, mysliä,						
muroja	0	1	2	3	4	5
jogurttia tai viiliä						
(1,5-2 dl annoksia)	0	1	2	3	4	5
jäätelöä	0	1	2	3	4	5
makeita leivonnaisia	0	1	2	3	4	5
makeisia, suklaata	0	1	2	3	4	5
sokeroituja juomia						
(myös alkoholi-						
ja energiajuomat)	0	1	2	3	4	5
light-juomia	0	1	2	3	4	5
ranskanperunoita	0	1	2	3	4	5
perunalastuja tms.	0	1	2	3	4	5
juustoa	0	1	2	3	4	5
pizzaa	0	1	2	3	4	5

#### **HAMPAIDEN HOITO**

#### 57. Miten usein harjaat hampaasi?

- 0 harvemmin kuin kerran päivässä
- 1 kerran päivässä
- 2 useammin kuin kerran päivässä

#### 58. Käytätkö hammastahnaa?

- 0 harvemmin kuin kerran päivässä
- 1 kerran päivässä
- 2 useammin kuin kerran päivässä

#### 59. Käytätkö hammaslankaa?

- 0 en ollenkaan
- 1 silloin tällöin
- 2 päivittäin

#### 60. Käytätkö ksylitolipurukumia tai muita ksylitolilla makeutettuja tuotteita?

0 en käytä

- 1 käytän silloin tällöin
- 2 käytän kerran päivässä
- 3 käytän vähintään kaksi

kertaa päivässä

#### TUPAKKA, HUUMEET, ALKOHOLI

#### 61. Tupakoitko nykyisin?

0 en lainkaan

- 1 kyllä, harvemmin kuin kerran viikossa
- 2 kyllä, viikoittain, mutta en päivittäin
- 3 kyllä, päivittäin
- 0 en käytä lainkaan

## 62. Käytätkö nuuskaa ("biittiä, mälliä, purutupakkaa?)

0 en käytä lainkaan

- 1 käytän satunnaisesti
- 2 käytän säännöllisesti
- 3 olen käyttänyt, mutta lopettanut

## 63. Oletko koskaan kokeillut tai käyttänyt jotakin huumetta, lääkkeitä tai lääkkeitä + alkoholia yhdessä päihtyäksesi?

0 en koskaan

1 kyllä. Jos olet käyttänyt, niin

(Vastaa kaikkiin kolmeen kysymykseen)

64. Mitä?	65. Montako kertaa?		66. Oletko käyttänyt ainakin kerran viimeisen 12 kk aikan		
	1-4	5 kertaa	en	kyllä	
	kertaa	tai enemmän			
1 kannabis	1	2	0	1	
(hasis, marihuana)					
2 tinneri, liima tms.	1	2	0	1	
3 lääkkeitä ja alkoholia yhdessä	1	2	0	1	
4 lääkkeitä päihtyäksesi	1	2	0	1	
5 ekstaasi	1	2	0	1	
6 subutex tai temgesic	1	2	0	1	
7 heroiini, kokaiini, amfetamiini, LSD, gamma tms.	1	2	0	1	

# 67. Tuntuuko Sinusta siltä, että joudut tovereidesi vaikutuksesta käyttämään enemmän alkoholia kuin oikeastaan itse haluaisit?

1 ei

2 silloin tällöin

3 usein

# 68. Jos olet juhlissa tai illanvietoissa, joissa tarjoillaan alkoholia, onko myös alkoholiton vaihtoehto tarjolla?

- 1 yleensä aina
- 2 silloin tällöin
- 3 ei juuri koskaan

#### Yksi alkoholiannos =

pullo (=33 cl), keskiolut, siideri, long drink lasillinen (=12 cl), mieto viini

lasillinen (=8 cl ), väkevä viini lasillinen (=4 cl ), väkevä alkoholi

#### 69. Jos joku seurueestasi valitsee alkoholittoman vaihtoehdon, herättääkö tämä huomiota muissa?

- 1 ei yleensä
- 2 silloin tällöin
- 3 lähes aina

# 70. Montako lasillista tai pullollista juot seuraavia alkoholijuomia keskimäärin viikon aikana? (Ellet juo yhtään, merkitse 0. Vastaa jokaiseen kohtaan)

III olutta    pullollista
IV A-olutta    pullollista
siideriä    pullollista
long drink –juomia
pullollista viiniä    lasillista
väkevää alkoholia       lasillista

#### 71. Kuinka usein käytät alkoholia?

0 en koskaan

(jos et ole koskaan käyttänyt alkoholia, voit siirtyä suoraan kysymykseen 81)

1 kuukausittain tai harvemmin 2a 2 – 3 kertaa kuukaudessa

2b kerran viikossa

32 – 3 kertaa viikossa

4 neljä kertaa viikossa tai useammin

## 72. Kun käytät alkoholia, montako annosta tavallisimmin otat päivässä?

- 0 1 2 annosta
- 1 3 4 annosta
- 25 6 annosta
- 37 9 annosta
- 4 10 annosta tai enemmän

### 73. Kuinka usein juot kerrallaan vähintään kuusi annosta?

- 0 en koskaan
- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 74. Kuinka usein viimeisen vuoden aikana et ole aloitettuasi pystynyt lopettamaan juomistasi?

0 pystyn aina lopettamaan

- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 75. Kuinka usein viimeisen vuoden aikana et juomisesi takia ole pystynyt tekemään, mitä olet aikonut?

0 juominen ei koskaan estä suunnitelmiani

- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 76. Kuinka usein viimeisen vuoden aikana olet tarvinnut krapularyyppyjä?

- 0 en koskaan
- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 77. Kuinka usein viimeisen vuoden aikana olet tuntenut syyllisyyttä tai katumusta juomisen jälkeen?

- 0 en koskaan
- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 78. Kuinka usein viimeisen vuoden aikana et juomisesi takia ole muistanut edellisen illan tapahtumia?

0 muistan aina, mitä tapahtui

- 1 harvemmin kuin kuukausittain
- 2 kuukausittain
- 3 viikoittain
- 4 lähes päivittäin

# 79. Oletko juomisellasi aiheuttanut tapaturmia itsellesi tai seuralaisellesi?

0 en

- 2 kyllä, mutten vuoden sisällä
- 4 kyllä, vuoden sisällä

80. Onko sukulainen, ystävä, lääkäri tai joku muu henkilö ollut huolissaan juomisestasi tai ehdottanut, että vähentäisit tai lopettaisit juomisesi?

0 ei

- 2 kyllä, muttei vuoden sisällä
- 4 kyllä, vuoden sisällä

0	P	ISI	K	F	ı	П

81. Montako lukuVUOTTA olet ollu	ut
kirjoilla läsnä olevana opiskelijana	a
nykyiseen opiskeluusi liittyen?	
(Mukaan lukien kuluva lukuvuosi)	

•

	l lukuvuotta

82. Kuinka monta opintoviikkoa tai -pistettä olet suorittanut 31.1.2008 mennessä nykyiseen opiskeluusi liittyen?

Huom! Ilmoita määrä joko opintoviikkoina tai opintopisteinä.

 .	opinto	viikkoa

TAI

	opintopistettä
--	----------------

83. Minä vuonna arvioit valmistuvasi?

Jos opiskelet useampaa alaa, niin minä vuonna arvioit suorittavasi tutkinnon nykyisistä opinnoistasi?

0 vuonna 20|\_\_\_|\_\_|

1 olen valmistunut tänä lukuvuonna

#### 84. Opiskeletko mielestäsi

- 1 päätoimisesti
- 2 sivutoimisesti
- 3 muulla tavoin, miten \_\_\_\_\_

#### 85. Omiin tavoitteisiisi verrattuna, onko opintomenestyksesi ollut

- 1 odotettua parempi
- 2 odotusten mukainen
- 3 odotettua huonompi

# 86. Koetko olevasi oikealla opiskelualalla?

0 en

1 kyllä

2 en osaa sanoa

#### 87. Onko oppilaitoksesi taholta opintoihisi saamasi ohjaus ja neuvonta viimeksi kuluneen vuoden (12kk) ollut?

- 0 täysin riittämätöntä
- 1 jonkin verran vajavaista
- 2 kohtuullista tai vaihtelevaa
- 3 hyvää
- 4 erittäin hyvää

## 88. Onko opiskelutilanteissa jännittäminen sinulle mielestäsi ongelma? (Vastaa kaikkiin kohtiin)

en jännitä jännitän joskus, lievä ongelma suuri ongelma ei ongelma tenteissä ja kokeissa 0 2 3 1 yleisöpuhetilanteissa, 0 1 2 3 esitelmissä yms. 0 1 2 3 seminaareissa vieraan kielen puhumisessa 0 1 2 3 opettajan tai ohjaajan kanssa 0 2 1 3 keskustellessa 2 1 muussa tilanteessa, missä? 0 3

### 89. Miten opiskelutilanteissa jännittäminen mielestäsi vaikuttaa?

0 ei mitenkään 1 vaikuttaa myönteisesti (saan energiaa, virkistyn tms.) 2 vaikuttaa haitallisesti (vastaa myös seuraavaan kysymykseen)

#### 90. Jos vaikuttaa haitallisesti, miten?

(Tarvittaessa vastaa useampaan kohtaan.)

1 suoriudun tilanteesta huonommin kuin osaamiseni edellyttäisi
2 vaikeuttaa keskittymistäni ja oppimistani
3 osallistun keskusteluun tavallista vähemmän
4 tulee huono olo
5 lamaannun, vaikea toimia
6 muu vaikutus, mikä

## 91. Valitse se vaihtoehto, joka kuvaa parhaiten opiskeluolosuhteitasi. Valintojen tulisi kuvata nykyistä opiskelutilannettasi.

Viimeksi kuluneen kuukauden aikana	Täysin eri mieltä	Eri mieltä	Osittain eri mieltä	Osittain samaa mieltä	Samaa mieltä	Täysin samaa mieltä
1 Tunnen hukkuvani opintoihini liittyvään työmäärään	1	2	3	4	5	6
2 Tunnen itseni haluttomaksi opinnoissani ja ajattelen usein lopettaa opiskelun.	1	2	3	4	5	6
3 Minulla on usein riittämättömyyden tunteita opinnoissani.	1	2	3	4	5	6
4 Nukun usein huonosti erilaisten opiskeluasioiden takia.	1	2	3	4	5	6
5 Minusta tuntuu, että olen menettämässä kiinnostukseni opiskelua kohtaan.	1	2	3	4	5	6
6 Pohdin alituiseen, onko opiskelullani merkitystä.	1	2	3	4	5	6

7 Minusta tuntuu, että minulla on yhä vähemmän annettavaa opinnoissani.	1	2	3	4	5	6
8 Murehdin opiskeluasioita paljon myös vapaa-aikana.	1	2	3	4	5	6
9 Odotin ennen saavani opinnoissani paljon enemmän aikaan kuin nyt.	1	2	3	4	5	6
10 Opiskelujen paine aiheuttaa ongelmia läheisissä ihmissuhteissani.	1	2	3	4	5	6
11 Opiskellessani olen täynnä energiaa.	1	2	3	4	5	6
12 Opiskelu on minulle hyvin merkityksellistä.	1	2	3	4	5	6
13 Aika tuntuu lentävän siivillä, kun opiskelen.	1	2	3	4	5	6
14 Opiskellessani tunnen itseni tarmokkaaksi.	1	2	3	4	5	6
15 Olen innoissani opiskelusta.	1	2	3	4	5	6
16 Kun työskentelen opintojeni parissa, unohdan kaiken ympäriltäni.	1	2	3	4	5	6
17 Opiskelu inspiroi minua.	1	2	3	4	5	6
18 Kun herään aamulla, minusta tuntuu. hyvältä lähteä opiskelemaan	1	2	3	4	5	6
19 Olen uppoutunut opiskeluuni.	1	2	3	4	5	6

#### TOIMEENTULO JA TYÖSSÄKÄYNTI

# 92. Miten käytettävissäsi olevat rahat riittivät viimeksi kuluneen vuoden (12 kk) aikana?

- 1 erittäin hyvin
- 2 tulin hyvin toimeen
- 3 tulin toimeen, kun elin säästäväisesti
- 4 toimeentuloni oli erittäin niukka ja epävarma

## 93. Arvioi taloudellista tilannettasi viimeksi kuluneen vuoden (12 kk) aikana

	eı	купа	en osaa sanoa
Minun oli käytävä töissä toimeentuloni takaamiseksi	0	1	2
Sain vanhemmiltani tai sukulaisiltani taloudellista.	0	1	2
tukea rahana, tavarana tms Asumismenoni veivät yli puolet käytössäni olleista varois	ta 0	1	2

## **94. Oletko ollut viimeksi kuluneen vuoden (12 kk) aikana ansiotyössä?** (Merkitse 0, jos ei yhtään)

		Liittyikö työ opiskelualaa	si?
Kokopäivä työ (30 tuntia viikossa tai yli)	yhteensä   _  kuukautta, josta lukuvuoden aikana   _  kuukautta	kyllä	ei
Säännöllinen osapäivä- tai osa-aikatyö (alle 30 tuntia viikossa)	noin     tuntia viikossa yhteensä     kuukautta, josta lukuvuoden aikana     kuukautta	kyllä	ei
Keikkatöitä lukuvuoden aikana (lyhyitä, alle 1 kk työjaksoja epäsäännöllisesti)	0 ei lainkaan 1 satunnaisesti 2 usein	kyllä	ei

#### 95. Mikä on perhemuotosi tällä hetkellä?

1 asun yksin omassa taloudessani tai soluasunnossa
2 asun yhteistaloudessa tai kimppakämpässä (yhteinen vuokrasopimus)
3 asun kaksin puolisoni kanssa (avo- tai avioliitossa / rekisteröidyssä parisuhteessa)
4 asun puolison ja lapsen/lasten kanssa
5 asun yksin lapsen / lasten kanssa
6 asun vanhempien luona
7 muu, mikä?

## 96. Onko Sinulla parisuhde (vakituinen sukupuolisuhde)?

0 ei 1 on yksi 2 on kaksi tai useampia

# 97. Kuinka monta kertaa olet elänyt avotai avioliitossa tai rekisteröidyssä parisuhteessa?

0 en koskaan 1 kyllä |\_\_\_\_| kertaa (nykyinen liitto mukaan lukien)

98.	Montako	lasta	Sinul	la on?
	_  lasta			

#### 99. Montako lasta haluaisit?

|\_\_\_| lasta

100. Jos haluaisit lapsia, eikä Sinulla vielä ole, niin minkä ikäisenä haluaisit ensimmäisen lapsesi?

Noin \_\_\_\_\_ -vuotiaana

# 101. Oletko Sinä tai kumppanisi raskaana?

0 en 1 kyllä

# 102. Kuinka usein olet yhdessä ystäväsi tai ystäviesi kanssa vapaa-aikanasi?

0 harvemmin kuin kerran kuukaudessa 1 1-3 kertaa kuukaudessa 2 noin kerran viikossa 3 2-3 kertaa viikossa 4 lähes joka päivä

#### 103. Koetko olevasi yksinäinen?

0 en

1 kyllä, ajoittain

2 kyllä, usein

# 104. Koetko kuuluvasi johonkin, mihin tahansa, opiskeluun liittyvään

**ryhmään** (esim. vuosikurssiin, laitokselle, graduryhmään, ainejärjestöön tms.)

0 en

- 1 kyllä
- 2 en osaa sanoa

#### 105. Voitko halutessasi keskustella jonkun läheisesi kanssa avoimesti asioistasi ja ongelmistasi?

0 en koskaan

- 1 hyvin harvoin
- 2 joskus tai joistakin asioista
- 3 usein
- 4 aina tai useimmiten

106. Miten usein olet viimeisen (12 kk) aikana osallistunut jonkin yhdistyksen tai seuran toimintaan (esim. liikuntaseura, soittokunta, tieteellinen tai uskonnollinen yhdistys, ainejärjestön tai yo-kunnan toiminta, partio tms. toiminta)?

0 hyvin harvoin tai en lainkaan 1 muutaman kerran vuodessa 2 1 – 3 kertaa kuukaudessa 3 kerran viikossa tai useammin

#### **TERVEYSPALVELUT**

## 107. Kun <u>viimeksi</u> kävit YTHS:ssä /opiskeluterveydenhuollossa vastaanotolla, millaiseksi koit saamasi palvelun?

·	täysin samaa mieltä	jokseenkin samaa mieltä	hiukan eri mieltä	täysin eri mieltä
Sain selvyyden minua huolestuttaneisiir asioihin	n 1	2	3	4
Minua kuultiin ja tunsin tulevani ymmärretyksi	1	2	3	4

## **108. Syy muiden kuin YTHS:n / opiskeluterveydenhuollon palvelujen käyttöön?** (Tarvittaessa vastaa useampaan kohtaan.)

0 En ole käyttänyt muita palveluja

1 En ole kuulunut koko vuotta opiskeluterveydenhuollon palveluiden piiriin

2 Olen ollut töissä / armeijassa / raskaana

3 Olen saanut lähetteen muualle

4 Minulla on entuudestaan hoitosuhde muualla

5 Olen tarvinnut apua paikkakunnalla, jossa ei ole mainittuja palveluja

6 Olen tarvinnut apua päivystysaikaan

7 Opiskeluterveydenhuolto ei tarjoa tarvitsemaani palvelua tai en saa sitä enää

8 En ole päässyt tarpeeksi nopeasti opiskeluterveydenhuoltoon hoitoon

9 En ole ollut tyytyväinen opiskeluterveydenhuollon palveluihin

10 Muu syy, mikä? \_\_\_\_\_

# 109. Oletko käynyt lääkärin, terveydenhoitajan tai jonkun muun alla mainitun terveydenhuollon ammattilaisen vastaanotolla viimeksi kuluneen vuoden (12 kk) aikana?(Vastaa kaikkiin kohtiin.)

	,	en	kerran	2– 5 kertaa	yli 5 kertaa
TERVEYDEN	- YTHS / kunnallinen opiskeluterveydenhuolt	0 0	1	2	3
HOITAJA	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
FYSIO-	YTHS / kunnallinen opiskeluterveydenhuolto	0	1	2	3
TERAPEUTTI	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
YLEIS-	YTHS / kunnallinen opiskeluterveydenhuolto	0	1	2	3
LÄÄKÄRI	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
ERIKOIS-	YTHS / kunnallinen opiskeluterveydenhuolto	0	1	2	3
LÄÄKÄRI	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
SUU-	YTHS / kunnallinen opiskeluterveydenhuolto	0	1	2	3
HYGIENISTI	Terveyskeskus*	0	1	2	3
(hammas- hoitaja)	Muu palvelun tarjoaja	0	1	2	3
HAMMAS-	YTHS / kunnallinen opiskeluterveydenhuolto	0	1	2	3
LÄÄKÄRI	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
ERIKOIS-	YTHS / kunnallinen opiskeluterveydenhuolto	0 0	1	2	3
HAMMAS-	Terveyskeskus*	0	1	2	3
LÄÄKÄRI	Muu palvelun tarjoaja	0	1	2	3
PSYKOLOGI	YTHS / kunnallinen opiskeluterveydenhuolto	0 0	1	2	3
	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3
PSYKIATRI	YTHS / kunnallinen opiskeluterveydenhuolto	0 0	1	2	3
	Terveyskeskus*	0	1	2	3
	Muu palvelun tarjoaja	0	1	2	3

<sup>\*</sup> muu kuin opiskeluterveydenhuolto

# 110. Haluaisitko apua, esim. yksilöllistä neuvontaa, ryhmäkokoontumisia, kursseja, luentoja tms. seuraavissa asioissa? (Tarvittaessa voit ympyröidä useitakin kohtia)

1 stressinhallinta 2 jännittämisongelmat	9 ergonomia 10 alkoholinkäytön hallinta
3 ihmissuhde- tai itsetuntoasiat	11tupakoinnin lopettaminen
4 seksuaalisuus	12 muu riippuvuusongelma (pelaaminen, netti ym.)
5 syömisongelmat	13 opiskelun ongelmat tai opiskelutekniikka
6 ravitsemusasiat	14 allergia-asiat, ihon hoito
7 painonhallinta	15 rokotukset
8 liikunta	16muu ongelma, mikä

#### KIUSAAMISKOKEMUKSET

Koulukiusaamisella tarkoitetaan sitä, että oppilas joutuu yhden tai useamman muun oppilaan toistuvan loukkaamisen, vahingoittamisen ja/tai syrjimisen kohteeksi pystymättä vaikuttamaan saamaansa kohteluun.

## 111. Minkä verran sinua kiusattiin kouluaikanasi?

- 0 ei juuri ollenkaan
- 1 joitakin kuukausia
- 2 vuoden verran
- 3 useita vuosia

# 112. Jos ajattelet niitä ajanjaksoja, jolloin sinua kiusattiin, kuinka toistuvaa kiusaaminen silloin oli?

- 0 ei kiusattu koskaan
- 1 satunnaista, silloin tällöin
- 2 viikoittaista
- 3 päivittäistä

#### 113. Jos sinua kiusattiin, millaisen kiusaamisen kohteeksi jouduit?

	en koskaan	silloin tällöin	kerran v	iikossa	päivittä	in
Fyysisen vahingoittamisen	1	2	3		4	
Verbaalisen loukkaamisen	1	2	3		4	
Syrjimisen	1	2	3		4	
Kaverisuhteiden vahingoittamiser	n 1	2	3		4	
		_	en koskaan	hyvin vähän	melko paljon	hyvin paljon
114. Jos vertaat itseäsi kullo luokkatovereihisi, kuinka pa toisia oppilaita?	_	usasit	0	1	2	3
115. Oletko opiskeluaikanas toistuvasti yhden tai useami loukkaamisen, vahingoittam kohteena?	man muun (	opiskelijan	0	1	2	3
116. Oletko mielestäsi opisk loukannut, vahingoittanut ta jotakuta toista opiskelijaa ta	i syrjinyt to	istuvasti	0	1	2	3

#### **SEKSUAALITERVEYS**

### 117. Onko seksuaalinen suuntautuneisuutesi?

- 1 Heteroseksuaalinen
- 2 Homoseksuaalinen
- 3 Biseksuaalinen

## 118. Minkä ikäisenä olit ensimmäisen kerran sukupuoliyhdynnässä?

|\_\_\_\_| -vuotiaana

# 119. Kuinka usein olet viimeisen kuukauden aikana ollut sukupuoliyhdynnässä?

- 0 en koskaan
- 1 harvemmin kuin kerran viikossa
- 2 viikoittain

# 120. Oletko sairastanut Klamydia sukupuolitaudin?

0 en 1 kyllä

121. Mitä raskauden ehkäisyä sinä	ja
partnerisi olette käyttäneet	
viimeisen kuukauden aikana?	

(Tarvittaessa vastaa useampaan kohtaan)

- 0 ei mitään
- 1 kondomi
- 2 ehkäisypilleri
- 3 ehkäisylaastari
- 4 enkäisyrengas
- 5 ehkäisykapseli
- 6 hormonikierukka
- 7 kuparikierukka

## 122. Oletko/ onko partnerisi koskaan käyttänyt jälkiehkäisyä?

0 en

1 kyllä |\_\_|\_| kertaa

2 en tiedä

## 123. Onko sinulle/partnerillesi tehty raskauden keskeytystä?

0 ei

1 kyllä

2 en tiedä

# 124. Onko sinulla ollut ongelmia kondomin käytössä?

(Tarvittaessa vastaa useampaan kohtaan)

0 en ole käyttänyt kondomia

- 1 ei ole ollut ongelmia
- 2 kondomi on luiskahtanut pois päältä
- 3 kondomi on mennyt rikki
- 4 jokin muu ongelma

## 125. Oletko käyttänyt erektiota parantavia lääkkeitä?

0 en koskaan

- 1 1-5 kertaa
- 2 käytän silloin tällöin
- 3 käytän jatkuvasti

# 126. Jos olet käyttänyt erektiota parantavia lääkkeitä, mistä olet saanut lääkkeet?

1 reseptillä

2 internetin kautta tilaamalla

3 kaverilta

#### 127. Mikä on käsityksesi?

Minkä ikäisenä naisen mahdollisuus tulla raskaaksi <u>alkaa hiukan vähentyä</u> ? noin   _      vuotiaana	
2. Minkä ikäisenä naisen mahdollisuus tulla raskaaksi <u>huomattavasti vähenee</u> ? noin   _  vuotiaana	
<ol> <li>Jos miehellä ja naisella on säännöllisiä sukupuoliyhdyntöjä ilman ehkäisyä vuoden ajan, kuinka suuri osa naisista tulee raskaaksi?</li> </ol>	
25-30 vuoden iässä noin%	
35-40 vuoden iässä noin%	

Muutama kysymys AKNEsta nyt ja aikaisemmin ... Ellei sinulla ole koskaan ollut akneongelmaa, siirry suoraan kysymykseen 132.

## 128. Onko Sinulla esiintynyt aknea viimeksi kuluneen 12 kk:n aikana?

0 ei 1 kyllä

# 129. Oletko ollut aknen vuoksi lääkärin vastaanotolla viimeksi kuluneen 12 kk:n aikana?

0 en 1 kyllä

# 130. Oletko kokenut aknen aiheuttaneen tai aiheuttavan sosiaalista haittaa?

0 en lainkaan 1 jossain määrin 2 hyvin paljon

#### 131. Oletko käyttänyt seuraavia hoitoja akneen?

(Tarvittaessa voit ympyröidä useitakin vaihtoehtoja molemmissa sarakkeissa.)

Olen käyttänyt		n 12 kk aikana, miten uukautta yhteensä	aikaisempina vuosina
Antiobioottikuureja (esim. <b>Apocyclin</b> , <b>Tetralysal</b> tabl/kaps)	1	_  kk	2
Isotretinoiini kapseleita ( <b>Roaccutane</b> , <b>Isotretinoin</b> )	1	kk	2
Tretinoin- tai adapaleenivoiteita ( <b>Avitcid</b> crem, <b>Differin</b> gel)	1	kk	2
Atselaiinihappovoidetta ( <b>Skinoren</b> crem)	1	kk	2
Bentsoyyliperoksidivoidetta/ pesugeeliä (Basiron, Brevoxyl)	1	kk	2
Klindamysiiniliuosta ( <b>Dalacin liuos</b> )	1	kk	2
Bentsoyyliperoksidi + Klindamysiinigeeliä ( <b>Clindoxyl gel</b> )	1	kk	2
Valohoitoja (solarium, SUP-valohoito)	1	kk	2
Ehkäisypillereitä	1	kk	2
Itsehoitotuotteita (ei-reseptivalmisteet)	1	_  kk	2
MATKAILU			

0 en, jos vastasit ei, kysymykset päättyvät osaltasi tähän.1 kyllä jos vastasit kyllä, vielä muutama tarkentava kysymys:

#### 133. Matkakohde

(Tarvittaessa vastaa useampaan kohtaan)

1 Eurooppa 4 Pohjois-Amerikka

2 Aasia 5 Etelä-Amerikka

3 Afrikka 6 Australia

#### 134. Matkan tarkoitus?

(Tarvittaessa vastaa useampaan kohtaan)

- 1 loma
- 2 vapaaehtoistyö
- 3 opiskelu

# 135. Otitko ennen matkaa suositellut rokotukset ja ennaltaehkäisevät lääkitykset?

- 0 en
- 1 kyllä
- 2 otin vain osan suositelluista

# 136. Oliko sinulla matkavakuutus?

0 ei 1 kyllä

heti matkan jälkeen?		oireita sinulla oli?		
0 ei	1 kyllä	1 ripulia		
		2 kuumet	ta	
		3 iho-oire		
		4 hengitys	stieoireita	
		5 muuta,	mitä ?	
139. Joud	uitko matkan aikana ryöstön,			
tapaturma	n tai pahoinpitelyn kohteeksi?	140. Käv lääkäris	vitkö kohdemassa sä?	
0 en	1 kyllä			
	•	0 en	1 kyllä	
141. Toive	ita terveydenhuollolle matkailuneu	vonnan kehit	tämiseksi?	

### KIITÄMME KYSELYYN VASTAAMISESTA!

" Risut ja ruusut" opiskelijoiden terveydenhuollolle:

Osoitetiedot: YTHS:n opiskelijarekisteri ja ammattikorkeakoulut

Appendix 2

# Student Health Survey 2008: a national survey among Finnish university students

1. Age years			
2. Gender			
1 male 2 female			
3. Study place			
1 Espoo 6 Kajaani 11 La 2 Helsinki 7 Kemi 12 La 3 Hämeenlinna 8 Kokkola 13 Mi 4 Joensuu 9 Kouvola 14 Ou 5 Jyväskylä 10 Kuopio 15 Po	ppeenranta 17 Rovanie kkeli 18 Savonli ılu 19 Seinäjo	emi nna ki	21 Tornio 22 Turku 23 Vaasa 24 Vantaa 25 Other, what?
more than one study place (tick the box)			
PHYSICAL ACTIVITY			
43. How often do you engage leisure-timephysical activity for least half an hour so that you and get at least some sort shortness of breath? (e.g. joggi gymnastics, swimming, ball games)  0 never or very seldom 1 1-3 times a month 2 about once a week 3 2-3 timese a week 4 4-6 times a week 5 daily	or at sweat ing, cycling,	in some lig for at least time or in o some othe (e.g. walking dancing, wal chores)  0 maximum 1 1-2 times 2 3-4 times	, hiking in the nature, king a dog, everyday n 3 times a week s a week
44. If you engage in above me activities, how many hours a w			
Total for one week about	hours		
45. How many minutes a day of walk or cycle as commuting positivity? (e.g. trips to and from the hobbies, work, etc)?  0 less than 15 minutes a day 1 15-30 minutes a day 2 30-60 minutes a day 3 over an hour a day	hysical institution,	week about  _	hours

SUBSISTENCE AND W	ORK				
.92. How well was the mo	ney available for you ade	quate ove	er the pa	ast year	
			. (12 m	onths)?	
·	ry meager and uncertain		10		
93. Assess your econom	ic situation over the pas	No	Yes	I cannot sa	ıy
I had to go to work to ensu	re my subsistence	0	1	2	
I got economic support from in the form of money, good		0	1	2	
My accomondation costs to money available for me	ook more than half of the	0	1	2	
if not at all)	mployment over the pas	t year (1		hs)? (Mark Was your jo ted to your s	b
Full-time job (30 hours or more in a week)	total of   _  months, with   _  months during	g the term	S	yes	no
Regular part-day or part-time job (under 30 hours a week)	approximately   _  hou a week for a total of   _  mont with   _  months during	hs,		yes	no

#### **HUMAN RELATIONS**

Quick jobs during the

(shorter than one month

periods, irregularly)

acedemic term

98. How many children do you have? |\_\_\_| children

0 not at all

2 often

1 occasionally

yes

no