SUMMARY

Study programme: Master in Public Health
Lifestyle, Physical and Mental Wellness of International Students of the Lithuanian University of Health Sciences
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Aim of the study: To evaluate lifestyle, workload, and wellbeing of international students of Lithuanian University of Health Sciences (LUHS).

Objectives: 1) To evaluate lifestyle, wellbeing, and psychological health of international students. 2) To assess the amount of work assigned and quality of leisure time of respondents. 3) To evaluate associations between lifestyle, workload, and psychological wellbeing of international students of LUHS.

Methods: Data for the study were collected through a cross-sectional survey of students from 1st, 3rd, 5th, and 6th year of studies in LUHS and the target group was international students from Faculties of Medicine and Odontology. The anonymous questionnaires were distributed during the lectures and lifestyle, physical and psychological wellness was measured with questions concerning international student’s living habits, studies, mental and physical health, health related risky behavior, living conditions. Analysis of the data was performed on 240 questionnaires (response rate – 87.9%). All statistical analyses were performed in SPSS version 20.0 and MS Excel 2007 was applied for visual presentation of the results. Prevalence estimates were presented as percentages, chi-squared test was used to determine differences in the prevalence. ANOVA was performed to assess significant differences. A p-value of 0.05 was used to determine significance.

Results: Student’s views regarding time they get for their assignments of studies differ: half (50.8%) of them state that they do not get enough time, and 41.2% of respondents think that they have enough time. More than half of the respondents informed that they are good at organizing their time, they always find solutions to their serious problems, and they have trust on their decisions. Students eat 1-7 times a day, the greatest part (39.4%) – three times a day, most often they cook themselves, but sometimes prefer to eat already prepared food. Most (74.2%) of the
students were physically active. Significant differences was found in physical activity for male and female, males were more physically active (78.9%) than females (68.4%). Students from third to six year were more involved in physical activity in comparison with first and second year students. Distribution of students by relaxation activities for their body and mind: frequently used 47.5%; use but not always 14.3% and 38.2% do not use. Half (51.9%) of students visited a General practitioner/Odontologist or other specialist 1-2 times in last 6 months and 36.6% never visited. Most (92.8%) of the respondents never visited Psychologist/Mental Health specialist in last 6 months.

**Conclusions:** 1) Though usually international students cook their food, but eating regimen of one third of them is problematic. Most of international students are involved in some physical activity. Most students’ sleep time is not enough. More than half students mostly females than males think their current health status is good. Psychological health problems are quite rare among respondents. 2) Half of student’s do not get enough time for their assignments; one third stated that they have not enough time for their leisure activities. But most of respondents are happy with their life, friends, and leisure time. 3) Significant differences were found among students, who stated that they have enough time for studies and quality of sleep of respondents, sleep hours per night on weekdays and weekends, satisfaction with support of teachers, daring to ask someone’s help if needed. Significant differences were found in students who consume beer once a week and not always enough time for studies and assignments Significant differences were found among students, who stated that they are involved in any type of physical activity and self satisfaction.

**Key words:** students, physical and psychological wellbeing.
LIST OF ABBREVIATIONS

PA – physical activity
PWB – psychological wellbeing
WHO – World Health Organization
HRQL – health related quality of life
SPSS – Statistical Package for Social Sciences
US – United States
TERMS

**Wellness** is much more than merely physical health, exercise or nutrition. It is the full integration of states of physical, mental, and spiritual well-being [1].

**Physical activity** is any bodily movements produced by skeletal muscles that require energy expenditure [2].

**Leisure** is an intrinsically motivating and self endorsed activity in freer context in a person’s life by pursuing enjoyment, self-expression, and meaningful engagement [3].

**Psychological well-being** is happiness, life satisfaction, and self-growth, represents one of the most important aspects of efficient psychological functioning [4, 5].

**Coping** refers to a kind of behavioral or cognitive response or strategy to prevent or alleviate stress (3).

**Eudaimonic wellbeing** is used in terms of the degree to which a person is fully functioning [6].

**Hedonic wellbeing** is used in terms of pleasure attainment, happiness and pain avoidance [6].
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INTRODUCTION

According to Greg Anderson Wellness is not a “medical fix” but a way of living – a lifestyle sensitive and responsive to all the dimensions of body, mind, and spirit, an approach to life we each design to achieve our highest potential for well-being now and forever [7]. Education provides individuals with the tools and knowledge they need to understand and participate in today’s highly competitive world. Pursuing studies at an institution of higher learning is now a major undertaking for many young university students [8]. Students represent the future of families, communities, and countries. They also face the stresses of achieving success in their academic goals, and are expected to be competitive, adding to the demands and burdens and thus possibly leading to more stress [9].

Studies in University is a period of responsibility for choices and lifestyle practices, when students are exposed to the challenges of young adulthood and also tackle the mental and social issues of students’ life. Many students confront changes in living conditions, and (health promoting/damaging) adjustments to lifestyle and environment. This period is very important because lifestyle characterized by unhealthy practices or ‘habits’ could persist into middle/old age to inflict health hazards later in life. Students also deal with issues around financial constraints and financial support, social interaction and loneliness. Many university students live far from home, escalating their susceptibility to initiating smoking and/or excessive alcohol consumption [9]. Indeed studies have suggested that university students’ physical and psychological/mental health and wellbeing are important and comprise a wide range of aspects. Some research showed that university students reported more health complaints than their working peers, but did not appear to seek help for these problems. Moreover, the majority of students have a high level of social support. Certainly, social support has been viewed as a potential buffer against harmful effects of psychological stress and has therefore the potential of being a resource for health in this population group [10]. In particular, university students are vulnerable to suffering from mental health problems due to their concerns regarding studies and their transition toward independence in emerging adulthood. However, there has been found a lack of stress coping skills among university students and many students tend to use ineffective stress coping methods. Additionally, they are not aware about benefits of exercise for mental health that exercise is conducive to enhancing positive emotions such as vigor, pleasure, and
energy as well as decreasing anxiety, tension, tiredness and anger [3]. Or maybe they do not get sufficient time for their physical or leisure time activities due to their study burden. In light of these facts that students face a myriad of stressors and challenges in the academic environment, this research attempts to disentangle the factors affecting the scholastic achievement, physical and psychological well-being among International University Students [8]. The information provided by students could be used for better understanding of problems foreign students meet with and this will suggest better solutions of these problems. The novelty of this study is that in this study all aspect related health are included such as psychological, social support what is essential to mental health, risky behavior. Also students’ satisfaction related to university and accommodation is assessed. Moreover, it is an interesting theme for university staff and students as well as for me to find out information on health and lifestyle related items of International students and this information could be valuable for future studies and in order to promote healthy habits of students and to satisfy their needs to promote mental health.
AIMS AND OBJECTIVES

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OBJECTIVES:
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1. LITERATURE REVIEW

1.1. CONCEPT OF WELLNESS

Wellness is much more than merely physical health, exercise or nutrition. It is the full integration of states of physical, mental, and spiritual well-being. The model used by our campus includes social, emotional, spiritual, environmental, occupational, intellectual and physical wellness. Each of these seven dimensions act and interact in a way that contributes to our own quality of life [1].

Social Wellness is the ability to relate to and connect with other people in our world. Our ability to establish and maintain positive relationships with family, friends and co-workers contributes to our Social Wellness [1].

Emotional Wellness is the ability to understand ourselves and cope with the challenges life can bring. The ability to acknowledge and share feelings of anger, fear, sadness or stress; hope, love, joy and happiness in a productive manner contributes to our Emotional Wellness [1].

Spiritual Wellness is the ability to establish peace and harmony in our lives. The ability to develop congruency between values and actions and to realize a common purpose that binds creation together contributes to our Spiritual Wellness [1].

Environmental Wellness is the ability to recognize our own responsibility for the quality of the air, the water and the land that surrounds us. The ability to make a positive impact on the quality of our environment is it our homes, our communities or our planet contributes to our Environmental Wellness [1].

Occupational Wellness is the ability to get personal fulfillment from our jobs or our chosen career fields while still maintaining balance in our lives. Our desire to contribute in our careers to make a positive impact on the organizations we work in and to society as a whole leads to Occupational Wellness [1].

Intellectual Wellness is the ability to open our minds to new ideas and experiences that can be applied to personal decisions, group interaction and community betterment. The desire to learn new concepts, improve skills and seek challenges in pursuit of lifelong learning contributes to our Intellectual Wellness [1].
**Physical Wellness** is the ability to maintain a healthy quality of life that allows us to get through our daily activities without undue fatigue or physical stress. The ability to recognize that our behaviors have a significant impact on our wellness and adopting healthful habits (routine checkups, a balanced diet, exercise, etc.) while avoiding destructive habits (tobacco, drugs, alcohol, etc.) will lead to optimal Physical Wellness, according to University of California [1].

**Wellbeing**
On the other hand, Gro Jordalen described well-being in a simplistic view as a subjective experience of affect positively, and in a wider description it is an organismic function in which the person displays vitality, psychological flexibility, and a deep inner sense of wellness. Well-being is fundamental in the World Health Organization’s definition of health, and is contained in its constitution: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” [6].

**1.1 Eudaimonic and hedonic approaches to wellbeing**

The eudaimonic approach has focused on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning while the hedonic approach to well-being has focused on happiness and defines well-being in terms of pleasure attainment, happiness and pain avoidance. Hedonism is defined as “what makes experiences and life pleasant and unpleasant”. The eudaimonic view of well-being emphasizes that “true happiness is found in the expression of virtue – that is, in doing what is worth doing” In sum, the hedonic viewpoint focuses on subjective well-being (more positive effect, less negative affect and greater life satisfaction), and the eudaimonic viewpoint focuses on psychological well-being, defined in terms of the fully functioning person. The distinction between these positions could in brief be described as “eudaimonic philosophies espouse balance, harmony, and temperance, whereas hedonic philosophies typically espouse intensity, quantity, and extremity”, according to Jordalen Gro, 2012 [6].

**1.1.2 Personality and wellbeing**

Personality is regarded as one of the strongest predictors of well-being. Emotional stability and extraversion are typically associated with happiness, well-being, and positive affect, and
neuroticism is associated with distress, poor well-being, and negative affect. The majority of studies examined the relationship between extraversion, neuroticism, and conscientiousness and stress in medical students and found that those high on extraversion and low on neuroticism and conscientiousness were more protected against stress [11]. Main idea is that more positive and active you are towards your health, studies, and work then you will be more capable to manage your worries, emotions and anxious moments.

1.1.3 Academic stress and wellbeing

Stress associated with the academic learning environment has been linked to depression, poor health, and poor academic performance. A heavy workload, examinations, and clinical performance were found to be the most significant causes of stress among medical students. Some studies reported that medical students worry about their examinations, falling behind in their learning, and receiving lower than expected marks. Furthermore, peer competition, mastering the vast amount of knowledge, and the long hours of study were also reasons of anxiety [11].

1.1.4 Gender and wellbeing

Studies investigating gender differences, in the mental health of medical students have produced different results. Some researchers think that psychological distress is higher among female medical students, while others have found no gender differences. The vast majority of studies have focused on symptoms of anxiety and depression in male and female medical students, according to Mary E. Rogers, 2009, [11]. By concluding this chapter, I can say that every author have similar views regarding wellbeing, some gives more importance to all aspects of wellness and some focus on particular like hedonic and eudaimonic approach, this is also agreeable fact that if your thoughts and mood will be positive you will definitely do valuable tasks which provide you more satisfaction and pleasure and automatically you will do efforts to improve and maintain other aspects of your wellness in good condition.

Quality of Life

The term quality of life was defined as an inclusion of wellbeing and functioning in one’s health state. The functioning was characterized by the capability to carry out the daily living, cognitions and physical ability. While the wellbeing was integrated by healthy bodily and emotional states,
self-concept and global perception linked with the life satisfaction. Pavot (1993) has defined quality of life as a personal satisfaction with one’s life, incorporated with conscious cognitive process. Medical research has reinstated the term quality of life by health related quality of life (HRQL) and integrated several categories: physical functioning, emotional well-being, social functioning, and role activities, as well as health perceptions and global assessment of life satisfaction. There is also an evidence of association of mental health and physical activity with the quality of life [34].

1.2. PHYSICAL ACTIVITY

During the last three decades physical activity has risen to prominence as both a public matter and of research interest [5]. According to WHO Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. Physical inactivity has been identified as the fourth leading risk factor for global mortality [2]. Forms of physical activity could be walking, everyday journeys, active play, work related activity, active recreation or competitive sport, all these concepts involve energy expenditure and benefit the individual both psychologically and physiologically. The purpose of this research project is to find importance of physical health and mental health of students, such as how exactly does being physically active effect health functioning in an individual’s mind, or being physically inactive and the consequences it has on an individual. Sedentary lifestyles have become a problematic health issue of great concern in recent years. Research has even indicated that sedentary living behaviour was associated with poorer mental health scores. So it is valuable to address the psychological effects of physical activity not only to reduce sedentary behavior, but also due to rising number of psychological issues among students. On the opposite side, the presence of mental illnesses such as depression, anxiety, personality disorders coupled with the ever increasing problem of obesity and other eating disorders, however it’s been proven that with regular physical activity these problems are reduced (according to McGurik Ethan, 2012 [5]).

1.2.1 Health effects of physical activity

Beneficial health effects of PA include improved cardio respiratory, muscular fitness, bone health, body composition and cardiovascular and metabolic health biomarkers and so
maintaining physical fitness are widely established (12,5). Moreover, PA also aid to improve depression, aggression and mood. Previous research confirms that PA is beneficial in reducing levels of crime and anti social behavior; it increases healthy behaviors and gives an individual a chance to socialize and meet new people. Different studies of PA indicate that PA is influenced by multidimensional aspects including biological, social, behavioral, psychological, and environmental factors. Moreover, males are more active than females, and these differences extant into adulthood. Conflicting results emerge from studies on the association between socioeconomic conditions and level of PA in young people. There is also disagreement regarding sedentary habits, like watching TV, and their relationship to PA levels. On the contrary, findings from socio ecological studies have shown a positive relationship between environmental factors, such as family or school support, and PA (according to Ortlieb Sandra, 2013, [13]). However, a large cross-sectional study of health behaviors of students in forty US colleges and universities found that more than half of the students (58%) did not meet public health recommendations for moderate-vigorous physical activity [14]. An example: walking is one of the best forms of physical activity – it is low impact (so does not put stress on the joints), weight-bearing (so it can improve bone density) and a 60 kg individual walking briskly will burn about 300kcal per hour, so it can assist with weight loss. Additional benefits include stress reduction and improved sleep. And the long-term health benefits of walking are startling. A large study of nurses found that regular walking halved the risk of developing type II diabetes – this is a similar level of protection to that found from undertaking the equivalent energy expenditure on a vigorous activity [15].

Ways to increase physical activity: leisure time activities are activities done in periods of time outside of work and essential domestic activities. The strategy is to encourage sport participation or different social groups which engage in physical activity (e.g. walking groups, cycling groups, dancing or community gardening). Active transport refers to walking or biking as means of transportation and not purely as a form of recreation. Encouraging walking or biking to work or school and college, or going about daily activities such as shopping are great ways to maintaining an active lifestyle. Active living is a way of life in which exercise is fully integrated into daily activities. The goal is to accumulate 30 minutes of physical activity a day in 10-minute stints. This can be done in various ways: through leisure-time activity, active transport, household chores, taking the stairs, walking a dog, etc.
1.2.2 WHO recommendations for PA

For adults aged 18–64 should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week. Aerobic activity should be performed in bouts of at least 10 minutes duration. For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate and vigorous intensity activity. Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week [16].

1.2.3 Impact of physical activity on academic achievements of students

Studies, which explored the relationship between either physical activity or fitness and academic achievement retrospectively or prospectively, have found that physical activity was a significant, positive predictor of academic achievement. Body mass index, diet and physical activity explained up to 24% of the variance in academic achievements after controlling for gender, parental education, family structure and absenteeism. Additionally, students who reported a greater level of exercise spent more time in sport and achieved higher grade point averages. It improves student’s concentration and attention, cognitive control (Karen Martin, 2010, [17]).

FIGURE No.1. Impact of physical activity to cognitive functioning and behaviour (Karen Martin, 2010, [6])

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<tr>
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<tr>
<td>Brain nerve growth_____________</td>
<td>Planning</td>
</tr>
<tr>
<td>Brain blood vessel growth_____________</td>
<td>Concentration</td>
</tr>
<tr>
<td>And blood flow_____________</td>
<td>Attention/on task behaviour</td>
</tr>
<tr>
<td>Reaction time_______________________</td>
<td>Classroom behaviour</td>
</tr>
<tr>
<td>Test scores_______A+</td>
<td></td>
</tr>
<tr>
<td>Academic success</td>
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In a nutshell, physical activity have major impact on body health as well as on mental health, involvement in physical activity not only improve our health but also improve our cognition and intellectual ability of decision making, additionally, it also enhances students performance academically by providing relaxation to mind and energy to work more efficiently and actively to achieve their desired goals.

1.3. LEISURE ACTIVITIES

1.3.1 Leisure and role

This is a broader context than physical exercises and is defined as an intrinsically motivating and self endorsed activity in freer context in a person’s life by pursuing enjoyment, self-expression, and meaningful engagement. Active leisure is characterized by requiring some degree of physical exertion while passive leisure is associated with restful, recuperative, and quiet activity such as watching television, and listening to music. Social leisure which is neither active nor passive indicates leisure activity involving social interaction such as attending parties or clubs. Leisure renders people an opportunity to experience flow which is referred to as a totally absorbed feeling, unaware of passage of time during engaging in leisure due to skill development, matching with challenge. Also, leisure contributes to building autonomy, social relationships, and optimism which enhances stress coping resources and personal well-being in the context of Self-Determination Theory in which intrinsic motivation leads to psychological well-being by enhancing competence, relatedness, and autonomy. In addition, leisure eliciting positively-toned emotion contributes to not only breathers from stress but also involvement in pleasurable activity, which functions as an effective coping method in taxing situations. This positively-toned emotion, elicited from leisure, can restore hope or self-esteem, which buffer the deleterious impacts of stress (according to Walid El. Ansari, 2013, [10]) Furthermore, positively-toned emotion leads to cognitive reappraisal in the face of stress (by Jong Ho Kim, 2014, [3]).
1.3.2 Serious and casual leisure

Conceptual model of leisure activity distinguishes two kinds of leisure time. Serious leisure includes activities (e.g., amateur sports participation) characterized by long-term commitments to developing skills through overcoming challenges (e.g., learning difficult skills). For example, volunteering is considered a serious leisure activity, because it is a sustained activity with a focused goal and often requires a commitment to learning new skills. Individuals derive deep satisfaction from involvement in serious leisure activities. In contrast, casual leisure activities require little skill and are considered pleasurable (e.g., watching television, “hanging out” with friends). For instance, hanging out with friends is considered casual leisure because little time commitment or skill is involved. Hallmarks of both serious and casual leisure are that the activities are intrinsically rewarding and enjoyable and offer an escape from or an alternative to nonleisure activities such as work or work like activities (e.g., school). Alcohol use, with its focus on sociability, pleasure, and low skill or commitment, represents casual leisure and may overlap (conceptually or in time) with other casual leisure activities.

1.3.3 Student’s involvement in activities

Students are involved in a variety of activities on any given day, including nonleisure activities, such as school and work, and leisure activities, such as socializing and playing sports. Academic obligations account for a substantial portion of students’ time: Three-quarters of students attend class for 11 or more hours per week, although 70% skip class occasionally or frequently. Leisure activities account for more than 40 hours per week of students’ time outside of class, studying, and paid work (By Finlay, 2012). Measured on a daily level, national data indicate that, on the average weekday, full-time college students spend 3.9 hours in leisure and sports activities, 3.2 hours in educational activities, and 3.0 hours working for pay (U.S. Bureau of Labor Statistics, 2007). In a nutshell, leisure activities are also important part of our life, these can be active or passive, which provide rest and relaxation to our mind for some time and we again ready with fresh mood for further activities of daily life.

But more time spend on leisure activities also have detrimental effects to health, thinking, education and economic status also get impaired. So we should keep balance of everything as
we already know that, excess of everything is bad, the source for that could be any, to which we can control.

1.4. SLEEP QUALITY AND IMPACT ON HEALTH

Sleep is an important physiological need for humans. The quality of sleep is a measure of both the quantitative and qualitative components of sleep. The quantitative component includes the duration of sleep while the qualitative component is a subjective measure of the depth and feeling of restfulness upon awakening. Reductions in sleep duration and sleep quality, across populations, has been linked to changes in lifestyle, increasing use of technology and increased work and social demands. Moreover, sleep quality and duration are generally known to vary by sex and age. Some studies show, female students have been identified as having a higher risk of poor sleep quality. However, some studies suggest that female students have longer mean sleep duration. Increased age is also associated with indices of poor sleep quality. Psychological correlates such as stress, anxiety and depressive symptoms are commonly reported phenomena among university students. The sources of such psychiatric morbidities are reported to be academic workload and psychosocial concerns. Evidence from studies has also documented associations of different sleep indices with symptoms of depression, stress and anxiety among university students [18].

Previous research found that academic performance and sleep patterns tend to suggest that grade averages are higher among students meeting guidelines for good sleep habits. However, a large cross-sectional study of health behaviors of students in forty US colleges and universities found that only a quarter of students (24%) actually met public sleep recommendations. In addition, some studies examine the relationship between performance and sleep duration, a negative relationship between self-reported number of hours slept and students’ grades. However, other studies have found a quadratic relationship between performance and total sleep duration, for instance, too little or too much sleep is associated with poorer performance. Other research studies have found that wake-up and bed times are important for performance, such that later bed and wake-up times are associated with poorer performance. In addition, variability in sleep behaviors (e.g., bed times, wake times, total sleep duration) has been linked to performance, such that greater variability it associated with poorer performance [14].
The National Sleep Foundation Sleep Duration Recommendations will help individuals make sleep schedules that are within a healthy range. They also serve as a useful starting point for individuals to discuss their sleep with their health care providers [19].

<table>
<thead>
<tr>
<th>Age</th>
<th>Recommended</th>
<th>May be appropriate</th>
<th>Not recommended</th>
</tr>
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<tbody>
<tr>
<td><strong>Young adults (18-25 years)</strong></td>
<td>7 to 9 hours</td>
<td>6 hours</td>
<td>Less than 6 hours</td>
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<td></td>
<td></td>
<td>10 to 11 hours</td>
<td>More than 11 hours</td>
</tr>
<tr>
<td><strong>Adults (26 - 64 years)</strong></td>
<td>7 to 9 hours</td>
<td>6 hours</td>
<td>Less than 6 hours</td>
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<td></td>
<td></td>
<td>10 hours</td>
<td>More than 10 hours</td>
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<tr>
<td><strong>Older adults ≥ 65 years</strong></td>
<td>7 to 8 hours</td>
<td>5 to 6 hours</td>
<td>Less than 5 hours</td>
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<td>9 hours</td>
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1.5. PSYCHOLOGICAL WELL-BEING

Psychological well-being (PWB) is broadly defined as happiness, life satisfaction, and self-growth, represents one of the most important aspects of efficient psychological functioning. [21]. And PWB refers to having a positive view of one’s self and one’s life and includes aspects of self-esteem and satisfaction with life. On the other side, there are individual differences that one having relatively low negative emotion, and high positive emotion. It is a significant fact in the life of a human beings, it brings (if positive) happiness, positive self esteem, positive mental health, optimal cognitive performance and motivates the individual to achieve goals throughout life. On the opposite direction, if an individual’s PWB is negative, especially for a prolonged period of time, a person can develop mental illnesses or disorders such as anxiety or depression, suicidal ideas, which can further develop into physiological problems and cause upset for the individual both internally and externally. PWB is composed of 6 key elements which are self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth, additionally, mood, well being,
quality of life, general health, and competence and vitality. These mentioned dimensions represent variations of well-being based on different life experiences.

1.5.1 Benefits of psychological wellbeing

Current literature confirms that different aspects of positive psychological well being affect an individual’s health in an underlying way. For example optimism is associated with reduced cardiovascular mortality and reduces incident risk of coronary heart disease. Positive PWB has also been shown to influence the cardiovascular response to stress. For instance, in one study volunteers were exposed to a stressful task which was followed by a mood induction procedure. Participants in a positive mood state showed a more rapid cardiovascular recovery from stress than those in a negative or neutral mood state [5]. Furthermore, a study displays association between stress and personal behaviors. More stressed students (less time for health care and exercise, more negative thoughts, more health problems as mind and body have a relation and interconnected) and low self esteem and less aware about their health. On the other hand, correlation between stress and time management was established: and increased management skills such as division of time according to requirement of task and activity, well planned schedule and good implement of that schedule is key to decreased stress level in students (according to Britz Jacqueline, 2007, [22]). Indeed, much research reveals that happy people experience a number of benefits ranging from physical health to better relationships to high-level performance (by Robert J Vallarand, 2012, 21])

1.5.2 Coping styles for PWB

Coping refers to a kind of behavioral or cognitive response or strategy to prevent or alleviate stress. There are mainly two types of coping strategies: problem-focused coping and emotion-focused coping. Problem focused coping refers to a way of coping through which people actively seek information or help to tackle a problem directly or diminish its impact, whereas emotion-focused coping refers to involvement in expressing emotion and altering expectation. Problem-focused coping includes seeking counselors to get some advice to fix a problem, while emotion-focused coping includes blaming, venting, denying, avoiding, or just chatting with friends to express feelings. Emotion-focused coping, particularly characterized as
avoidant types of coping, is highly associated with greater psychological dysfunction. However, effective emotion focused coping can lead to better problem focused coping through elicitation of positive emotion with a cleared and calm mindset. This is consistent with the notion that positively-toned emotion by engaging in leisure contributes to cognitive reappraisal which helps to deal effectively with stress (according to Ho Kim Jong, 2014, [3]). In conclusion, PWB is an important component of every individual health, but students face more stress during their study due to assignments and other workload. These psychological problems can be managed if we use appropriate management skills and some physical exercises and plan our work ahead to overcome obstacles in future. Need to be sound mind and sound body.

1.6. ACADEMIC PERFORMANCE OF STUDENTS AND RELATED FACTORS

When students join university for higher education with the dreams of their bright future they find themselves in a new, challenging and competitive environment; most of them are experiencing independence and responsibility for the first time in their lives. During university time they consequently adopt new health behaviors and there may be a risk that they continue with unhealthy lifestyle choices that were established during their university years, which makes them a risk group not only during these years but for the rest of their lives [23]. University life is an important stage for individuals as at this time their behaviors are conducive to change. University and college arenas, therefore, represent an important opportunity for health and nutritional education (by Rubina A. Sajwani, 2009, [24]).
In the modern and progressive world students are subjected to different stressors for instance, the pressure of academics with the obligation to success, an uncertain future and difficulties of integrating into the labor system. The students also confront with the social, emotions, physical and family problems which may affect their learning ability and academic performance (according to Dinh Do Quyen, 2007, [26]). The most common sources of stress were interpersonal as finding new friends, change in sleeping habits were significant stressors in first year students than students of other years. The other stressor is increased classroom workload, environmental stressors such as being placed in unfamiliar situations, and change living environment. (Figure: 3 proposed model of causes and consequences of student’s distress, following). To overcome these problems they also use certain stress management skills. The most commonly used coping styles going along with parent, praying, making one’s own decisions, apologizing, helping other people to solve their problems, keeping friendships and daydreaming etc [26].

FIGURE 2. Model of reciprocal relationship between health, health behavior and educational achievement by (Walid El Ansari, 2010, [25])
1.6.1 Academic barriers

Perceived environmental barriers for instance supportive surrounding are likely to have a negative effect on setting and pursuing goals, and limit a person from achieving his/her potential. Consequently, perceived barriers hold down academic activity and impair an individual’s capacity to make optimal academic and career decisions. On the contrary, if certain favorable conditions, such as a reinforcing environment, are assumed to increase the likelihood of enacting goals [11]. Previous research shows that student approaches to learning and their learning outcomes are influenced by the teaching-learning environment involving a number of interrelated components for instance the teaching method and assessment, course structure, curriculum, workload, and teacher effectiveness. By concluding this, students when come to completely different settings they face environmental barriers, teaching and learning difficulties, communication problems and more crucial barrier is different organizational system.

1.6.2 Personality and its impact on academic performance

Previous literature examines the links between academic performance and personality tends to adopt the big five personality framework, which consists of five broad traits: extraversion, agreeableness, conscientiousness, neuroticism, and openness. However, some studies also find extraversion and neuroticism to be negatively associated with student’s performance. Some researchers suggest that personality traits may differentially impact academic performance; for example, by impairing performance in the case of neuroticism, or increasing academic achievement in the case of conscientiousness [14]. At the end individual’s positive nature, attitude and personality provide comfort to learn, share and to present their assigned task.

1.6.3 Social interaction and effect on academic performance

Behaviors related to sociability (e.g., duration or frequency of engaging in conversation, partying, and spending time alone or with others) have been difficult to study, which has led to differences in the way sociability is operationalized. For instance, a meta-analysis of predictors of college performance found that social involvement (e.g., social integration, involvement in campus activities) was associated with higher grades among college students. However, night
outings (i.e., social events such as partying, movies, etc.) have been associated with poorer performance. In addition, social support has been linked to higher academic performance among university students [14].

1.6.4 Attendance and its relation with academic performance

In general, college performance and academic-related skills (e.g., study skills and habits) are associated with higher grades among college students. Previous research examines academic behaviors has also found that absenteeism and class attendance predict academic performance, such that students who attend class more often performed better than those who missed class, for example, a meta-analysis of studies that examine the relationship between class attendance and performance found attendance to be strongly related to class grades of college students [14].
PERSONAL FACTORS:
Life events (birth, death in family, etc)
Personality
Coping strategies
Personal responsibilities (married, children, etc)

POTENTIAL PERSONAL CONSEQUENCES:
Broken relationships
Substance abuse
Poor self care (lack of exercise, poor diet, etc)

STUDENT DISTRESS
Stress
Anxiety
Burnout
Depression

FACTORS RELATED TO MEDICAL TRAINING
Workload
Curriculum
Student’s loan debt
System of performance evaluation (grade, pass/failed etc.)

POTENTIAL PROFESSIONAL CONSEQUENCES
Impaired academic performance
Cynicism/decline in empathy
Academic dishonesty
Impaired competency
Influence specialty choice

FIGURE 3. Model of causes and consequences of student’s distress by (Dinh Do Quyen, 2007 [26])
1.6.5 Positive affect (mood, feelings) and impact on study

Relatively few studies have examined the relationship between academic performance and positive affect. Those studies that have focused on affect found that positive affect was associated with higher grades, while negative affect during the second half of the semester was associated with lower grades [14]. Moreover, if an individual believes they are able to attain their goal of working in a particular medical specialty, they might have positive expectations regarding achieving a certain amount of professional success and/or leisure time to pursue personal activities. Thus, expectations serve as a source of satisfaction, personal fulfillment, and happiness, which are principal elements of well-being [11]. Additionally, teacher and student relationship and supportive teaching abilities to enhance student learning also play a vital role in developing positive attitude toward study in university students rather than giving sarcastic views and comments to students which leads to negativity toward teacher and study. At the end, we can say that students face so many academic barriers in their study period, most of them can be easily managed if students share their views with others and adjust according to new environment and with positive attitude toward every aspect and they can successfully achieve their academic goals within time period.

1.7. DIETRY HABITS

Dietary habits are a major aspect of students’ lifestyles that influence health and morbidity. Hence, patterns of food consumption and their relation to mental health have received some attention in research. Indeed, studies on the effects of stress on food choice show that people experiencing periods of stress reported overeating foods they would normally avoid, and that they ate these foods to feel better. Whilst eating has been theorized as a coping strategy for stressful situations, less is known about the association of stress or depression with the frequency of consumption of various food groups among students. Additionally, given that 65% of United Arab Emirates university students reported that their stress levels were too high and 50% reported that their diet was unhealthy, the importance of understanding students' patterns of consumption of food groups becomes evident [27]. On the other side, a study on Chinese university students showing that only a small number of students (7%) apply the concept of healthy dietary intake when selecting food. However, a half (51%) showed a desire to learn about healthy diet. A similar study on Swedish university students showed that females had
healthier habits despite being more prone to stress. Male students on the other hand had high level of obesity and were less interested in nutritional advice, and health enhancing activities. Moreover, they were also physically inactive and indulged in alcohol consumption. University life is also a period during which individuals are for the most part exposed to stress and lack of time, posing a barrier to adoption of healthy practices. In a survey about habits and perceived barriers to following a healthy lifestyle in a college population, the biggest deterrent to exercise and bad unhealthy eating habits was "lack of time" (36%). It is assumed that the medical students have a greater knowledge about healthy lifestyle and dietary habits when compared to nonmedical students. Healthy dietary habits among medical students are even more important as they are future physicians and the students who personally ignore adopting healthy lifestyle are more likely to fail to establish health promotion opportunities for their patients. Various studies have been focused on assessment of knowledge and practices regarding nutrition, exercise, sleeping habits, smoking and alcohol among medical students. In a Japanese study, almost half of the dental students missed one of the three main meals. Studies also report lack of appropriate physical activity and prevalence of unhealthy habits like smoking and alcohol consumption among a large proportion of medical students [24].

1.7.1 Food choice and consumption

Numerous internal and external factors can influence people's food choices, including nutritional content, accessibility, value and ethical issues. The food choices made by individuals over a period of time lead to the development of food consumption behavior and habits. Nevertheless, inappropriate health behavior can often have negative consequences for the individual, such as the development of what are often referred to as lifestyle diseases. An individual's diet can be influenced by many different factors; firstly, the environment in which food is purchased and consumed. Environmental for instance availability and accessibility interrelate with multiple factors such as taste, familiarity, value and health to encourage food choice. Secondly, low income is a factor that can have an impact on a community's food environment. Research demonstrates that individuals under the age of 25 are the least likely to engage in a healthy lifestyle, due to their carefree attitude (Martins Agatha Christie Coelho, 2012, [28]).
1.7.2 General effects of eating on mood

The commonest way in which food can affect behavior is the change in mood and arousal that occurs from before to after eating a meal. This general meal effect is probably the most reliable example of an effect of diet on behavior. Many animals, including human beings, tend to be aroused, alert and even irritable when hungry. This encourages their search for food. After eating a satiating meal, humans and other animals typically become calm, lethargic and may even sleep, and mood is more likely to be positive than negative [29]. Moreover, if we get favorite food item in sufficient amount when hungry and enjoy each bite of food, and by smelling, it provide more satisfaction and improve mood and that food digest easily due to good acid produces in stomach as compare to food which you dislike mostly. In figure 4 positive foodscape model is presented.

FIGURE 4. Positive foodscape model by (Martins Agatha Christie Coelho, 2012, [28])

By putting the pen down, previous researchers describes that students dietary pattern change when they come to new place like university under the influence of friends, food like, availability of food and more importantly due to more work hours, but for healthy body and mind we need to take balanced diet including all essential food elements in order to stay healthy.
1.8. HEALTH-RISK BEHAVIORS AMONG STUDENTS

Risky behaviors adopted by university students have been assessed worldwide. Monitoring such behavior point out their high prevalence reflected on sedentary habits, eating disorders, traffic accidents, consumption of tobacco, alcohol and other drugs, and violence against oneself and others. It is possible that young students entering the university adopt health-risk behaviors in detriment of the commitments related to the dynamics of the academic life, in such a way that their lifestyles are modified. The entrance of the student in the university overlaps periods in which values, beliefs, autonomy and the establishment of limits by parents are questioned (by Yone de Oliveira Faria, 2014, [30]). Young adults represent the right age bracket in which health-promotion activities should be carried out, aiming at facilitating their adoption of health-promoting behaviors and eventually reducing premature mortality at a later stage. Existing research shows a high rate of tobacco, alcohol, and drug consumption among youth. Water pipe smoking, which is perceived as less toxic than cigarettes, is mostly carried out in cases of stress or for mere pleasure. Alcohol consumption, particularly in the case of psychological problems, as well as drugs consumption is also high among university students [31]. As observed in most countries, a decreased influence of family and culture, an earlier occurrence of puberty and late marriages also extend the risk of unprotected sexual activity among young people in Turkey. Likewise, the prevalence of smoking and alcohol and substance use has also increased in this country. It is widely known that risky behaviors tend to co-occur and the prevalence of multiple risky behaviors increases with age. In an effort to identify and address these health behaviors, there has been increased attention paid to the provision of youth-friendly environments and health services. Universities are institutions in which many young people receive training, socialize and access a wide range of services such as accommodation, transport and catering. A university should provide an environment in which students positively develop both personally and socially during this significant time in their lives. This development has profound effects not only during the period of higher education, but throughout their lives (according to P.Davoren Martin, 2015, [32]) Smoking is a risk factor for many diseases and the major public health problem throughout the world. The rate of smoking behaviors still remains high among adolescents with decrease in the age of onset over the time. This issue is considered to be of
more important among students, as an educated population which can affect all the strata of society. There are many studies on the prevalence of smoking behaviors and the associated risk factors among university students, suggesting that smoking prevalence tends to increase in the universities. Hence, smokers are not under any social pressure to quit smoking. Studies showed an increasing number of smokers among all society members in Iran, namely university students or even school students. Considering that university students as an educated group of the society can play a more effective role in preventing and reducing smoking behaviors in the society (according to Farhad Jafari, 2014, [33]). By concluding this, students learn smoking, alcohol and other risky behaviors only when they get full independence, when no one there to control them in totally new environment and most of the studies shows that they use these habits to prevent stress, nervousness and to relax their mind, which is not a good method to cope stress and tension. On the other hand, these habits taking their precious years of their life as well as health near to bad end.
2. MATERIAL AND METHODS

Study area: The study was conducted in Lithuanian University of Health Sciences, which is located at A. Mickevičiaus street 9, Kaunas 44307. The University is the largest institution of higher education for Biomedical Sciences in Lithuania, successfully integrating studies, research and clinical practice. LSMU consists of two main academies: Medical Academy and Veterinary Academy. The survey was performed in the Academy of Medicine, where most of the foreign students could be met. From the Department of International Studies it was found that in total 304 students are studying in the Academy of Medicine.

Study design: Institution based cross-sectional study was conducted. Cross-sectional studies primarily are used to determine prevalence of different variables. Prevalence equals the number of cases in a population at a given point in time. All the measurements on each person are made at one point in time. Cross-sectional studies are also used to infer causation. At one point in time the subjects are assessed to determine whether they were exposed to the relevant agent and whether they have the outcome of interest. Some of the subjects will not have been exposed nor have the outcome of interest. This clearly distinguishes this type of study from the other observational studies, where reference to either exposure and/or outcome is made. In cross-sectional studies only one group of respondents is used, data are collected only once and multiple outcomes can be studied; populations are commonly selected without regard to exposure or disease status [34].

Source population: Target group was international students from faculties of Medicine and Odontology. The sample involved students from 16 to 42 years in the sample.

Study population: International Students of all study years were sampled from source population.

Organizing the survey

Research protocol: Ethical approval for the study was provided by the University Bioethics Committee after their review of the study design, tool, and other research material. Moreover,
permission to distribute questionnaires among students was also taken from the Dean of International studies Prof. Žilvinas Padaiga.

### Table 2. Distribution of respondents by age

<table>
<thead>
<tr>
<th>Age groups</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20 years old</td>
<td>58</td>
<td>25</td>
</tr>
<tr>
<td>21-24 years old</td>
<td>120</td>
<td>51.7</td>
</tr>
<tr>
<td>25-42 years old</td>
<td>54</td>
<td>23.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>232</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Table 3. Distribution of study population by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>124</td>
<td>51.7</td>
</tr>
<tr>
<td>Female</td>
<td>116</td>
<td>48.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>240</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As tables 2 and 3 show that 240 of students of first, third and final year from Medicine and Odontology Faculties participated in the study, out of which, 124 (51.7%) were males and 116 (48.3%) were females. It was calculated that 79 % of international students of the university from 39 countries participated in the survey.

**Scheduling:** The present study was conducted from June to September 2015. Students were asked to fill the questionnaires after their lectures. A detailed monthly schedule of the survey was prepared, in advance and lecturers or module coordinators were contacted to request for permission to distribute and collect questionnaires on a date and time convenient to them and in this way data was collected. Data collection of each session took approximately 15-20 minutes, before leaving the auditorium students had to return the filled questionnaires.

**Instrumentation and measurement methods:** The questionnaire was used to assess diet, overall psychological well-being, sleep and physical activity, body weight and height. Additionally, this instrument measured multiple factors of psychological well-being including health-worry, satisfying-interesting life, depressed-cheerful mood, emotional-behavioral control,
and relaxed vs. tense-anxious. Data which are used in the analysis was collected as a cross-sectional survey of international student’s on physical and psychological wellbeing.

The questionnaire consisted of nine parts: the first part included questions on demographic characteristics, such as age, gender; second part consisted of study related questions, for example best learning methods and respondent’s improvements during study years. Third part included questions related to lifestyle, physical activity and nutrition related questions and involved eating habits and type of meals consumed, such as frequency of meals, type of meals, vegetables and fruits consumption, etc; next parts included questions on mental and physical health. Moreover, questions related to risky behaviors included issues of alcohol intake and smoking. Additionally, questions regarding student’s accommodation and university related opinions were presented.

Each questionnaire had an information sheet outlining the research task and objectives. The participation was voluntary and anonymous, respondents were free to refuse or answer any of the questions in the questionnaire (no incentives were provided) and students were informed that by completing the questionnaire, they agreed to participate in the survey. The information they provided was totally confidential and protected at all stages of the study and available to the researcher only. Moreover, the information provided by students could be used for better understanding of problems foreign students meet with and this will suggest better solutions of these problems. Results of the survey will be based on the amount of returned questionnaires.

**Implementing the survey**

**Data collection and tools:** The questionnaire was developed after extensive review of literature and employed was compiled and developed from different published sources, and similar study tools used previously for the purpose of the study for instance some questions are taken from studies: Physical and Psychological Well-being of University Students, Survey of Eleven Faculties in Egypt and a research on a UK validation of a general measure of subjective well-being: the Modified BBC Subjective Well-being Scale (BBC-SWB). The anonymous questionnaires were distributed during the lectures when most students could be found in one place. Me – the data collector is master’s degree student who had guided the students to complete the questionnaire and explain each question to the students to help them understand the questions well and fill their own response on questionnaire. Facilitators were academic staffs
who were familiar with the specific university and they facilitated the smooth running of data collection process before and during data collection period. The data was collected using self-administered structured questionnaire which was prepared in English so that most students could understand. In total, 273 questionnaires were distributed and 240 respondents have returned properly filled in forms (response rate 87.9%).

**Mathematical statistical analysis:** Analyzing the data all the students were grouped into two groups: first group – 1 and 2 study year students, and second group – 3-6 study year students. Also students were grouped into three age groups. While analyzing data on nutrition students were classified according to the frequency of meals into three groups: Ist group - students who eat less times than recommended; IInd group - students who eat according to recommended frequency of meals and IIIrd group – who eat more than 5 times per day.

All statistical analyses were performed in SPSS version 20.0 and MS Excel 2007 was applied for visual presentation of the results. Data were analyzed by descriptive statistics with frequency distribution, cross-tab calculation. Prevalence estimates were presented as percentages, chi-squared test was used to determine differences in the prevalence. ANOVA was performed to assess significant differences. And p-value of 0.05 was used to determine significance.
RESULTS AND DISCUSSION

3.1 STUDIES
This work is based on the survey of International students of LUHS. While beginning the studies in the university great changes take place in young people lives, serious time of reorientation, various challenges is experienced.
Studies are the main task of students. Student’s views regarding time they get for their assignments of studies differ and were as following: 50.8% of student’s state that they do not get enough time, 41.2% of respondents agree that they get enough time and 8% students’ state that they get enough time not always.
The distribution of student’s opinion about the best methods of learning is presented in Table 4. We can see that the greatest part of the students learn practically participating and watching demonstrations, and the smallest part – sharing and participating in discussions.

**Table 4. The distribution (%) of student’s by their learning methods**

<table>
<thead>
<tr>
<th>Methods of learning</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning during lectures</td>
<td>15.4</td>
<td>32</td>
</tr>
<tr>
<td>Participating practically</td>
<td>45.2</td>
<td>94</td>
</tr>
<tr>
<td>Watching demonstrations</td>
<td>23.6</td>
<td>49</td>
</tr>
<tr>
<td>Participating in discussions</td>
<td>12.0</td>
<td>25</td>
</tr>
<tr>
<td>Sharing</td>
<td>3.8</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>208</td>
</tr>
</tbody>
</table>

There are various self studying methods one can implement at home (whether they’re self study methods to complete solo or with group) that can bring about many educational benefits both in and out of university [35]. Students mention that they learn through other ways, for instance self study and making notes at home and library is the most popular way of studying, YouTube lessons and videos, various internet web pages (for example, Professor’s Think). So we can state
that though practical training is important, but self study and individual work is the main way to study for most students of Academy of Medicine.

Students were asked about their opinion on academical improvement over the course of the last year of studies. It is found no differences analyzing the opinion of students by gender (Fig. 5).

\[ \chi^2 = 1.720; \text{df}=2; \ p=0.423 \]

**Fig. 5. Distribution of males and females by opinion on their academical improvement over the last year**

But current study results show that University student’s opinion on progress during the last study year differed significantly according to their study year (Fig. 6). Bigger proportion of older course students answered that they have no improvement and lower proportion of the older course students mentioned that they have much improvement over the course of this year of the studies. The reason might be that some first year students were new and curious to learn more as compared to the older year students.
$\chi^2 = 7.001; \text{ df}=2; \text{ p}=0.030$

**Fig. 6. Distribution of younger and older course students by opinion on their academical improvement over the last year**

In conclusion we can say that though practical training is important, but self study and individual work is the main way to study for most students of Academy of Medicine. Less than half of respondents (41.2%) think that they get enough time for their studies and assignments. While evaluating their progress, students of younger courses observe more academical improvement in comparison with students of older courses.

### 3.2 LIFESTYLE

A healthy lifestyle leaves you fit, energetic and at reduced risk for disease based on the choices you make about your daily habits. Good nutrition, daily exercise, involvement in enjoyable activities is central to healthy lifestyle and adequate sleep is the foundation for continuing good health [36, 19].
3.2.1 NUTRITION

According to answers students eat 1-7 times per day. The majority of respondents eat 3 times or more per day. But alarming are the results, that 28.8% of respondents eat two times or only once per day.

For further analysis the students were classified according to the frequency of meals into three groups: 1\textsuperscript{st} group - students who eat less times than recommended; 2\textsuperscript{nd} group - students who eat according to recommended frequency of meals and 3\textsuperscript{rd} group – who eat more than 5 times per day.

The data on the frequency of meals were analyzed according to gender and study year (Table 5). There were no significant differences observed though the proportion of students who eat once or twice per day was bigger in the group of first and second year students.

<table>
<thead>
<tr>
<th>Times of eating meal</th>
<th>Student’s characteristics</th>
<th>Chi squared</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>1-2 times a day</td>
<td>28.3</td>
<td>29.2</td>
<td>0.023</td>
</tr>
<tr>
<td>3-4 times a day</td>
<td>56.6</td>
<td>55.8</td>
<td></td>
</tr>
<tr>
<td>5 times or more</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

There was no significant differences observed though the proportion of students who eat once or twice per day was bigger in the group of first and second year students.

<table>
<thead>
<tr>
<th>Times of eating meal</th>
<th>Student’s characteristics</th>
<th>Chi squared</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 and 2 year of study</td>
<td>3-6 year of study</td>
<td></td>
</tr>
<tr>
<td>1-2 times a day</td>
<td>32.2</td>
<td>26.6</td>
<td>1.762</td>
</tr>
<tr>
<td>3-4 times a day</td>
<td>56.3</td>
<td>56.1</td>
<td></td>
</tr>
<tr>
<td>5 times or more</td>
<td>11.5</td>
<td>17.3</td>
<td></td>
</tr>
</tbody>
</table>

There is a growing recognition that age-related physiological changes may predispose to protein-energy under nutrition and healthy nutrition may contribute significantly to the health and well being of individuals, and to their ability to recover from illness [37].

The data indicates that the highest proportion was of those students who eat breakfast everyday (44.8%) but one third of respondents (32.8%) were having breakfast seldom or never. Analyzing the data by gender or study year there were no significant differences. But tendencies were such that greater proportion of males (36.4%) skipped their breakfast in comparison with females.
(28.9%). And more students of older courses (35%) skipped their breakfast in comparison with younger course students (29.2%).

Students were asked to indicate how often they consume some food products and drinks. The results are presented in table 6. Unhealthy food (for example, chocolates, cakes, chips, salty nuts, pizza, hamburger, etc.) daily and several times per week were consumed by smaller part of respondents. Products recommended to eat everyday or several times per day (for example fresh fruits, milk products, cooked vegetables etc.) were consumed by the greater part of respondents.

Table 6. Frequencies of consumption of some food and drink products among foreign students

<table>
<thead>
<tr>
<th>Type of food</th>
<th>Several times a day</th>
<th>Every day</th>
<th>4-6 times a week</th>
<th>1-3 days a week</th>
<th>Several times a month</th>
<th>Seldom or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweets: Chocolate, cakes, cookies, ice cream etc.</td>
<td>4.7</td>
<td>10.3</td>
<td>24.4</td>
<td>21.8</td>
<td>23.9</td>
<td>15.0</td>
</tr>
<tr>
<td>Snacks: Chips, salty nuts, popcorns etc.</td>
<td>2.1</td>
<td>3.4</td>
<td>8.5</td>
<td>27.7</td>
<td>31.5</td>
<td>26.8</td>
</tr>
<tr>
<td>Fast food: Pizza, hamburger, French fries etc.</td>
<td>1.7</td>
<td>2.6</td>
<td>11.9</td>
<td>31.1</td>
<td>36.2</td>
<td>16.6</td>
</tr>
<tr>
<td>Fresh fruits</td>
<td>13.0</td>
<td>26.0</td>
<td>21.6</td>
<td>26.4</td>
<td>6.9</td>
<td>6.1</td>
</tr>
<tr>
<td>Cooked vegetables in soup, as salads (except potatoes)</td>
<td>11.2</td>
<td>21.6</td>
<td>31.0</td>
<td>20.3</td>
<td>9.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Meat products</td>
<td>7.8</td>
<td>28.9</td>
<td>33.6</td>
<td>18.1</td>
<td>7.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Fish / sea food</td>
<td>3.9</td>
<td>4.3</td>
<td>21.5</td>
<td>31.8</td>
<td>27.9</td>
<td>10.7</td>
</tr>
<tr>
<td>Milk / dairy products</td>
<td>18.3</td>
<td>40.4</td>
<td>23.4</td>
<td>9.8</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Lemonade / soft drinks with sugar (not diet drinks)</td>
<td>3.4</td>
<td>7.7</td>
<td>17.0</td>
<td>21.7</td>
<td>20.9</td>
<td>29.4</td>
</tr>
</tbody>
</table>

Further analysis of eating habits of students was performed by gender. table 7 presents the results of males and females who eat according to recommendations. As we can see, there are significant differences found among males and females who eat some meals which are
recommended for daily use (such as fresh fruit, milk), and food what is recommended to use with limitation (such as sweets, lemonades, fast food). Significantly more females eat fresh fruits and milk products daily in comparison with males. Significantly more males eat meat daily in comparison with females. Furthermore, fast food; lemonades were consumed in bigger proportion by males than females.

Table 7. Proportions of students who eat according to recommendations by gender

<table>
<thead>
<tr>
<th>Type of food</th>
<th>Males</th>
<th>Females</th>
<th>Chi squared</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh fruit daily</td>
<td>30.3</td>
<td>48.2</td>
<td>7.828</td>
<td>0.005</td>
</tr>
<tr>
<td>Milk products daily</td>
<td>52.1</td>
<td>64.9</td>
<td>3.984</td>
<td>0.046</td>
</tr>
<tr>
<td>Cooked vegetables daily</td>
<td>29.7</td>
<td>36</td>
<td>1.046</td>
<td>0.306</td>
</tr>
<tr>
<td>Meat daily</td>
<td>48.3</td>
<td>24.1</td>
<td>14.464</td>
<td>&lt;0.0005</td>
</tr>
<tr>
<td>Fish once a week</td>
<td>60.5</td>
<td>62.3</td>
<td>0.078</td>
<td>0.781</td>
</tr>
<tr>
<td>Sweets once a week</td>
<td>60</td>
<td>62.3</td>
<td>0.128</td>
<td>0.721</td>
</tr>
<tr>
<td>Snacks once a week</td>
<td>46.3</td>
<td>36.8</td>
<td>2.151</td>
<td>0.142</td>
</tr>
<tr>
<td>Fast food once a week</td>
<td>60.3</td>
<td>33.3</td>
<td>17.165</td>
<td>&lt;0.0005</td>
</tr>
<tr>
<td>Lemonades once a week</td>
<td>63.6</td>
<td>35.1</td>
<td>19.136</td>
<td>&lt;0.0005</td>
</tr>
</tbody>
</table>

Further analysis of eating habits of students by study year was performed. As we can see from the table 8 significant differences were found in the consumption of some food items which are recommended for daily use. Bigger proportion of older study year students consumed fresh fruits, milk products and cooked vegetables daily in comparison with younger year students. Daily meat consumption was significantly higher among younger students than older year students.
Table 8. Proportions of students who eat according to recommendations by study year

<table>
<thead>
<tr>
<th>Type of food</th>
<th>1-2 year of study</th>
<th>3-6 year of study</th>
<th>Chi squared</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh fruit daily</td>
<td>29.7</td>
<td>45</td>
<td>5.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Milk products daily</td>
<td>49.5</td>
<td>63.9</td>
<td>4.781</td>
<td>0.029</td>
</tr>
<tr>
<td>Cooked vegetables daily</td>
<td>24.4</td>
<td>38</td>
<td>4.614</td>
<td>0.032</td>
</tr>
<tr>
<td>Meat daily</td>
<td>44.9</td>
<td>31.5</td>
<td>4.291</td>
<td>0.038</td>
</tr>
<tr>
<td>Fish once a week</td>
<td>54.9</td>
<td>65.5</td>
<td>2.603</td>
<td>0.107</td>
</tr>
<tr>
<td>Sweets once a week</td>
<td>60</td>
<td>61.8</td>
<td>0.076</td>
<td>0.783</td>
</tr>
<tr>
<td>Snacks once a week</td>
<td>46.2</td>
<td>38.9</td>
<td>1.211</td>
<td>0.271</td>
</tr>
<tr>
<td>Fast food once a week</td>
<td>51.6</td>
<td>44.4</td>
<td>1.161</td>
<td>0.281</td>
</tr>
<tr>
<td>Lemonades once a week</td>
<td>57.1</td>
<td>45.1</td>
<td>3.214</td>
<td>0.073</td>
</tr>
</tbody>
</table>

Water is our body's principal chemical component and makes up about 60 percent of your body weight. Every function in our body depends on water. For example, water flushes toxins out of vital organs, carries nutrients to your cells, and provides a moist environment for ear, nose and throat tissues. Lack of water can lead to dehydration, a condition that occurs when you don't have enough water in your body to carry out normal functions. Even mild dehydration can drain your energy and make you tired [38].

In the questionnaire there was an open question on the daily amount of water consumption. Present study results show that the majority of males and females drink 1.5 liter or more water in a day.

Almost two thirds (59.2%) of students wrote that they cook their food for every meal or once in a day. Analyzing by gender no significant differences were found Fig.7, though greater proportion of females cooked for every meal (respectively 36.5% and 30%), and greater proportion of males cooked once in a day (respectively 31.7% and 20%).
Students were asked if they prefer to eat already prepared food. Analyzing by gender significant differences were found (Fig.8).
By concluding this chapter we can say that the majority of respondents eat 3 times or more per day. But 28.8% of respondents eat two times or only once per day. The highest proportion was of those students who eat breakfast every day. But tendencies were such that greater proportion of males skipped their breakfast in comparison with females. Significantly more females eat fresh fruits and milk products daily in comparison with males. Significantly more males eat meat daily and fast food more often in comparison with females; lemonades were consumed in bigger proportion by males than females. Bigger proportion of older study year students consumed fresh fruits, milk products and cooked vegetables daily in comparison with younger year students.

3.2.2 PHYSICAL ACTIVITY

Physical activity (PA) is defined as any bodily movement produced by skeletal muscles those results in energy expenditure. Regular PA is important to health general [2] and has been shown to be effective across the lifespan, among young and old alike. PA has been shown to improve educational attainment in students as well as prevent obesity [15]. According to our study results Fig. 9 it was revealed that bigger part (74%) of respondents was involved in PA. Moreover, significant differences were found while analyzing according to age groups. The highest involvement in PA was of students in 21-24 years age group and lowest in age group of 16-20 years.
χ²=8.519; df=2; p=0.014

**Fig. 9. Distribution (%) of students by involvement in physical activity by age groups**

Additionally, the study results show statistically significant differences in physical activity of males and females (χ²=3.339; df=1; p=0.068). As we can see in table 9 significantly more males were involved in physical activity (78.9%) than females (68.4%).
Table 9. Involvement of students in physical activity by gender

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Yes, involved</td>
<td>97</td>
<td>78.9</td>
<td>78</td>
<td>68.4</td>
<td>175</td>
<td>73.8</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>21.1</td>
<td>36</td>
<td>31.6</td>
<td>62</td>
<td>26.2</td>
</tr>
<tr>
<td>Total</td>
<td>123</td>
<td>100</td>
<td>114</td>
<td>100</td>
<td>237</td>
<td>100</td>
</tr>
</tbody>
</table>

According to the results Fig. 10 most of 3-6 year students are involved in physical activity in comparison with 1-2 year students.

\[ \chi^2 = 5.787; \text{df}=1; p=0.016 \]

Fig.10. Proportion (%) of students by involvement in physical activity by study year
In Fig. 11 study results depicts that more than a half of students are involved in physical activity three or two times per week; almost one third of students are involved in PA four or five times per week.

**Fig. 11. Distribution (%) of students by frequency of physical activity per week**

In conclusion we can say that greater part of students is involved in PA. Significant differences were found among age groups: more students in age group of 21-24 years were involved in PA with comparison to other age groups. Most of males were physically active as compared to females. Students from 3-6 study years were more physically active. More than a half of students are physically active three or two times per week.
3.2.3 SLEEP AND ITS QUALITY

A number of reports have indicated that adolescents and indeed everyone needs at least eight hours of sleep per night. Generally, university undergraduates have school schedule requirements which require them to be fully awake early in the morning. Recommended sleep duration for young adults of 18-26 years by National Sleep Foundation is 7-9 hours [20]. Students were asked about how many hours they usually sleep on weekdays and weekends. Significant differences were observed. As we can see in fig.12 on weekdays most of the students sleep 6-7 hours: almost two thirds of females and half of males. One fourth of males and females sleep less than 6 hours and only one fourth of males and every tenth of females sleep according to recommended sleep hours.

\[ \chi^2 = 11.948; \text{ df}=3; \text{ p}=0.008 \]

**Fig. 12. Distribution of males and females by sleep hours during weekdays**
Sleep hours of students during weekends are presented in (Fig.13). Higher proportion of students sleeps according to recommended sleep hours on weekends (respectively 58.2% of males and 62.9% of females). But more than 9 hours on weekends sleep 3 times more males in comparison with females. The lowest proportion is of those students who sleep less than 6 hours during weekends.

\[\chi^2=9.562; \ df=3; \ p=0.023\]

**Fig. 13. Distribution (%) of males and females by sleep hours during weekends**
Further analysis of sleep duration during weekdays was made according to different age groups and no significant differences were found. But the results are interesting and worth describing.

As it is seen in Fig. 14 less than one fifth of students in all age groups sleep as many hours as recommended – 8-9 hours, and more students from younger age group. Greater part of students in all age groups sleeps 6-7 hours, and one fifth or one fourth of students sleep even less than 6 hours on weekdays.

![Fig. 14. Distribution of students by sleep hours during weekdays by age groups](chart)

\[ \chi^2 = 3.629; \text{ df}=6; \ p=0.727 \]
Further analysis of sleep duration during weekends according to different age groups indicate (Fig. 15) that biggest part of students from all age groups try to catch the sleep gap and sleep according to recommended sleep hours. No significant differences were found.

\[
\chi^2=7.296; \text{ df}=6; p=0.294
\]

**Fig. 15. Distribution of students by sleep hours during weekends by age group**

In the questionnaire students were asked about the quality of their sleep. More than one third of students (37.2\%) answered, that they are happy with the quality of their sleep, less than half (42.3\%) – not always happy and every fifth (20.5\%) – not satisfied. The answers were also analyzed by gender and age groups of students. No significant differences were observed.

The analysis of data by the age group show that in all age groups a little more than one third (36.8\%) of students were happy with the quality of their sleep (\(\chi^2=4.679; \text{ df}=4; p=0.322\)).
In (Fig 16) the sleep quality by gender is presented. As we can see higher proportion of males were satisfied with their quality of sleep as compared to females. And higher proportion of females was not always happy with their sleep quality in comparison with males.

χ²=2.469; df=2; p=0.291

**Fig. 16. Distribution (%) of males and females by their quality of sleep**

A number of studies have showed a high prevalence of bad quality of sleep among university students varying from 19.17% to 57.5% and being especially high among medical students. Poor sleep has a significant negative influence on physical and mental health, performance at the studies, and quality of life of students what requires attention of doctors and pedagogues [19].

Students were asked about any relaxation activities they practice for body and mind. Study results show that relaxation activities are quite popular among International students: almost half of students (47.5%) usually use some methods of relaxation, 14.3% of students practice, but not always, and a little bit more than one third (38.2%) do not use.

Respondents were asked to specify methods of relaxation they use. It appeared that students use different relaxation activities, for instance, gym, jogging, sports, breathing and muscle exercise, listening to music, reading, meditation, yoga, watching movies, playing video games, shopping and spending time with friends, etc.
Analyzing answers about happiness of students with leisure time greater proportion (69.7%) of students were happy with their time and others were not. We can guess, because time is not enough for their leisure activities. Moreover, the favorite leisure time activities of respondents were playing games like football, basketball, badminton, enjoy with friends and shopping, dancing, exercise, evening walk, fishing, hiking, playing musical instruments, watching movies and TV shows etc.

### 3.3 MENTAL HEALTH

Medical schools and universities are responsible for ensuring that graduates are knowledgeable, skillful, and professional. Training highly capable medical doctors is a socially important task for medical schools and universities. Mosley et al. have reported that medical school is recognized as a stressful environment that often exerts a negative effect on students academic performance, physical health, and psychological well-being [39].

Further analysis show that more than half (58.2%) of the respondents think that they are good at organizing their time, always find solutions to their serious problems, have trust on their decisions, are happy with their achievements and feel that rules and regulations are important in their life. Moreover, most (76.3%) of international students reply that they are not depressed and two thirds (62.6%) – that they are not anxious. Most (82.1%) of the students are happy with their personal life.

The answers on mental health were analyzed by gender and study year. The results are presented in the (Table 10). Some significant differences were found regarding males and females opinions. Significantly more males felt completely trust on their judgments and decisions in comparison with females. Self-esteem has well-known consequences not only on current physical and mental health and health-related behavior, but also on future health and health-related behavior during adulthood.
Table 10. Proportion (%) of international students who answered affirmatively on questions regarding their mental health

<table>
<thead>
<tr>
<th>Percentage of students who:</th>
<th>Males</th>
<th>Females</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>1-2 study year</th>
<th>3-6 study year</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel that they are able to live their life the way they want</td>
<td>66.4</td>
<td>69.8</td>
<td>0.338</td>
<td>0.845</td>
<td>64.5</td>
<td>70.3</td>
<td>1.067</td>
<td>0.587</td>
</tr>
<tr>
<td>Feel that they are good at organizing their time</td>
<td>62.3</td>
<td>53.9</td>
<td>2.449</td>
<td>0.294</td>
<td>54.3</td>
<td>60.7</td>
<td>1.040</td>
<td>0.594</td>
</tr>
<tr>
<td>Always find a solution when anything unforeseen happens</td>
<td>72.7</td>
<td>62.1</td>
<td>4.023</td>
<td>0.134</td>
<td>67.7</td>
<td>67.4</td>
<td>0.078</td>
<td>0.962</td>
</tr>
<tr>
<td>Trust completely about their judgments and decisions</td>
<td>71.3</td>
<td>56.9</td>
<td>6.295</td>
<td>0.043</td>
<td>65.6</td>
<td>63.4</td>
<td>0.154</td>
<td>0.926</td>
</tr>
<tr>
<td>Are happy with their self and their achievements</td>
<td>76.9</td>
<td>75.9</td>
<td>8.780</td>
<td>0.012</td>
<td>76.3</td>
<td>76.4</td>
<td>1.438</td>
<td>0.487</td>
</tr>
<tr>
<td>Feel rules and regulations are important in their everyday life</td>
<td>60.7</td>
<td>67.2</td>
<td>2.188</td>
<td>0.335</td>
<td>67.7</td>
<td>61.4</td>
<td>1.134</td>
<td>0.567</td>
</tr>
<tr>
<td>Are happy with their personal life</td>
<td>85.8</td>
<td>78.3</td>
<td>2.331</td>
<td>0.312</td>
<td>81.7</td>
<td>82.4</td>
<td>0.056</td>
<td>0.972</td>
</tr>
<tr>
<td>Have friends</td>
<td>94.3</td>
<td>96.5</td>
<td>4.439</td>
<td>0.109</td>
<td>97.8</td>
<td>93.8</td>
<td>2.268</td>
<td>0.322</td>
</tr>
<tr>
<td>Are happy with their friendship</td>
<td>92.6</td>
<td>92.1</td>
<td>1.024</td>
<td>0.599</td>
<td>90.1</td>
<td>93.8</td>
<td>2.132</td>
<td>0.344</td>
</tr>
<tr>
<td>Are comfortable about the way they relate and communicate with others</td>
<td>87.7</td>
<td>78.4</td>
<td>3.951</td>
<td>0.139</td>
<td>77.4</td>
<td>86.9</td>
<td>4.040</td>
<td>0.133</td>
</tr>
<tr>
<td>Are able to ask someone for help when they are in a problem</td>
<td>87.7</td>
<td>95.7</td>
<td>5.420</td>
<td>0.067</td>
<td>87.1</td>
<td>94.5</td>
<td>4.607</td>
<td>0.100</td>
</tr>
<tr>
<td>Have someone to help them when they are in need</td>
<td>94.2</td>
<td>99.1</td>
<td>4.618</td>
<td>0.099</td>
<td>97.8</td>
<td>95.8</td>
<td>1.381</td>
<td>0.501</td>
</tr>
<tr>
<td>Are on the whole satisfied with the support they get in problematic situations</td>
<td>80.3</td>
<td>80.9</td>
<td>0.012</td>
<td>0.994</td>
<td>79.3</td>
<td>81.4</td>
<td>0.188</td>
<td>0.910</td>
</tr>
<tr>
<td>Feel meeting or communication with new people difficult for them</td>
<td>19.8</td>
<td>21.6</td>
<td>0.361</td>
<td>0.435</td>
<td>19.4</td>
<td>21.5</td>
<td>1.820</td>
<td>0.402</td>
</tr>
<tr>
<td>Prefer online social interaction over face to face communication</td>
<td>11.6</td>
<td>9.6</td>
<td>0.395</td>
<td>0.821</td>
<td>9.8</td>
<td>11.2</td>
<td>0.317</td>
<td>0.854</td>
</tr>
<tr>
<td>Use internet to talk with others when they feel lonely</td>
<td>47.5</td>
<td>44.0</td>
<td>0.301</td>
<td>0.860</td>
<td>44.6</td>
<td>46.5</td>
<td>0.129</td>
<td>0.937</td>
</tr>
<tr>
<td>Have enough money to meet their needs</td>
<td>75.4</td>
<td>81.9</td>
<td>1.769</td>
<td>0.413</td>
<td>77.4</td>
<td>79.3</td>
<td>0.418</td>
<td>0.811</td>
</tr>
</tbody>
</table>
Student’s views about their mental health tells us that greater proportion of respondents think they live their life of their own way as they want. Most of them have friends, have someone to help them when they are in need, are happy with their self and their achievements, happy with their personal life and on the whole satisfied with the support they get in problematic situations. Respondent’s answer regarding mental health and their thinking was mostly positive. It is a positive response to university.
3.4 PHYSICAL HEALTH

In recent years, researchers have been establishing the pathways through which stress exerts impacts on physical health. Its influences have been traced to both physiological pathways including impaired immune functioning and cardiovascular stress, and through poor health behaviors and perceived control and locus of control are other factors affecting students’ biological responses to stress [40].

Analyzing the data of students self-rated current health it was found that more than half (54.4%) of respondents thought they were in good health and just 23 % stated having excellent health. But every fifth (18.8%) indicated that their health is moderate and 3.8 % give response they were in poor health.

In further analysis on health by gender significant differences were found (Fig.17). The study results indicate that more females than males think their current health status is good. Bigger portion of males think they have excellent health in comparison with females. Almost equal proportion of males and females think that they have moderate current health status.

\[ \chi^2 = 0.820; \text{df} = 3; p = 0.845 \]

**Fig 17. Distribution (%) of males and females by their current health status**
Further analysis was made by study years and no significant differences were found (Fig 18). More than half of the students from both groups of study years think they are of good health status. Higher percentage of older course students thinks they have excellent health status as compared to younger course students. But these differences were not significant.

\[ \chi^2 = 2.773; \ \text{df} = 3; \ p = 0.428 \]

**Fig 18. Distribution (%) of younger and older course students’ by current health status**

Additionally, statistical analyses show that half of the students (51.9%) visited a General practitioner/Odontologist or other specialist 1-2 times in last 6 months. One third of the students (36.6%) state that they never visited any specialist; every tenth (9.4%) visited some specialist 3-4 times in last 6 months. Moreover, results of the study reveal that large percentage of students never visited Psychologist/ Mental Health specialist in last 6 months. If to compare visits for every month by gender more males in comparison with females never visited psychologist. The same could be said about males and females who have visited psychologist 1-2 times in last 6 months.
χ²=1.766; df=2; p=0.414

**Fig 19. Distribution (%) of students by having any chronic disease by gender**

Figure 19 show students distribution by chronic disease (e.g. diabetes, allergy, asthma or any other disease diagnosed by specialist). Most of males and females had no chronic disease. But every fourth of males and every sixth of females had mentioned that they have some chronic disease. But no significant differences were found while analyzing the data by gender or study year groups.

The majority (75.6%) of students wrote that they do not miss their studies at the university due to their health problems. No significant differences were found while analyzing the data by gender or study year groups.

Statistical analysis reveals that more than one third (38.6%) of respondents used medicine for any health problem, for instance, headache, stomach pain or sleep disorder etc.

When analyzing the data by study year groups no significant differences were found. Proportion of usage of medicine was equal in both study year groups (χ²=0.051; df=2; p=0.975).
But analyzing by gender significant differences were found (Fig. 20). It appears that more females in comparison with men used medicine and significantly more men than women wrote that they do not use any medicine.

\[ \chi^2 = 10.486; \text{df} = 2; p = 0.005 \]

**Fig. 20. Distribution of males and females by taking any medicine (%)**

Students were asked do they have to take more responsibility of their own health. Most of males and females have mentioned that they must take more responsibility (respectively 69.2% and 59.1%).

Present study show that respondents male were taller in comparison with females. The height ranged from 162-200 cm in males and 150-185 cm in females. Weight of male students ranged from 56-115 kg and of female – 40-92 kg. Moreover, student’s subjective evaluation of their body weight was as follows: 80.2% think their weight was normal; 13.8% thought they were overweight and 6% evaluated their body weight was underweight.

Study results show that twice more females skip meals to lose weight in comparison with males (respectively 8.7% and 4.2%), but differences are not significant (\( \chi^2 = 3.467; \text{df} = 2; p = 0.177 \)).
In conclusion it can be said that most of the international students (77.4%) think they are of good or excellent health. Significantly more females think that their health is good and significantly more men think that their health is excellent. More females in comparison with men used medicine and significantly more men than women do not use any medicine. One third of the students (36.6%) state that they never visited any health specialist during 6 month period. Every fourth of males and every sixth of females had mentioned that they have some chronic disease. The majority (75.6%) of students do not miss their studies at the University due to their health problems.

3.5 ALCOHOL AND SMOKING

Throughout the 10,000 or so years that humans have been drinking fermented beverages, they’ve also been arguing about their merits and demerits. The debate still simmers today, with a lively back-and-forth over whether alcohol is good for you or bad for you [41]. Table 11 prevalence of alcoholic beverages consumption by international students reveal that % of drink higher all these products for example beer, wine, cocktail and strong alcohol those drink 2-3 times a month than others responses. Moreover, study results show that males were higher those drink beer, wine once a week and 2-3 times a week as to females but on the contrary, females were in large percentage those drink wine 2-3 times a month was 37.5% and males 29.1%, and females drink cocktail more for instance once a week and 2-3 times a month than males. Additionally, statistics for strong alcohol indicates, males higher those drink once a week than females but percentage of females high those drink 2-3 times a week 8.1% and males 4.3%, which was less than females. Results of a study based on theme assessment of links between perceived health, emotional status, and health behavior among students of Kaunas Universities show results also that males prevailed over females in consumption of beer and strong alcoholic drinks and women were more often consumed wine as in our study (.Dalius Petrauskas, Kaunas 2004 [42]).
Table 11. Distribution (%) of international students by consumption of alcoholic beverages

<table>
<thead>
<tr>
<th>Type of a drink</th>
<th>Everyday</th>
<th>2-3 times a week</th>
<th>Once a week</th>
<th>2-3 times a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>0.4</td>
<td>21.1</td>
<td>19.4</td>
<td>22.8</td>
<td>36.2</td>
</tr>
<tr>
<td>Wine</td>
<td>0.4</td>
<td>7.4</td>
<td>12.2</td>
<td>33.2</td>
<td>46.7</td>
</tr>
<tr>
<td>Cocktail</td>
<td>0</td>
<td>4.8</td>
<td>11.8</td>
<td>31.4</td>
<td>52</td>
</tr>
<tr>
<td>Strong alcohol</td>
<td>0.4</td>
<td>6.2</td>
<td>14.5</td>
<td>31.3</td>
<td>47.6</td>
</tr>
</tbody>
</table>

Previous study results have indicated that the social environment is an important factor in cigarette smoking. A social context has been shown to be an important factor in the initiation of smoking, as well as becoming an established smoker. Tobacco industry researchers place great emphasis on how social environments can encourage increased consumption of cigarettes because these social activities are of great importance to young adults. Therefore, the tobacco companies target social environments attended by young adults, thus associating smoking with social activities [43]. Sometimes students stop smoking if they spend their most of time in good company, those do not smoke. Our study results show that prevalence of smoking among male was significantly higher than among females (Fig.21).
χ²=6.031; df=1; p=0.014

Fig.21 Distribution (%) of students on ever smoking by gender

Presently was 21.4% those were regular smoker and sometimes smokers were less 12.4% and total percentage of males were higher 55.7% than female 44.3% who smoke when study was conducted. According to study year 3-6 year students smoke higher 55.7%, and 1-2 year 44.3% lower smoking percentage. This habit was more popular among males. 29.5% of the first year male students, and 18.8% of females of Kaunas Universities smoked daily (Dalius Petrauskas, Kaunas 2004).

Moreover, the response of the students for how many cigarettes they smoke per day their answers were varied from 1-62 cigarettes per day. But females mostly smoke 1-10 cigarettes per day and for males number of cigarettes smoke per day was higher – from 10-20 cigarettes. On the contrary prevalence of use of electronic cigarettes was almost equal for both males and female.

Further analysis was made on answers about quitting to smoke. From smokers 52.3% of males 43.8% of females have tried to quit smoking and percentage of females was higher for whom attempt to quit smoking was more successful in comparison with males.
3.6 UNIVERSITY PROBLEMS

Previous reports show that a large number of students are motivated to choose their university because it is close to home or this is influenced by socio-economic status. Institution type can also be seen to have a significant impact on the reasons students choose their university [44].

According to the current study results students’ satisfaction with the way of communication with teachers as follows: 23.7% are satisfied, 57.9% not always satisfied and the rest 18.4% are unsatisfied. No significant differences were found while analyzing the data by gender and study year groups.

Students were asked to describe any difficulties in communication with teachers. According to study results, such difficulties were in communication with teachers mainly language barrier and sometimes negative attitude, lack of time on teachers side, difficulties with Pat. Anatomy department, administrators of Chemistry or Anatomy Departments, difficulties in understanding lectures, misunderstandings; students sometimes do not get answers for their calls and emails. But more than half (54%) of students do not feel difficulties in understanding tasks/assignments provided by teachers, others have some problems. No significant differences were found while analyzing the data by gender and study year groups.

Students were asked if they are satisfied with evaluation criteria of their studies in the University. Study results show that only one third of students (32.3%) is satisfied and almost half (48.2%) – not always. No significant differences were found while analyzing the data by gender and study year groups.

Students were asked to write their opinion on the way of teaching/quality of studies in the University. The results are presented in the Table 12. No significant differences were found, but the results are interesting.
Table 12. Opinion (%) of international students about the way of teaching

<table>
<thead>
<tr>
<th>Satisfied with the way of teaching/quality of studies</th>
<th>Males</th>
<th>Females</th>
<th>$\chi^2$</th>
<th>p-value</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>5.9</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly satisfied</td>
<td>33.1</td>
<td>26.5</td>
<td>3.486</td>
<td>0.480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>42.4</td>
<td>49.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly not satisfied</td>
<td>15.3</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not satisfied</td>
<td>3.4</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student’s views regarding teaching learning methods in the university are presented in (Table 13).

Table 13. Distribution of opinion (%) about teaching methods by gender

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very helpful</td>
<td>20.5</td>
<td>25.2</td>
<td>22.8</td>
</tr>
<tr>
<td>I need more help</td>
<td>14.5</td>
<td>12.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Alternative tutor needed</td>
<td>18.8</td>
<td>12.6</td>
<td>15.8</td>
</tr>
<tr>
<td>Way of teaching can be changed</td>
<td>46.2</td>
<td>49.6</td>
<td>47.8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Moreover, student’s views regarding changes if they like to add were, no frequent changes in rules, better English of teachers for international students, change in arrogant behavior toward international students, better classrooms and clean toilets, better correlation of material taught in lectures and tested in exam, silent library, more practice with patients, better pharmacy lessons, between two courses break for the next, first class not good, credit book system out dated and
should be systematized, hard time table cause miss meals, more schedules in English for Erasmus students and lab work should not be compulsory etc.

3.7 ASSOCIATIONS BETWEEN LIFESTYLE, WORKLOAD, AND PSYCHOLOGICAL WELLBEING

Significant differences were found among students, who stated that they have enough of time for studies and quality of sleep of respondents ($\chi^2 = 42.177$, df = 4, $p < 0.001$); sleep hours per night on weekdays ($\chi^2 = 22.328$, df = 6, $p = 0.001$) and sleep hours per night on weekends ($\chi^2 = 14.709$, df = 6, $p = 0.023$); satisfaction with support of teachers in the University ($\chi^2 = 15.515$, df = 4, $p = 0.004$); daring to ask someone’s help if needed ($\chi^2 = 18.897$, df = 4, $p = 0.001$).

More students who wrote that they have enough time for their assignments, stated that they are satisfied with the support they receive from teachers and other staff in the University. Sleep quality was better of those students who thought that they have enough time for their assignments. Most students who stated that they are unhappy with their sleep quality stated that they have not enough time for their study assignments.

Time of night sleep is of great importance for health. Most students, who slept 6-7 hours on weekdays, more often stated that they have enough time for assignments, and these students who slept 8-9 hours on weekdays, more often stated that there is not enough time for them for study assignments.

Significant differences were found among students, who stated that they are involved in any type of physical activity and self satisfaction ($\chi^2 = 18.695$, df = 2, $p < 0.001$). More students, who were involved in some physical activities during leisure time, were satisfied with themselves.

While further analysis as in (Table 14) greater proportion of students involved in physical activity answered that they have enough time for their studies and assignments. Students who are good at organizing their time also think that they have enough time for their studies.
Table 14. Associations between personal features and having enough time for studies

<table>
<thead>
<tr>
<th>Variables:</th>
<th>Enough time for studies</th>
<th>Not enough time for studies</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook food for every meal</td>
<td>35.7%</td>
<td>33.3%</td>
<td>6.306</td>
<td>0.613</td>
</tr>
<tr>
<td>Physically active</td>
<td>72.9%</td>
<td>63.2%</td>
<td>1.664</td>
<td>0.435</td>
</tr>
<tr>
<td>Happy with the quality of sleep</td>
<td>48%</td>
<td>5.3%</td>
<td>42.177</td>
<td>&lt;0.0005</td>
</tr>
<tr>
<td>Good at organizing their time</td>
<td>67.3%</td>
<td>42.1%</td>
<td>6.568</td>
<td>0.161</td>
</tr>
<tr>
<td>Excellent in current health status</td>
<td>28.6%</td>
<td>21.1%</td>
<td>12.585</td>
<td>0.050</td>
</tr>
<tr>
<td>Eating meal 1-2 times a day</td>
<td>29%</td>
<td>50%</td>
<td>6.902</td>
<td>0.141</td>
</tr>
</tbody>
</table>

While analyzing the data searching for associations between lifestyle and personal psychological features some significant associations were found. As we can see in the Table 15 smokers feel more depressed and anxious in comparison with non smokers. Significantly more non smokers are satisfied with the support they get in any problematic situation than nonsmokers. Greater proportions of nonsmokers are happy with their life and achievements more as compare to smokers but this difference was not statistically difference.

Table 15. Associations between smoking and psychological wellbeing variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non smokers</th>
<th>Smokers</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel depressed</td>
<td>6.5%</td>
<td>19%</td>
<td>8.482</td>
<td>0.014</td>
</tr>
<tr>
<td>Feel anxious</td>
<td>20.8%</td>
<td>42.9%</td>
<td>12.375</td>
<td>0.002</td>
</tr>
<tr>
<td>Satisfied with the support got in problematic situations</td>
<td>84.5%</td>
<td>74.7%</td>
<td>5.768</td>
<td>0.050</td>
</tr>
<tr>
<td>Happy with himself and his achievements</td>
<td>79.4%</td>
<td>70.5%</td>
<td>2.606</td>
<td>0.272</td>
</tr>
<tr>
<td>Always find solution when anything unforeseen happen</td>
<td>69%</td>
<td>66.7%</td>
<td>1.419</td>
<td>0.492</td>
</tr>
<tr>
<td>Happy with personal life</td>
<td>85.5%</td>
<td>78.5%</td>
<td>2.167</td>
<td>0.338</td>
</tr>
<tr>
<td>Feeling communication with new people is difficult</td>
<td>18.2%</td>
<td>24.1%</td>
<td>1.129</td>
<td>0.569</td>
</tr>
</tbody>
</table>
While analyzing the data searching for associations between lifestyle and enough time for studies and assignments some more significant associations were found. As we can see in the table 16 significant differences were found in students who consume beer once a week answered not always enough time for studies and assignments.

Table 16. Associations between having enough time for studies and lifestyle variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Enough time for studies</th>
<th>Not enough time for studies</th>
<th>Not always enough time for studies</th>
<th>$\chi^2$</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use some relaxation activities</td>
<td>51.5%</td>
<td>42.1%</td>
<td>44.6%</td>
<td>3.447</td>
<td>0.486</td>
</tr>
<tr>
<td>Physically active</td>
<td>72.9%</td>
<td>63.2%</td>
<td>76.7%</td>
<td>1.664</td>
<td>0.435</td>
</tr>
<tr>
<td>Prefer to eat already prepared food</td>
<td>20.4%</td>
<td>44.4%</td>
<td>22.9%</td>
<td>7.894</td>
<td>0.096</td>
</tr>
<tr>
<td>Cook for every meal</td>
<td>35.7%</td>
<td>33.3%</td>
<td>31.4%</td>
<td>6.306</td>
<td>0.613</td>
</tr>
<tr>
<td>Cook once in a day</td>
<td>28.6%</td>
<td>11.1%</td>
<td>26.3%</td>
<td>6.306</td>
<td>0.613</td>
</tr>
<tr>
<td>Consume beer once a week</td>
<td>19.4%</td>
<td>16.7%</td>
<td>20%</td>
<td>4.504</td>
<td><strong>0.034</strong></td>
</tr>
<tr>
<td>Consumption strong alcohol once a week</td>
<td>12.8%</td>
<td>11.1%</td>
<td>16.7%</td>
<td>4.504</td>
<td>0.809</td>
</tr>
<tr>
<td>Smoke now</td>
<td>20.4%</td>
<td>33.3%</td>
<td>20.5%</td>
<td>2.064</td>
<td>0.724</td>
</tr>
</tbody>
</table>
CONCLUSIONS

Nutrition habits of students are not very healthy. Almost one third (28.8%) of students eat 2 times or only once a day. They consume unhealthy foods quite often. Most students cook their food, but sometimes they also prefer prepared food. Most of international students (74%) are involved in some physical activity. One fourth of the students sleep less than 6 hours during weekdays. Prevalence of daily smoking is 29.2% in men and 13.2% in women. Every fourth student consumes beer and 6.6% strong alcohol several times a week. More than half females and males think their current health status is good. Bigger portion of males think they have excellent health in comparison with females More than half of the respondents think that they are good at organizing their time, find solutions to problems, have trust on their decisions. Most of students are happy with their life, friends, friendship, and their communication with others.

Students were asked for their quality of sleep and almost half proportion of students got enough time for studies and assignments. Half of students state that they do not get enough time for their assignments. Most of the students prefer to study by participating practically and individual work. Two thirds of respondents are satisfied with their leisure time. Greater proportions of males were happy with the time they get for their leisure time activities.

Significant associations were found between some variables of lifestyle and having enough time for studies and assignments; between psychological wellbeing and smoking. Higher proportions of smoker feel depressed and anxious than nonsmokers. Significant differences were found in proportions in beer consumption among students who have enough time for studies and among those who don’t. Higher proportion of students who do not have enough time for studies and assignments prefer to eat already prepared food than those who have enough time.
PRACTICAL RECOMMENDATIONS

1. Individual health responsibility: Students should be responsible for their own health as a medical student; it will be easy for them to educate and motivate to patients if they are healthy and free from risky behaviors, they will be role model for patients as well as for their juniors and very important their careful attitude toward their health will change the countries health and economical profile.

2. Good planning of time schedule: Good planned study schedule according to their breaks for meals and according to distance and travel time from one place to another place for lectures and regular meal. Additionally, arrangement of Physical fitness centers at low cost, recreational activities and frequent physical activities programs minimum one day every week.

3. Health education and health promotion: Health education to students regarding diseases and prevention healthy diet is necessary and arrangement of seminars or health programs for student’s awareness will play important role. Moreover, 5-10 minutes compulsory break only for physical activity in between lectures not only will make them active and they can also concentrate better on next topics and involvement of teachers or motivation will help both sides for the remaining task.

4. Regular monitoring of health: Excellent health status of international students is an important for their study years as well as for their coming years as an earning person. The regular evaluation of their physical and mental health is necessary through surveys or by general practitioners every year, to maintain their good health, to prevent diseases and by contributing as a healthy individuals of the country and to prevent economical and disease burden of the country.
REFERENCES


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42. Petrauskas D, Assessment of links between perceived health, emotional status, and health behavior among students of Kaunas universities. 2004.


SUPPLEMENTS

QUESTIONNAIRE

This survey on PHYSICAL AND MENTAL WELLNESS of international students is conducted by Sarabjit Kaur Chera, the student of Public Health of Lithuanian University of Health Sciences together with the International Relations and Study Centre and Prof. Aušra Petrauskinė, Department
of Preventive Medicine. This questionnaire is about your physical and mental health, nutrition, physical activity habits, and social life experiences. Its’ aim is to promote the health and wellbeing of international students. The information you give will be used for better understanding of problems foreign students meet with and this will suggest better solutions of these problems. By filling this questionnaire you agree to participate in the survey and cooperate with us by providing valuable information. Your participation is voluntary and you are free to refuse answer any of the questions in the questionnaire. The information you provide is totally confidential and available to the researcher only. If you have any queries about this survey you may contact by email: sarab_kaur83@yahoo.com. We would like to thank you very much in advance for your kind cooperation.

**General instructions to fill questionnaire:**
1) Please mark only one answer according to your choice.
2) Please write date of filling questionnaire at the end.
3) Please write legible.
4) Please do not use boxes on right side of the questionnaire, these are for researchers use.

**Questions related to general information**

1. What is your gender? 1) Male 2) Female

2. What is the date of your birthday? Day............. Month ........Year............

3. What is the current year of your studies in the University? Please write..........................

4. From which country are you? Please write..........................

**Study related questions**

5. How do you learn the best?
1) Listening during lectures 3) Watching demonstrations 5) Sharing
2) Participating practically 4) Participating in discussions 6) other....................

6. Please rate how much you feel you have improved academically over the course of this year of the studies? 1) No improvement 2) Some improvement 3) Much improvement

7. Do you get enough time for your studies and assignments?
   1) Yes 2) No 3) Not always

**Life style and physical activity related questions**

8. Are you happy with the quality of your sleep? 1) Yes 2) No 3) Not always

9. How many hours do you usually sleep? A) Weekdays:  B) Weekends:  
1) 8-9 hour’s 1) 8-9 hours
2) 6-7 hour’s 2) 6-7 hours
3) Less than 6 hours 3) Less than 6 hours
4) More than 9 hours 4) More than 9 hours

10. Do you use any relaxation activities for your body and mind?  1) Yes  2) No  3) Not always □
11. If “Yes”, please specify...........................................................................................................
12. Are you happy with the time you get for your leisure activities?  1) Yes  2) No □
13. What is your favorite leisure time activity? Please specify...................................................
14. Are you involved in any type of physical activity (walking, running, dancing, swimming, etc.)?
   1) Yes  2) No □
15. If “Yes”, please specify
   A) How many times per week............B) How much time usually.............minutes
16. How many hours do you spend in a sitting position (during lectures, in library, working on computer, watching TV, etc.) daily? Please write:
   A) Weekdays …… hours □□  B) Weekends …… hours □□

<table>
<thead>
<tr>
<th>Mental health related questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions</td>
</tr>
<tr>
<td>17. Do you feel that you are able to live your life the way you want?</td>
</tr>
<tr>
<td>18. Do you feel that you are good at organizing your time?</td>
</tr>
<tr>
<td>19. Do you always find a solution when anything unforeseen happens?</td>
</tr>
<tr>
<td>20. Do you trust completely about your judgments and decisions?</td>
</tr>
<tr>
<td>21. Are you happy with yourself and your achievements?</td>
</tr>
<tr>
<td>22. Do you feel rules and regulations are important in your everyday life?</td>
</tr>
<tr>
<td>23. Do you feel depressed?</td>
</tr>
<tr>
<td>24. Are you happy with your personal life?</td>
</tr>
<tr>
<td>25. Do you have friends?</td>
</tr>
<tr>
<td>26. Are you happy with your friendship?</td>
</tr>
<tr>
<td>27. Are you comfortable about the way you relate and communicate with others?</td>
</tr>
<tr>
<td>28. Are you able to ask someone for help when you are in a problem?</td>
</tr>
<tr>
<td>29. Do you have someone to help you when you are in need?</td>
</tr>
<tr>
<td>30. Are you on the whole satisfied with the support you get in problematic situations?</td>
</tr>
<tr>
<td>31. Do you feel anxious?</td>
</tr>
</tbody>
</table>
32. Is meeting or communication with new people difficult for you? □ □ □
33. Do you prefer online social interaction over face to face communication? □ □ □
34. Do you use internet to talk with others when you feel lonely? □ □ □
35. Have you enough money to meet your needs? □ □ □

**Physical health related questions:**

36. What do you think about your current health status? Is it
   1) Excellent  2) Good  3) Moderate  4) Poor □
37. Have you visited a General Practitioner/Odontologist or other specialist in the last 6 months?
   1) Never  2) 1-2 times in last 6 months  3) 3-4 times in last 6 months  4) Every month □
38. Have you visited a psychologist/mental health specialist in the last 6 months?
   1) Never  2) 1-2 times in last 6 months  3) 3-4 times in last 6 months  4) Every month □
39. Do you suffer from any chronic disease (e.g. diabetes, allergy, asthma or any other disease diagnosed by specialist)?
   1) Yes  2) No  3) I do not know □
40. Do you take any medicine when you have any health problem (e.g. for headache, stomach pain, sleep disorder)?
   1) Yes  2) No  3) Sometimes □
41. Do you feel that you have to take more responsibility of your own health?
   1) Yes  2) No □
42. Do you miss your studies at the University due to your health problems?
   1) Yes  2) No  3) Sometimes □
43. What is your body weight? Please write ……………… kg □□□
44. What is your height? Please write ……………… cm □□□
45. How do you evaluate your body weight in general?
   1) Too thin  2) Normal  3) Overweight □

**Nutrition related questions:**

46. Do you eat your breakfast? 1) Everyday 2) 4-5 times a week 3) Seldom or never □
47. How many times per day do you eat? Please write………………………………………………
48. How often do you eat the following food?

<table>
<thead>
<tr>
<th>Type of food</th>
<th>Several times a day</th>
<th>Every day</th>
<th>4-6 times a week</th>
<th>1-3 days a week</th>
<th>Several times a week</th>
<th>Seldom or never</th>
</tr>
</thead>
</table>
### Food Preferences

<table>
<thead>
<tr>
<th>Category</th>
<th>Day</th>
<th>Month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweets: Chocolate, cakes, cookies, ice-cream etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Snacks: Chips, salty nuts, popcorn etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fast food: pizza, hamburger, French fries etc.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fresh fruits</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cooked vegetables in soup, as salads (except potatoes)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Meat products</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Fish / sea food</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Milk / dairy products</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lemonade/soft drinks with sugar (not diet drinks)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Questions:**

49. **How much water do you drink every day?** …….(1.5 liter or more) ☐☐

50. **Do you prefer to eat already prepared food?** 1) Yes 2) No 3) Sometimes ☐

51. **Do you cook your food?** 1) Yes, for every meal 2) Yes, once in a day 3) Sometimes 4) On weekends 5) Never ☐

52. **Do you skip your meals to lose weight?** 1) Yes 2) No 3) Sometimes ☐

### Alcohol and Smoking Related Questions:

53. **How often do you consume these alcoholic beverages?**

<table>
<thead>
<tr>
<th>Type of a drink</th>
<th>Once a week</th>
<th>2-3 times a week</th>
<th>2-3 times a month</th>
<th>Never</th>
<th>Everyday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Wine</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cocktail</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Strong alcohol</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

54. **What amount of alcohol do you consume per week in general? Please specify:**

1) Beer bottles (0.5 l).................................☐☐ 3) Cocktail (0.33 l).................................☐☐

2) Wine/champagne (100 g).............................☐☐ 4) Strong alcohol (40g).............................☐☐

55. **Have you ever smoked in your life?** 1) Yes 2) No ☐
56. Do you smoke now? 1) Yes 2) No 3) Sometimes □

57. If “Yes”, how many cigarettes do you smoke per day? Please write ……………………… □□

58. Do you use electronic cigarettes? 1) Yes 2) No 3) Sometimes □

59. If you smoke, have you ever tried to quit smoking? 1) Yes 2) No □

60. Was this attempt successful? 1) Yes 2) No □

**Accommodation related Questions:**

61. What is the type of your accommodation?
   1) Live in the Universities’ dormitory 2) Rent a room 3) Rent a flat/apartment □

   If you rent a room/flat, skip questions No. 62, 63, and 64 and again start from question 65.

62. What is your experience of living in the Universities’ dormitory? □
   1) Excellent 2) Very good 3) Good 4) Average 5) Bad

63. Do you prefer more strict rules in the dormitory (what concerns self-regulation, cleanliness, noise etc.)?
   1) Yes 2) No □

64. What changes could be useful in the dormitory?
   Please specify ………………………………………………………………………………………………………

65. With whom do you share your room/flat? □
   1) Live alone 3) Live together with my room mate
   2) Live together with my partner 4) Live together with my friend’s family

66. What is your opinion about your living conditions? Do you miss something, is it warm, quiet, clean etc? Please describe
   …………………………………………………………………………………………………………………

**University related questions:**

67. Are you satisfied with the way of communication among teachers and students?
   1) Yes 2) No 3) Not always □
68. Have you experienced any difficulties in communication with teachers, if ”yes”, please specify
........................................................................................................................................................
........................................................................................................................................................

69. Do you feel any difficulty in understanding tasks / assignments provided by teachers?
   1) Yes   2) No   3) Not always

70. Are you happy with the way of teaching/quality of studies in the University?
   1) Satisfied   2) Mostly satisfied   3) Average   4) Mostly not satisfied   5) Not satisfied

71. How do you find the teaching methods in the University?
   1) Very helpful   2) I need more attention   3) Alternative tutor needed   4) Way of teaching can be changed

72. Are you satisfied with the evaluation criteria of your studies in the University?
   1) Yes   2) No   3) Not always

73. Is there anything you would like to add or change in the University?
   Please feel free and write
........................................................................................................................................................
........................................................................................................................................................
........................................................................................................................................................
........................................................................................................................................................

Please write the date:.....................................Thank you kindly for your participation
PERMISSIONS

Sarabjit Kaur Chera
Master student of Faculty of Public Health
Lithuanian University of Health Sciences

To the Dean of International Relations and Study Center
Lithuanian University of Health Sciences
Žilvinas Padaiga

Application
For the permission regarding data collection for my Master Thesis
13th of April 2015
Kaunas

Respected sir,
Myself, Sarabjit Kaur Chera, first year Master student of Public Health of Lithuanian University of Health Sciences ask your permission to perform a survey of International Students. For my Master’s Thesis I have prepared a questionnaire on Physical and mental wellness of International Students of our University. For further my work and data collection I need your permission so that I could distribute these questionnaires among students and collect data for my thesis. I hope you will consider my permission letter and allow me to proceed further in data collection. I will be very thankful to you for this favor.

Yours sincerely,
Sarabjit Kaur Chera
DĖL PRITARIMO TYRIMUI


Bioetikos centro vadovo pavaduotojas

doc. E. Peičius