

# The stress, anxiety and depressive symptoms severity among international students at Lithuanian University of Health Sciences (LUHS).

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Kaunas 2015/2016

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## SUMMARY

The aim of the study: to investigate the relations among stress, anxiety and depressive symptoms severity among international students at Lithuanian University of Health Sciences (LUHS).

### **The objectives of the study:**

1. To evaluate sociodemographic characteristics of international students of LUHS.
2. To measure anxiety and depressive symptoms severity among international students of LUHS.
3. To investigate the stress symptoms severity within the international student population and to determine which situations leads to stress.
4. To find relations between international student's sociodemographic characteristics and stress, anxiety and depressive symptoms severity.

**Study population and methods:** 180 international students of LUHS from all years of study and faculty, proportionately, after signed inform consent form will be anonymously evaluated for anxiety, depressive and stress symptoms severity, using the DASS-42 (Depressive Anxiety Stress Scale) instrument. Students fill socio-demographic questionnaire and a stressor (Likert scale) questionnaire - to assess most stressful situations.

**Result:** It was reported moderate depressive symptoms severity 17,5 (4, 00), mild anxiety symptoms severity 9, 00 (3, 0) in 50% and moderate stress symptoms severity 21,0 (4, 65) in 75% of international students that was statistically significant ( $p < 0, 05$ ).

Most stressful situations with( %): Language(**24,4**), Apart from family, friends and home(**70,0**), Passing studies(**21,7**), Retakes/missing class(**5,5**), Dealing with the University life and Achieving your goals(**30**).( $p < 0,0001$ ). Females had slightly more depressive, anxiety and stress symptoms than males ( $p < 0, 05$ ). Younger generation had more depressive, anxiety and stress symptoms than older generation.( $p < 0, 0001$ ). Pre-clinical year's had more depressive, anxiety and stress symptoms severity than clinical year's students ( $p < 0, 05$ ). Married students had less depressive and stress symptoms than in relationship and single students ( $p < 0, 05$ ). Students with a past family history of depressive/anxiety had less anxiety symptoms severity than students without history( $p < 0, 05$ ). Students that failed to qualify to their main faculty had a less anxiety symptoms severity than students choosing by their own

preference ( $p < 0,05$ ). No smokers had less stress and depressive symptoms severity than smokers ( $p < 0,0001$ ). Moderate drinkers had less depressive symptoms severity mean score than non-drinkers ( $p < 0,05$ ). Students with poor Lithuanian Language had more depressive and stress symptoms severity than moderate students language skills ( $p < 0,05$ ).

### **Conclusion:**

1. Higher scores of depressive and anxiety symptoms severity in 50%, Higher scores of stress symptoms severity in 75% of the international students.
2. Language, distance from family&home, passing studies, retakes and coping with University life are most stressful situations.
3. Preclinical, young, female, single, smokers, and poor language students had more symptoms severity.
4. Clinical, older, male, in relationship, moderate drinkers, and good language students had less symptoms severity.

## **CONFLICT OF INTEREST**

No conflicts of interest.

## **ETHICS COMMITTEE CLEARANCE**

Title: The stress, anxiety and depressive symptoms severity among international students at Lithuanian University of Health Sciences (LUHS).

Number: BEC-MF- 865

Date of issue: 2015-06-26

## **Terms**

DASS-42 (Depressive Anxiety Stress Scale)

## **ABBREVIATION LIST**

Lithuanian University of Health Sciences (LUHS).



**LIETUVOS SVEIKATOS MOKSLŲ UNIVERSITETAS**

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**DĖL PRITARIMO TYRIMUI**

LSMU Bioetikos centras, įvertinęs (MA) vientisųjų studijų programos – MEDICINA V k. stud. Riyath Nassr (mokslinio darbo vadovė: dr. Vesta Steiblienė, Psichiatrijos klinika) mokslinio-tiriamojo darbo temos: „Nerimo ir depresijos simptomai kaip psichologinės ir sociokultūrinės adaptacijos žyminis tarp LSMU užsienio studentų“ tiriamojo darbo anotaciją, tiriamojo asmens informavimo formą, tiriamojo asmens sutikimo formą ir anketą, kurie leidžia spręsti, jog planuojamame tyrime neturėtų būti pažeistos tiriamojo teisės, todėl šiam tyrimui pritariama.

Bioetikos centro vadovo pavaduotojas

doc. E. Peičius

# INTRODUCTION

Since Lithuanian University of Health Science opened their doors to international students from all over the globe, the number of international students has continued to grow with today's globalization. [1, 12] Consequently, the number of international students opened to study overseas has increased significantly. [1, 12, 18] In many European and Asian universities, this international expansion of students has been going on for a longer time than LUHS. [4]

The relationship between distress (depressive, acculturative stress, anxiety) symptoms severity and the students' performance have been an important factor to discuss and dealing with this matter in a proper way can therefore lead to an overall improvement in student mental health quality and study performance. [15, 16, 17, 18] Leaving the comfort zone at home to attend university can be very stressful to students. [2, 4,5,12, 13]

When starting University studies and leaving home the students go through many changes and experiences such as emotional, sexual, economic, weather, academic, social and as well as efforts of discovering one's identity. [2, 5, 12, 13, 19]

This is because they are presented into a new country and maybe continent, thus they have to deal with a new social and educational environment. [2, 5, 12, 13, 15]

In addition, students have to deal with the academic and social demands that they encounter in university studies and in their preparation for professional careers. [2, 5]

Therefore, the period of undergraduate education is a sensitive period in an individual's life span. This period is regarded by many as important time of life and intervention methods in early stage may prevent or reduce mental problems.

During studies at LUHS the students, within medical and odontological faculty, will as well counteract with many patients and deal with their problems and diseases. Exposure to patients' suffering and deaths is a hard issue to deal with. It's hard to not get any feelings/attachments for the patients.

When going through the acculturation process, individuals face challenges regarding the use of language, fitting in the society and finding your identity.[12, 13, 14] The experience of acculturative stress from the pressure or stress imposed upon international students when adjusting to the new environment in LUHS is a big factor of today's distress. [3]

It's important to deal with this issue and help the new international students by giving information and support. [3]

Depressive symptoms is a common mental disorder that presents with depressed mood, loss of interest pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite and low energy.[6, 20] Depressive symptoms has a quick and harsh effect on new arrived international students and the feeling of depressed mood can be the start of a major health and mental dysfunctions. [6, 20]

Anxiety is a feeling of fear, uneasiness, and worry, usually generalized and unfocused as an overreaction to a situation. [7] It is often accompanied by muscular tension, restlessness, fatigue and problems in concentration.[7] Constant worrying is very common and new international students often get into bad habits to avoid this emotion. [4]

## **AIM AND OBJECTIVE OF THE THESIS**

The aim of the study: to investigate the relations among stress, anxiety and depressive symptoms severity among international students at Lithuanian University of Health Sciences (LUHS).

The objectives of the study:

1. To evaluate sociodemographic characteristics of international students of LUHS.
2. To measure anxiety and depressive symptoms severity among international students of LUHS.
3. To investigate the stress symptoms severity within the international student population and to determine which situations leads to stress.
4. To find relations between international student's sociodemographic characteristics and stress, anxiety and depressive symptoms severity.

## **LITERATURE REVIEW**

There have been made different researches with similar theoretical studies as this thesis and relating to the stress, anxiety and depressive symptoms severity among international students at Lithuanian University of Health Sciences (LUHS).

A cross-sectional study was performed among Korean international students living in Pittsburgh area. [8] This research studied the relationship between acculturative stress and mental health symptoms and the role of social support as a moderator of this relationship was studied. [8]

It involved 74 students and the result revealed that stress was strongly correlated with mental health symptoms and that social support moderated and buffered the effect of stress on symptoms. [8] As well students with high levels of social support were significantly less likely to report symptoms with increasing levels of acculturative stress, compared to students reporting low levels of social support. [8] Lastly it revealed that the buffering effect of support was mainly or exclusively present when there was a high level of acculturation to American language and interpersonal associations. [8]

In another study at India, the Depression Anxiety Stress Scale (DASS 42) and the associations with their socio-demographic and personal characteristics were identified among the undergraduate medical students to assess the psychological morbidity. [9] The results revealed that more than half of the respondents were affected by depression (51.3%), anxiety (66.9%) and stress (53%). [9] Morbidity was found to be more in 5th semester students rather than students of 2nd semester. [9] Females reported higher score as compared to their male counterparts. [9] They concluded that a substantial proportion of medical undergraduate students was found to be depressed, anxious and stressed revealing a neglected area of the students' psychology requiring urgent attention. [9] Student counselling services need to be made available and accessible to curb this morbidity. [9]

A cross sectional study at Wah Medical College from September 2007 to March 2008 was performed to determine the frequency of anxiety and depression among medical students and their associations with sociodemographic and educational characteristics if any. [10] The study included 279 students, but no first year medical students were involved because they were admitted for less than 6 months. [10] This survey used a self administered Encounter Form and sociodemographic and educational characteristics included age, gender, birth order, number of siblings, monthly income, monthly expenditure on education, academic performance in professional examination, past medical and past psychiatric history, substance

abuse and family history of psychiatric illness. [10] They used Beck depression and anxiety inventory to assess the level of depression and anxiety. [10]

The result revealed that students mean age was 21.4+/-1.41 years with female preponderance (72.4%). [10] Anxiety was present in 133 (47.7%) students and depression in 98 (35.1%) students. [10] Both were found concomitantly in 68 (24.37%) students. [10] Age , gender , examination criteria dissatisfaction and overburden with test schedule were significantly associated with depression. [10] Anxiety was significantly associated with gender birth order, year of study, examination criteria dissatisfaction and overburden with test schedule. [10] As a conclusion one third of students were found to have anxiety and depression which was associated with the sociodemographic and educational factors as stated above. [10]

A cross-sectional study examined a sample of Tel Aviv University of 119 medical students was performed to assess the association between religiosity and depression or anxiety. [11] Afterwards they compared the research to similar research studies. [11] The research used the Beck Depression Inventory, the Beck Anxiety Inventory, a modified religiosity inventory, and a demographic and psychosocial variables inventory to assess the association between religiosity and depression or anxiety. [11] The research revealed no statistical significance between religiosity and depression or anxiety in the general sample but a positive significant correlation between religiosity and anxiety was found among medical students, with 29.4% of them reporting anxiety and 25.2% depression. [11] There were high rates of depression and anxiety reported by students in the first to third years (preclinical years) and there was a decrease in depression and anxiety in the fourth to sixth years (clinical years). [11] Nevertheless no higher anxiety and depression scores were noted among controls as compared to medical students. [11] In conclusion this research showed no significance between religion and depression/anxiety, but an association between religiosity and mental health could have many theoretical and practical implications and requires further investigation. [11] Similar to previous studies, the rates of depression and anxiety among Israeli medical students were comparable with those of other countries. [11] These rates are considered higher than those in the general population and emphasize the importance of alertness to mental health issues among students, especially during the early study years. [11]

Another cross –sectional study was conducted among medical students in Kaunas University of Medicine, Lithuania. [3] The aim was to evaluate the prevalence of anxiety and depression in medical students and in humanities students. [3] As well to assess the relationship between

symptoms of anxiety, symptoms of depression and Big-Five personality dimensions and vulnerability to stress in medical students. [3] The results of this research showed that symptoms of anxiety and symptoms of depression were prevalent in medical students (43% and 14%, respectively) and in humanities students (52% and 12%, respectively). [3] In medical students the score on the HADS anxiety subscale and the score on the HADS depression subscale correlated negatively with the score on the TIPI Emotional Stability scale and correlated positively with the score on the SVS. [3] They concluded that the symptoms of anxiety and depression are prevalent in medical students and in humanities students. [3] Severity of symptoms of anxiety and symptoms of depression in medical students is negatively related to emotional stability and positively related to stress vulnerability. [3] These researches have stated that the depressive symptoms severity, anxiety and stress severity play a major role on the international student's mental health and well-being. The studies had slightly different aims and methods than my research, but the same problems were issued. [1, 2, 3, 4, 5, 13, 16, 14, 15] The depressive symptoms severity were the highest and most common symptom experienced by the international students on these researches and not far behind was anxiety and stress severity. [6, 7, 10, 11, 17] Among all these international students the most common complaints and symptoms was mainly found between the early year's undergraduate students. [8, 9, 10, 11, 12, 20] This can attribute to the factor that adapting to the new host country and its culture, language, weather and social life is a time consuming process and only with time these international students were able to adapt and acculturate to the host country. [18, 19, 20]

## **RESEARCH METHODOLOGY AND METHODS**

The study is a cross-sectional survey conducted in Lithuanian University of Health Science. The study was carried out during October and November, 2015 among the international students of LUHS. Before handing out the questionnaires, full consent was given by the participants. Study population consisted of 200 questionnaires handed out, but only 180 students gave the questionnaires back. Sample size was therefore 180 international students from LUHS from all years of study and faculty, proportionately.

Method used was of handing out the questionnaires to international students at classes and dormitory of LUHS, in which approximately above 180 students are designated in.

Majority of last year's undergraduate students were living outside the dormitory and therefore they were handed the questionnaire during breaks of respective classes. In LUHS

there is uneven quantity of students in each year and faculty in LUHS, with higher amount of student from first, second, third and fourth year in all faculties and lower amount of students from the fifth and sixth year international students, therefore not all international students could get participated in the research and the main aim was trying to keep some kind of proportionality during the process.

It was explained to the student that participating in the study was optional and that if any questions arose regarding interpreting the questions in the questionnaire the distributor was present and available to offer assistance. The students were given all the time needed to answer the questionnaires.

Since students replied anonymously, it was clear that they would not face any repercussions if they decided not to participate.

The sociodemographic questionnaire consisted of general questions regarding the student's background, social and health status. The sociodemographic questionnaire was written in a form that would get the main information from the international students of LUHS, without violating his/her privacy.

Scales used in this research consist of 2 different questionnaires.

DASS-42 was used to assess the stress, anxiety and depressive symptoms severity.

A stressor questionnaire was used to assess the student's most stressful situations.

The DASS is a set of three self-report scales designed to measure the negative emotional states of depressive, anxiety and stress. Each of the three DASS scales contains 14 items, divided into subscales of 2-5 items with similar content.

The Depressive scale assesses dysphoria, hopelessness, devaluation of life and lack of interest/involvement.

The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect.

The Stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Subjects are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state *over the past week*.

Afterwards the answers are summed up and the result will assess the symptoms severity of the depressive, anxiety and stress by mild, moderate or severe scale. To get the best statistical result the subscales answers were summed up into Lower scores and Higher scores.

Lower scores in depressive symptoms were set for 0-17 points according DASS template. (0-17points includes normal and mild) (17+ includes moderate and severe)

Lower scores in anxiety and stress symptoms were set within, Normal and Mild ranges according DASS template.

Higher scores in depressive was set for  $\geq 17$  points according DASS template.

Higher scores in stress were set within, moderate and severe ranges according DASS template.

Higher scores in anxiety was set within, moderate, severe and extremely severe ranges according DASS template.

A stressor questionnaire was used to assess the student's most stressful situations by a Likert-scale questionnaire; a Likert-Scale is the sum of responses on several Likert items. A Likert item is simply a statement that the respondent is asked to evaluate by giving it a quantitative value with level of agreement/disagreement being the dimension most commonly used.

The first part of the Likert Scale contained common scenarios that international students of LUHS encounter during their time here and these situations were graded by their severity.

( not difficult                       somewhat difficult                       very difficult)

To get the best statistical result the subscales "not difficult" and "somewhat difficult" answers were combined into one category" and the subscale "very difficult" was left as it was. In the results I presented only the proportion of students who answered "very difficult" to corresponding statement.

Differences between proportions of students, who indicated 'very difficult' on two specific statements, were tested using Cochran's Q test. In order to avoid numerous comparisons the statement "having financial problems" were selected as reference statement, i.e. proportion of students having severe difficulties coping with financial problems was compared to the proportions of students having severe difficulties with coping to all other problems.

The second part consisted of YES/NO questions regarding the student's health, and the third part was about present and future thoughts regarding the University of LUHS.

Statistical analysis was showing the mean statistic values and its correlation with the sociodemographic findings. Statistical analyses were conducted with the SPSS version 19,1 for Windows (SPSS Inc., Chicago, IL, USA).

Correlation, regression analyses, t tests and variance analyses were performed to compare differences in DASS scores between different student groups. Tukey HSD test was used to multiple comparisons for means. Chi square test was conducted to analyze categorical data. Statistically significant differences were established when p-value was  $<0.05$

## RESULTS AND THEIR DISCUSSION

The sociodemographic parameters of study participants are presented in Table 1. The total participants (n=180) was applied the questionnaires. The average age of the participants was 22,1 years (SD=3,6), with no differences among males and females participants according age ( 22,1 ±3,6 vs 22,1 ±SD=3,7 years old., respectively, p>0.005. 61, 1% of students were studying medicine faculty.

Mostly (89, 9%) there were students participating from the pre-clinical years of all faculties. There were 40(22, 2%) students from first year faculties, 30(16, 7%) students from second, third, fourth and fifth faculties. From 6 years there were 20(11, 1%) students from medical faculty only. Due to that only medicine faculty has a 6-year programme.

Most students came from European (n=135, (75%)) and Asian (n=45, (25%)) continents. From Europe the leading countries was Spain, Sweden, Poland, England, Germany and Ireland. From Asia the leading countries was Lebanon, Israel, India, Pakistan, South Korea and Sri Lanka.

The student's ethnicity where from Europe (n=93, (51, 7%)) and Asia (n=87, (48, 3%)), but the amount of international students having an Asian ethnicity was more than students stating country of resident as Asia countries. This is due to the fact that many international students at LUHS that reside in European countries actually have an Asian ethnicity.

Many students are born or have been living in European countries for most of their life and they intend to build their lives there, but having an Asian ethnicity.

In the relationship status (77, 8%) students where in a single relationship, 24(13, 3%) students where in a relationship, 12(6, 7%) students were engaged and 4(2, 2%) students were married. It's common for international students to not have any serious commitment relationships, because after the studies everyone usually goes back to their home countries and that results in a separation of the relationship. Many tend to avoid this by dodging any serious relationship.

Reason of study choice was very broad and there was no single common answer. 53(29, 4%) students chose own preference, 75(41, 7%) students answered having better job facilities, 34 (18, 9%) students answered family preference and 18(10%) students chose failing to qualify for other department.

Attending odontology, medicine and pharmacy faculty are usually high demanded faculties and usually are not a faculty you choose as a second option, therefore there was probably low amount of students that chose 'failing to qualify for other department'.

As we can see the majority did answer having better job facilities and that's not a surprising choice among the international students in LUHS, because medicine, odontology and pharmacy faculties are worldwide known faculties that result in promising jobs.

With today's increasing competition market, the students are trying to form their future to be as safe as possible by investing in good educations that are in high demand.

The international students answered very positive upon the question regarding their academic performances and the answers were moderate (n=25, (13, 9%)) good (n=101, (56, 1%)) and very good (n=54, (30%)). This can be a sensitive question even with full confidentiality and many tend to choose a better looking answer, but otherwise it shows that the students are fully concentrated on their studies and fulfilling their academic goals. By succeeding in the academic level the depression and anxiety diminishes and students tend to get a feeling of great accomplishments which improves their self-esteem.

Students opinions on their health status was answered as, normal health by 102(56, 6%) students, 36(20%) students answered good health, 41(22.7%) students answered bad health and 1(0, 5%) student answered very bad health.

This question showed that international students are having health issues and this is an important aspect upon the depression and anxiety. Usually the health start to shift badly and afterwards follows the negative emotions of depression, anxiety and students with a worse health tend to have a lower self-esteem and impairing on their social adaptation process, which worsens the acculturative stress.

The family economic situation was stated good by 109 (60, 5%) students and moderate by 71(39, 4%) students. Economy isn't an easy situation for all students and many students are getting big debt from their governments, but for the students it's an investment in their education and future live.

The Lithuanian language skills upon the studies wasn't a fair question because the majority of the questionnaires was given to pre-clinical year students that haven't been in the country long enough to learn this new language and therefore the results weren't as good as it could have been. 90 (50%) students chose poor, 90(50%) students chose moderate language skills. Language is a big factor for the acculturation process and many students tend to fail in this part due to the big differences between their own native language and the Lithuanian language, nevertheless having poor Lithuanian language skills gives a bad outcome.

Communication difficulty doesn't have a good outcome regarding the acculturative stress and the international students won't adapt to the new culture. By not being able to communicate with the native people the barrier will grow between the international students and the host

country. Thus this leads to misunderstanding between the native host and the students, which may lead to frustrations, isolations, depression and anxiety among the students.

48(26, 7%) students have had a past depressive/anxiety disorder at LUHS and 132 (73, 3%) students hadn't had any past depressive/anxiety disorder at LUHS.

150(83, 3%) students didn't have any family history of depressive/anxiety, and 30(16, 7%) students had a family history of depressive/anxiety.

Almost one third of the students studying in LUHS have had a past depressive/anxiety disorder at LUHS which is a higher number than students having a family history of depressive/anxiety. Usually a family history of depressive/anxiety correlates with students having a past depressive/anxiety but in this case it didn't. It might be due to the fact that students don't want to involve family problems in researches and questionnaires.

Students habits with smoking and drinking was a big problem. Majority of students do smoke and drink alcohol and their answer was as follows. Regarding drinking, 73 students answered I did but I quit, 36 students answered several times per month, 41 students answered several times per week and 30 students answered several times per day. Regarding smoking, 24 students answered that never smoked, 110 students answered several times per month and 46 students answered several times per week.

Smoking and drinking alcohol is right now a popular trend upon the young generation and many start this habit during their University life and continue with it later as a life style. This can relate to the fact that the smoking and drinking habits are very common among LUHS international students due to the stress from the academic overload. As well smoking before and after exams has become a popular life style and many students tend to "party-smoke" which means that they only smoke during night events, as a social habit. In today's world alcohol is a customary drink served and drunken during many party-events or in any social gathering, thus these two habits usually go hand in hand which we can see from the results. Students answers regarding what they do to calm down from studies where varied with 41 students participating in sport activities, 52 students hanging out with friends, 47 students spending time with family, 20 student's practices religion and 20 students spends some quality alone time. These result and all options where selected almost equally. Therefore, all options as talking with friends/family at home, sport activities, meeting up with friends and religious practices/activities had equal outcomes.

This shows that students are very unique and like to calm down from studies in their own ways, many students probably use all those options as techniques to calm down and there isn't

really a major single answer, but it's an overall process to calm down from studies involving friends, family, sports and religion.

***Sociodemographic parameters of study population (Table 1)***

Statements	Results n (%), n= 180
<u>Gender</u>	
Male	95(52, 7%)
Female	85(47, 3%)
Age years (Mean $\pm$ SD):	Average age: 22,1 $\pm$ 3,7
<u>Major Study</u>	
Medicine Faculty	110(61, 1%)
Odontology Faculty	60(33, 3%)
Pharmacy Faculty	10(5, 5%)
<u>Study Year</u>	
First year	40(22, 2%)
Second-Fifth year	30(16, 7%)
Sixth year	20(11, 1%)
<u>Country of residency</u>	
European	135(75%)
Asian	45(25%)
<u>Ethnicity:</u>	
European	93(51, 7%)
Asian	87(48, 3%)
<u>Relationship status</u>	
Single	140(77, 8%)
In a relationship	24(13, 3%)
Engaged	12 (6, 7%)
Married	4(2, 2%)
<u>Reason for study choice</u>	
Own preference	53(29, 4%)
Failing to qualify for other department	75(41, 7%)
Family preference	34 (18, 9%)
Having better job facilities	18(10%)
<u>How are your academic performances</u>	
Very good	54 (13, 9%)
Good	101(56, 1%)
Moderate	25(30%)
<u>General health status</u>	
Normal	102(56, 6%)
Good	36(20%)
Bad	41(22.7%)
Very bad	1(0, 5%)
<u>Economic situation of the family</u>	
Good	109(60, 5%)
Moderate	71(39, 4%)
<u>Lithuanian language skills</u>	
Poor	90(50%)
Moderate	90(50%)

<u>Did you have any past depressive/anxiety disorder?</u>	
Yes	48(26, 7%)
No	132(73, 3%)
<u>Do you have any family history of depressive/anxiety?</u>	
Yes	30(16, 7%)
No	150(83, 3%)
<u>Do you smoke?</u>	
-No, never had	24(13, 3%)
-Yes, several times per month	110(61, 1%)
-Yes, several times per week	46(25, 5%)
<u>How often do you consume alcoholic beverages?</u>	
-I did but I quit	73(40, 5%)
-Several times per month	36(20%)
-Several times per week	41(22, 8%)
Several times a day	30(16, 67%)
<u>What do you do to calm down from studies?</u>	
Sport activities	41(22, 8)
Meeting up with friends	52(28, 9)
Talking with friends and family at home	47(26, 1%)
Spending some alone time	20(11, 1%)
Religious practices/activities	20(11, 1%)

Out of total 180 participants, the answers of the DASS questionnaire results were summed up and the mean average value for each subscale (stress, depressive and anxiety symptoms severity) was counted and by using the DASS scoring template the results could be evaluated as normal, mild, moderate, severe and extremely severe depressive/anxiety/stress in table 2

*Anxiety, depressive and stress symptoms severity among international students of LUHS.  
(Table 2)*

	<b>Depressive symptoms severity</b> <u>Mean (SD)</u>	<b>Anxiety symptoms severity</b> <u>Mean (SD)</u>	<b>Stress symptoms severity</b> <u>Mean (SD)</u>
<u>Students</u>			
Male(n <sub>1</sub> =95)	<b>17,00</b> (4,00)	<b>8,51</b> (1,93)	<b>20,13</b> (5,27)

Female(n <sub>2</sub> =85)	<b>18,19</b> (4,00)	<b>9,62</b> (4,02)	<b>21,76</b> (4,03)
t-value	<b>-2,01</b>	<b>-2,42</b>	<b>-2,32</b>
p-value	<b>0,046</b>	<b>0,017</b>	<b>0,019</b>
<u>Severity</u>	Moderate	Mild	Moderate

Result in table 2 shows us that between the females there was moderate depressive symptoms severity 18, 19 (4, 00), mild anxiety symptoms severity 9, 62 (4, 02) and moderate stress symptoms severity 21, 76 (4, 03) that was statistically significant ( $p < 0, 05$ ).

Among the males there was moderate depressive symptoms severity 16, 99 (4, 01), mild anxiety symptoms severity 8, 51 (1, 93) and moderate stress severity 20, 13 (5, 27) that was statistically significant ( $p < 0, 05$ ).

The evaluation of this result is that the international students LUHS of females the depressive symptoms severity, anxiety and stress symptoms severity are slightly higher than the males. Result tells us that the problems of depressive symptoms, anxiety and stress symptoms are a fact among the students LUHS, but the severity of them are yet not as severe. That's why it's time to act before these numbers escalates and the university should have an aim to reach normal values of the depression, anxiety and stress.

***Assessing different thoughts students have had during their time studying at LUHS. (Table 3)***

<b>Statements</b>	<b>YES</b>	<b>NO</b>
<b>Wanted to take deans leave (1 year break)</b>	57, 7%	42, 2%
<b>Wanted to change University</b>	62, 7%	37, 2%
<b>Wanted to drop out</b>	43, 3%	56, 6%
<b>Wanted to change your major study subject</b>	13, 3%	86, 6%
<b>Feeling not smart enough for the academic work you are expected of</b>	41, 1%	58, 8%
<b>Feeling of not using your</b>	70, 5%	29, 4%

<b>study time efficiently</b>		
<b>Worrying about future job opportunities</b>	10%	90%

These facts shows the thoughts students have had during their time at LUHS.

Humans have all kind of thoughts and many are not significant enough to actually take into consideration, but some are and that's why it's hard to make a big conclusion out from this. Nevertheless, the students did show a tendency to worry a lot and had major thoughts of changing University or taking a year of. This shows that students do feel both overwhelmed and need a break from all the studies or that they feel mistreated or misunderstood at the current University. The students didn't worry about future jobs and didn't think of changing faculty and that's because they already are studying for jobs that are in demand and well beneficial in the future.

The most common selected answer was " feeling of not using your study time efficiently, which was answered YES by 127 students. This is a problem among any students and due to bad study planning and organization the students often feel that he or she isn't using their free time beneficially.

Table 4 reports on the severity prevalence of depressive, anxiety and stress symptoms severity scores based on score ranges (normal, mild, moderate, severe and extremely severe) from the modified DASS manual, among age groups of the students

***Distribution of depressive, anxiety and stress symptoms severity based on score ranges from the modified DASS manual, among age groups of the students. (Table4)***

Subscale	Students age	Lower scores	Higher scores	$\chi^2$	p-value
Depressive symptoms severity	All	48,3	<b>51,6</b>	70,484	<0,0001
	≤22	21,9	78,1		
	>22	26,4	14,7		
Anxiety symptoms severity	All	52,2	<b>47,8</b>	62,725	<0,0001
	≤22	77,1	22,9		
	>22	17,3	82,7		
Stress	All	12,8	<b>76,2</b>	26,731	<0,0001

symptoms	≤22	1,9	91,1		
severity	>22	28,0	61,3		

Table 4 shows that there is a difference among anxiety, stress and depressive symptoms severity distribution among younger and older student groups that is statistically significant ( $p < 0,0001$ ). **Higher scores of depressive and anxiety symptoms severity** exist among 2/4 of the international students, according to the results.

**Higher scores of stress symptoms severity** exist among 3/4 of the international students, according to the results.

***Investigation of stressor symptoms severity experienced by international students at LUHS. (Table 5)***

*With the proportion of students who answered "very difficult" to the statements provided below.*

Statements	All students	
	%	p-value*
Language (Lithuanian)	<b>24,4</b>	<b>&lt;0,0001</b>
New environment and social differences (culture)	11,1	1,000
Being apart from family and friends from home	<b>70,0</b>	<b>&lt;0,0001</b>
Having a hard time making new friends	9,4	1,000
Having financial problems (ref.)	2,8	1,000
Pressure from University	15,0	0,297
Passing your studies	<b>21,7</b>	<b>0,001</b>
Retakes/missing class	<b>5,5</b>	<b>&lt;0,0001</b>
Finding apartment/Hostel room	15,6	0,200
Dealing with the University life	<b>29,4</b>	<b>&lt;0,0001</b>
Achieving your goals	<b>29,3</b>	<b>&lt;0,0001</b>
Cochran's Q test: Q; degrees of freedom, p-value	422,3; 10; $p < 0,0001$	

(ref.) - reference variable for multiple comparisons

\* p-value from pairwise comparison. Each proportion is compared to the proportion of students who answered "very difficult" to the statement about financial problems

Table 5 shows us that the proportion of students, who answered "very difficult" was obtained on statements, Language (Lithuanian), Being apart from family and friends from home,

Passing your studies, Retakes/missing class, Dealing with the University life and Achieving your goals was statistically significant form those ” having financial problems”.

We can conclude that the most stressful situations international students were dealt upon were, Language (Lithuanian), Being apart from family and friends from home, Passing your studies, Retakes/missing class, Dealing with the University life and Achieving your goals.

As described earlier the language is an important tool to overcome the barrier between culture differences and when having such high difficulties with the native language students will automatically encounter problems with adapting and living situations during their time at LUHS.

*Assessing health issues among the international students at LUHS. (Table 6)*

<b>Statements</b>	<b>YES</b>	<b>NO</b>
<b>Has your weight changed in an undesirable way during your studies</b>	64, 4%	35, 5%
<b>Have you been more sick during your studies</b>	50, 5%	49, 5%
<b>Have you had troubles sleeping during your studies</b>	75, 5%	24, 4%
<b>Have you been able to control your emotions during your studies</b>	65, 5%	34, 4%
<b>Have you been experiencing more headaches/migraines during your studies</b>	78, 8%	21, 1%
<b>Do you feel more tired, fatigue during your studies</b>	68, 8%	31, 1%
<b>Do you have a good appetite</b>	73, 8%	26, 1%

These facts tell us that the major health issues encountered by the international students LUHS where undesirable weight change, sleep disturbances, headaches/migraines and general fatigue. The appetite was described “good”, usually students tend to start over-eating during the student life and therefore students encounter weight gain.

Troubles sleeping, headaches/migraines and general fatigue are common health issues experienced by students all over the globe due to the student lifestyle and academic overload. This does connect with the second part of the Likert scale, regarding the student’s thoughts during their time at LUHS. When having bad health issues there is a tendency for students to want to rest from everything and take a year of as a rehabilitation of their own.

With the sleeping problems the students are therefore feeling that they aren’t using their time efficiently and thus leading to anxiety and fear of not having time to finishing all the tasks given.

By not being able to finish the given task at time, students start to worry about passing the studies, which was commonly experienced by students when answering the first part of the Likert scale. Thus we can see how the different parts of the Likert scale interconnects with each other and shows how the emotions, health issues and thoughts of the students interferes with the daily difficult situations encountered at LUHS.

***Relationship between mean score of depressive, anxiety, stress symptoms severity and students’ socio- demographic characteristics. (Table7)***

Sociodemographic factor	<b>Depressive symptoms severity</b> <u>Mean (SD)</u>	<b>Anxiety symptoms severity</b> <u>Mean (SD)</u>	<b>Stress symptoms severity</b> <u>Mean (SD)</u>
<u>Age</u>			
17-22(n1=113)	<b>18,99</b> (2,53)	<b>8,42</b> (1,26)	<b>22,84</b> (2,84)
23+(n2=67)	<b>15,54</b> (4,84)	<b>9,90</b> (4,51)	<b>18,19</b> (5,58)
t value	<b>6,21</b>	<b>6,21</b>	<b>7,321</b>
p-value	<b>&lt;0,0001</b>	<b>&lt;0,0001</b>	<b>&lt;0,0001</b>
<u>Gender</u>			
Male(n1=95)	<b>17,00</b> (4,00)	<b>8,51</b> (1,93)	<b>20,13</b> (5,27)
Female(n2=85)	<b>18,19</b> (4,00)	<b>9,62</b> (4,02)	<b>21,76</b> (4,03)
t-value	<b>-2,01</b>	<b>-2,42</b>	<b>-2,32</b>

p-value	<b>0,046</b>	<b>0,017</b>	<b>0,019</b>
<u>Study Year</u>			
I (n= 40)	<b>19,30<sup>a,b</sup></b> (3,25)	<b>7,90<sup>a</sup></b> (1,35)	<b>23,20<sup>a,b</sup></b> (3,86)
II(n=30)	<b>19,60<sup>a</sup></b> (1,22)	<b>8,27<sup>a</sup></b> (0,87)	<b>23,60<sup>a</sup></b> (1,22)
III(n=30)	<b>17,93<sup>a,b,c</sup></b> (2,32)	<b>9,13<sup>a,b</sup></b> (1,01)	<b>21,80<sup>a,b,c</sup></b> (1,99)
IV(n=30)	<b>16,40<sup>c,d</sup></b> (1,52)	<b>10,00<sup>a,b</sup></b> (1,05)	<b>20,20<sup>b</sup></b> (1,52)
V(n=30)	<b>14,47<sup>d</sup></b> (4,45)	<b>8,87<sup>a,b</sup></b> (2,91)	<b>17,07<sup>c</sup></b> (5,43)
VI(n=20)	<b>16,80<sup>b,c,d</sup></b> (7,52)	<b>11,10<sup>b</sup></b> (7,88)	<b>17,70<sup>c</sup></b> (8,32)
F-value	<b>8,81</b>	<b>4,04</b>	<b>13,04</b>
p-value	<b>&lt;0,0001</b>	<b>0,002</b>	<b>&lt;0,0001</b>
<u>Residency</u>			
Europe(n=135)	<b>17,39</b> (4,13)	<b>9,20</b> (3,46)	<b>20,81</b> (4,86)
Asia(n=45)	<b>18,04</b> (3,75)	<b>8,53</b> (1,83)	<b>21,16</b> (4,56)
t-value	<b>-0,94</b>	<b>1,24</b>	<b>-0,41</b>
p-value	<b>0,35</b>	<b>0,218</b>	<b>0,68</b>
<u>Ethnicity</u>			
European (n=93)	<b>17,53</b> (4,72)	<b>9,08</b> (3,55)	<b>20,39</b> (5,43)
Asian (n=87)	<b>17,59</b> (3,17)	<b>8,99</b> (2,66)	<b>21,13</b> (4,00)
t value	<b>-0,09</b>	<b>0,19</b>	<b>-0,614</b>
p-value	<b>0,92</b>	<b>0,85</b>	<b>0,54</b>
<u>Relationship status</u>			
Single (n=140)	<b>17,76<sup>a</sup></b> (3,38)	<b>8,74<sup>a</sup></b> (1,56)	<b>21,57<sup>a</sup></b> (3,59)
In Relationship(n=24)	<b>18,17<sup>a</sup></b> (6,27)	<b>9,75<sup>a</sup></b> (6,33)	<b>19,42<sup>a,b</sup></b> (8,03)
Engaged (n=12)	<b>15,67<sup>a,b</sup></b> (4,25)	<b>11,17<sup>a</sup></b> (5,75)	<b>18,00<sup>a,b</sup></b> (5,97)
Married (n=4)	<b>12,5<sup>b</sup></b> (4,73)	<b>8,50<sup>a</sup></b> (4,43)	<b>15,00<sup>b</sup></b> (4,76)
F-value	<b>3,40</b>	<b>2,78</b>	<b>5,59</b>
p-value	<b>0,019</b>	<b>0,042</b>	<b>0,001</b>
<u>General health status</u>			
Normal(n=102)	<b>17,47</b> (3,18)	<b>8,98</b> (2,51)	<b>20,73</b> (4,61)
Good(n=36)	<b>18,00</b> (2,08)	<b>9,11</b> (1,12)	<b>21,78</b> (2,23)
Bad(n=42)	<b>17,38</b> (6,50)	<b>9,10</b> (5,14)	<b>20,57</b> (6,51)
F-value	<b>0,278</b>	<b>0,053</b>	<b>0,772</b>

p-value	<b>0,758</b>	<b>0,967</b>	<b>0,464</b>
<u>Past anxiety/depressive disorder</u>			
Yes (n= 48)	<b>17,67 (3,56)</b>	<b>9,29 (3,26)</b>	<b>21,63 (4,06)</b>
No (n= 132)	<b>17,51 (4,21)</b>	<b>8,94 (3,10)</b>	<b>20,64 (5,01)</b>
t-value	<b>0,222</b>	<b>0,665</b>	<b>1,29</b>
p-value	<b>0,824</b>	<b>0,507</b>	<b>0,221</b>
<u>Family history of depressive/anxiety</u>			
Yes(n=31)	<b>16,97 (4,92)</b>	<b>7,87 (2,47)</b>	<b>19,74 (6,44)</b>
No(n=149)	<b>17,68 (3,83)</b>	<b>9,28 (3,21)</b>	<b>21,14 (4,34)</b>
t-value	<b>-0,891</b>	<b>-2,293</b>	<b>-1,488</b>
p-value	<b>0,374</b>	<b>0,023</b>	<b>0,256</b>
<u>Reason of study choice</u>			
own preference(n=53)	<b>17,70 (5,14)</b>	<b>10,08<sup>a</sup> (4,99)</b>	<b>21,25 (4,93)</b>
having better job facilities(n=75)	<b>16,91 (3,61)</b>	<b>8,69<sup>a,b</sup> (1,85)</b>	<b>20,08 (4,66)</b>
family preference(n=34)	<b>18,06 (2,00)</b>	<b>8,94<sup>a,b</sup> (1,23)</b>	<b>21,24 (4,12)</b>
failing to qualify for other department. (n=18)	<b>18,98 (4,71)</b>	<b>7,56<sup>b</sup> (1,89)</b>	<b>22,67 (5,66)</b>
F-value	<b>1,512</b>	<b>3,745</b>	<b>1,724</b>
p-value	<b>0,213</b>	<b>0,012</b>	<b>0,164</b>
<u>Academic performance</u>			
moderate(n=25)	<b>17,52 (4,94)</b>	<b>8,56 (1,87)</b>	<b>21,04 (4,51)</b>
good(n=101)	<b>17,62 (3,07)</b>	<b>8,75 (1,67)</b>	<b>20,75 (4,52)</b>
very good(n=54)	<b>17,44 (5,12)</b>	<b>9,78 (5,06)</b>	<b>21,11 (5,42)</b>
F-value	<b>0,035</b>	<b>2,238</b>	<b>0,11</b>
p-value	<b>0,965</b>	<b>0,11</b>	<b>0,896</b>
<u>Economic situation</u>			
Good (n=109)	<b>17,69 (4,26)</b>	<b>9,30 (3,73)</b>	<b>20,95 (4,84)</b>
Moderate (n=71)	<b>17,35 (3,68)</b>	<b>8,62 (1,87)</b>	<b>20,82 (4,73)</b>
t-value	<b>0,545</b>	<b>1,431</b>	<b>0,188</b>

p-value	<b>0,587</b>	<b>0,154</b>	<b>0,851</b>
<u>Lithuanian language skills</u>			
Poor (n=90)	<b>18,98</b> (2,58)	<b>8,36</b> (1,29)	<b>22,76</b> (3,36)
moderate(n=90)	<b>16,13</b> (4,69)	<b>9,71</b> (4,15)	<b>19,04</b> (5,26)
t-value	<b>5,039</b>	<b>-2,959</b>	<b>5,638</b>
p-value	<b>&lt;0,0001</b>	<b>0,004</b>	<b>&lt;0,0001</b>
<u>Smoking</u>			
I did but I quit (n=73)	<b>15,67<sup>a</sup></b> (3,4)	<b>9,18</b> (2,00)	<b>18,52<sup>a</sup></b> (4,61)
Yes, several times/month (n= 36)	<b>20,11<sup>b</sup></b> (0,67)	<b>8,0</b> (0,00)	<b>24,0<sup>b</sup></b> (0,00)
Yes, several times/week (n=41)	<b>17,90<sup>c</sup></b> (5,88)	<b>9,32</b> (5,03)	<b>21,71<sup>b</sup></b> (5,51)
Yes, several times/day (n=30)	<b>18,60<sup>b,c</sup></b> (2,30)	<b>9,53</b> (3,78)	<b>21,87<sup>b</sup></b> (4,30)
F-value	<b>13,088</b>	<b>1,739</b>	<b>14,577</b>
p-value	<b>&lt;0,0001</b>	<b>0,161</b>	<b>&lt;0,0001</b>
<u>Alcohol</u>			
Never	<b>19,08<sup>a</sup></b> (1,86)	<b>8,42</b> (1,02)	<b>22,17</b> (4,57)
Several times per month	<b>16,98<sup>b</sup></b> (3,67)	<b>8,89</b> (1,81)	<b>20,36</b> (4,19)
Several times per week	<b>18,13<sup>a,b</sup></b> (5,29)	<b>9,70</b> (5,48)	<b>21,52</b> (5,98)
F-value	<b>3,385</b>	<b>1,611</b>	<b>1,944</b>
p-value	<b>0,036</b>	<b>0,203</b>	<b>0,146</b>
<u>Calming down activities</u>			
Sports activities	<b>17,90</b> (5,60)	<b>9,85</b> (5,77)	<b>20,68</b> (5,47)
Friends time	<b>17,96</b> (3,40)	<b>8,69</b> (1,58)	<b>21,65</b> (3,90)
Family time	<b>17,40</b> (3,12)	<b>8,94</b> (1,76)	<b>21,23</b> (3,60)
Religion time	<b>17,70</b> (2,18)	<b>9,20</b> (1,51)	<b>21,20</b> (3,69)
Alone time	<b>16,00</b> (4,98)	<b>8,30</b> (1,98)	<b>18,30</b> (7,57)
F-value	<b>0,972</b>	<b>1,156</b>	<b>1,941</b>
p-value	<b>0,424</b>	<b>0,333</b>	<b>0,106</b>

Means for groups in homogeneous subsets are denoted by the same letter (<sup>a,b,c,d</sup>) (Tukey HSD test).

Table 7 showed that there is a higher mean depressive and stress symptoms severity, that are statistical significant in young age group (17-22) compared to old age group (23+).

(mean depressive and stress = 18,99 and 22,84 in young groups) ( $p < 0,0001$ )

(mean depressive and stress = 15,54 and 18,19 in old groups.) ( $p < 0,0001$ )

This was supported by table 4.

There is a higher mean anxiety symptoms severity value, that is statistical significant in older age group (23+) compared to younger age group (17-23)

(mean anxiety = 8,42 in young age group, mean anxiety 9,90 in old age group) ( $p = 0,002$ )

This was supported by table 4.

Females have higher mean score of depressive, anxiety and stress symptoms severity compared to males which is statistically significant according the p-values in table 7, but the p-values among the genders where almost equal to 0,05.

(male mean depressive= 17,00 and female mean depressive= 18,19) ( $p = 0,046$ )

(male mean anxiety= 8,51 and female mean anxiety = 9,62) ( $p = 0,017$ )

(male mean stress= 20,13 and female mean stress= 21,76) ( $p = 0,019$ )

Pre-clinical years showed higher depressive and stress symptoms severity mean values compared to clinical years that are statistically significant. Clinical year students showed higher anxiety symptoms severity mean values compared to preclinical years that are statistically significant. (See table 7)

There is a statistically significant difference between the relationships groups that is, married students has a lower depressive symptoms severity mean scores (12, 5) compared to single (17, 76) and in relationship (18, 17) students. Married students have a lower stress symptom severity (15, 00) mean score compared to only single students (21, 57.)

There was significant difference in mean depressive symptom severity score between married students and single & in relationship students.

There was significant difference in mean stress symptoms severity score between married and single students.

No differences in mean anxiety symptoms severity score between all relationship groups, there was no difference in mean depressive symptoms severity score between single, in relationship and engaged students. No difference in mean stress symptoms severity score between married single and in relationship students. (See table 7)

Students that had no past family history of depressive/anxiety showed higher anxiety mean values compared to students that had a past family history of depressive/anxiety that was statistically significant, but only for anxiety.

(mean value no= 9,28 and mean value yes= 7,87) (p=0,023)

Only students that failed to qualify to other department, under reasons of study choice showed a significant different mean anxiety symptoms severity score than students that selected own preference as study choice.

(mean value own preference=10,08 and mean value failing to qualify=7,56) (p=0,012)

No difference between the other answers of study reason.

Students with poor Lithuanian language showed significantly different mean depressive, anxiety and stress symptoms severity score compared to students that had moderate Lithuanian language skills.

(mean depressive for poor = 18,98 and mean depressive for moderate= 16,13) (p<0, 0001)

(mean anxiety for poor = 8,36 and mean anxiety for moderate= 9,71) (p=0,004)

(mean stress symptoms for poor= 22,76 and mean stress symptoms for moderate= 19,04)

(p<0, 0001)

No smokers showed a significantly lower mean depressive and stress symptoms severity score compared to smokers. (mean depressive symptoms score 15,67, mean stress symptoms score 18,52) (p<0, 0001)

No drinkers showed significantly different mean depressive symptoms severity score compared only to drinker several times per month. (See table 7)

There was no statistical significant difference in depressive, anxiety and stress symptoms severity levels between student's ethnicity and residency, general health status, past anxiety/depressive disorder, academic performance, economy status and calming down activities.

Some significant results revealed between the sociodemographic and the depressive, anxiety and stress symptoms severity. In which the younger generation (n1) suffered more from depressive, anxiety and stress symptoms severity compared to the older generation (n2).

Due to that the younger generation has probably less experience on studying abroad, leaving their family nest and safe zone compared to the older generation. That's why the older generation are more "resistant" to the depressive, anxiety and stress symptoms severity. As well maturity comes with aging and that helps in different life situations.

Regarding the study years, within the pre-clinical year's students had more depressive, anxiety and stress symptoms severity compared to the clinical year's students.

Married students had lower depressive and stress symptoms compared to in relationship and single students. This shows that being married gives a significant comfort that eases the symptoms and helps students in their life.

Students with a family history of past depressive/anxiety showed a lower anxiety level than students without a family history. This shows that the family history didn't act as an important factor in distress symptoms, nevertheless family question are very private and students might have answered this question dishonestly.

Students that failed to qualify to their main faculty showed a lower mean anxiety symptoms severity score than students choosing by their own preference. This shows that students didn't worry that they didn't get their main faculty and this can be due that all the different faculties have good outcomes.

Students with poor Lithuanian skills revealed higher depressive and stress symptoms severity than students with moderate Lithuanian skills. This shows that the language has a major influence on the student's emotions and being better in the language helps to adapt to the culture and country which in turn decreases the negative emotions.

Students that didn't smoke had lower stress and depressive symptoms severity than smokers and this shows that habits as smoking is more of a distractive than curative method to decrease the distress symptoms. Students that drink moderate (several times/month) showed less depressive symptoms severity mean score than non-drinkers. Alcohol in moderate amount can actually help students to forget and ease their depression.

## CONCLUSION

1. **Evaluating** the sociodemographic characteristics, the most common picture of an international student at LUHS was a female/male person from Europe but with an Asian ethnicity. Is single, with a good academic result, poor or moderate Lithuanian language skills. Has normal health, no history of depression or anxiety, but a smoker and alcohol user.
2. **Higher depressive and anxiety** symptoms severity was reported by about half of the international students of LUHS.
3. **Higher stress** symptoms severity was reported by 3/4 of the international students of LUHS. The **most common** situations that lead to acculturative stress among international students were, Language (Lithuanian), Being apart from family and friends from home,

Passing your studies, Retakes/missing class, Dealing with the University life and Achieving your goals.

4. **Relationship** between the sociodemographic parameters and severity of stress, anxiety and depressive symptoms showed that,

- Females students reported slightly higher depressive, anxiety and stress symptoms severity than males.

The younger age students reported more depressive, anxiety and stress symptoms severity than the older students.

- The pre-clinical year's student's reported more depressive, anxiety and stress symptoms severity compared to the clinical year's students.

-Married students reported lower depressive and stress symptoms severity compared to in relationship and single students.

-Students with a past family history of depressive/anxiety reported less severe symptoms of anxiety than those students without any history of depressive/anxiety.

-Students that failed to qualify to their main faculty reported a lower anxiety symptoms severity than students choosing by their own preference.

- Students that didn't smoke reported lower stress and depressive symptoms severity than smokers.

- Students that drink alcohol reported lower depressive symptoms severity than non-drinkers

- Students with poor Lithuanian Language skills revealed higher depressive and stress symptoms severity compared to students with moderate language skills.

## **Practical recommendations**

Many would assume that the students are too lazy to adapt to their new life and therefore the host country gets a harsh picture of the international student. This negativity will only cause further damage to the international student's acculturation process, because the student will separate himself/herself even further from this new culture, language and their loneliness problems will just grow.

Recommendation for both students and the university is to get involved together in this manner and try to help to understand each other's problem. Students easily get burned out during their years of studies and the University can help them by offering psychiatry consultations to aid the student's physiological and psychological health and mental being. By that the students will feel that they are being helped and the depressive, anxiety and stress severity might decrease.

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## ANNEX

# Sociodemographic questionnaire

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*Encircle, underline or write your answer*

**Gender:** Male   
Female

**Age:** ..... (years)

**Major Study:**

Medicine Faculty   
Odontology Faculty   
Pharmacy Faculty   
Other:

**Study Year:**

**Country of residency:**

**Ethnicity:**

African  
Asian  
European  
Other\* please write:

**Number of siblings in your family:**

**Relationship status**

Single  
In a relationship  
Engaged  
Married

**Reason for study choice**

Own preference  
failing to qualify for other department  
Family preference  
having better job facilities  
Other (parent profession, advice by someone outside):

**How are your academic performances?**

Very good (9-10)  
Good (7-8)  
Moderate  
Bad  
Very bad

**According to your opinion- your general health status is:**

Very bad      Bad      Normal      Good      Very good

**Economic situation of the family:**

Good  
Moderate  
Poor

**Lithuanian language skills**

Good  
Moderate  
Poor

**Did you have any past depressive/anxiety disorder?**

Yes  
No

**Do you have any family history of depressive/anxiety?**

Yes  
No

**Habits:**

**Do you smoke?**

-No, never had  
-I did but I quit  
-Yes, several times per month  
-Yes, several times per week  
-Yes, several times per day  
-Other

**How often do you consume alcoholic beverages?**

-Never have  
-Several times per month  
-Several times per week  
-Every day  
-Other:

**What do you do to calm down from studies?**

Sport activities  
Meeting up with friends  
Talking with friends and family at home  
Spending some alone time  
Religious practices/activities

## Likert Questionnaire

### 1. How difficult was each of these situations to deal with at this University?

Grade from 1-3, (1 = not difficult)(2= somewhat difficult) (3= very difficult)

Write the number next to the question

#### Language (Lithuanian)

not difficult                       somewhat difficult                       very difficult

#### New environment and social differences (culture)?

not difficult                       somewhat difficult                       very difficult

#### Being apart from family and friends from home?

not difficult                       somewhat difficult                       very difficult

#### Having a hard time making new friends?

not difficult                       somewhat difficult                       very difficult

#### Having financial problems?

not difficult                       somewhat difficult                       very difficult

#### Pressure from University?

not difficult                       somewhat difficult                       very difficult

#### Passing your studies?

not difficult                       somewhat difficult                       very difficult

#### Retakes/missing class?

not difficult                       somewhat difficult                       very difficult

#### Finding apartment/Hostel room?

not difficult                       somewhat difficult                       very difficult

#### Dealing with the University life

not difficult                       somewhat difficult                       very difficult

#### Achieving your goals?

not difficult                       somewhat difficult                       very difficult

#### Other difficult issues:

### 2. Have you ever had these thoughts during your time here?

Wanted to take deans leave (1 year break)?

YES/NO

Wanted to change University?

YES/NO

Wanted to drop out?

YES/NO

**Wanted to change your major study subject?**  
YES/NO

**Feeling not smart enough for the academic work you are expected of?**  
YES/NO

**Feeling of not using your study time efficiently?**  
YES/NO

**Worrying about future job opportunities?**  
YES/NO

**3. Health issues? (Circle the answer)**

**Have your weight changed in an undesirable way during your studies? YES/NO**

**Have you been more sick during your studies? YES/NO**

**Have you had troubles sleeping during your studies? YES/NO**

**Have you been able to control your emotions during your studies? YES/NO**

**Have you been experiencing more headaches/migraines during your studies? YES/NO**

**Do you feel more tired, fatigue during your studies? YES/NO**

**Do you have a good appetite? YES/NO**

