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Department of Clinical Dentistry
Stress among dental students
A survey from Arkhangelsk, Russia
—
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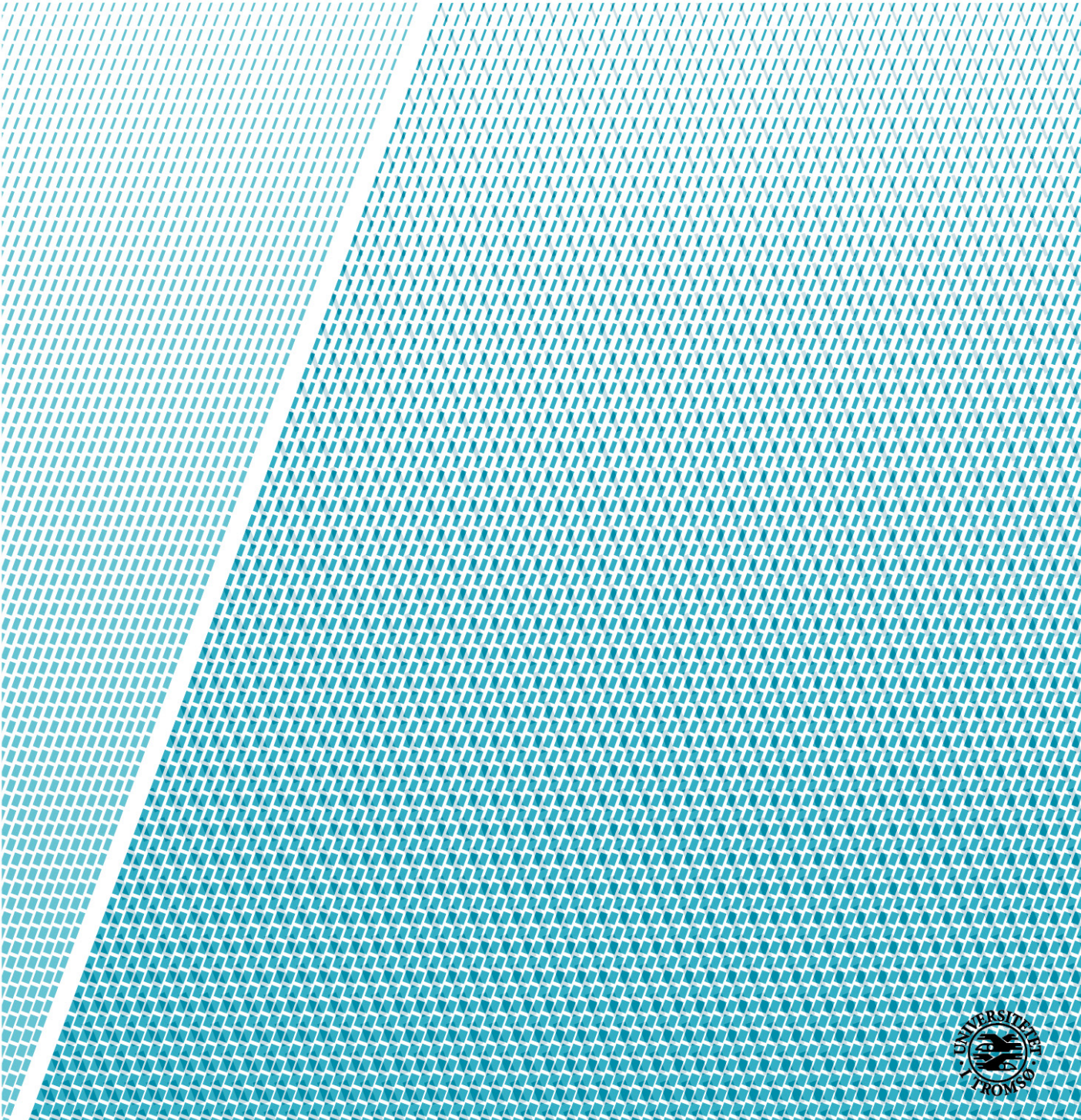*Master thesis in odontology, May 2017*

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1. Acknowledgement

By virtue of the University of Tromsø, in conjunction with my 8th semester of studying Dentistry, I was given the opportunity to study abroad through an exchange programme with Northern State Medical University in Arkhangelsk, northwest Russia. The main purpose of this programme was research; gaining a broader understanding of the topic in this study.

The collaboration between the two universities in Tromsø and Arkhangelsk did not only give me a unique opportunity to develop myself professionally, but also to grow as a human being.

There have been numerous people involved in this exchange programme experience. I would like to thank the University of Tromsø and Northern State Medical University in Arkhangelsk for their cooperation and support, and for making this exchange possible. Thank you to all those who worked to make this opportunity viable, and to all the volunteers who spent their spare time to make my time in Arkhangelsk as incredible as it turned out to be. The warmth and kindness they all extended me, made me feel welcome and at home during my stay in Arkhangelsk.

I would especially like to thank Sergei Drachev (PHD student), for his invaluable groundwork and research, which has provided me with the collected data needed to complete my master thesis.

I extend a special thanks to Linda Stein, my supervisor: for her knowledge and experience with SPSS; for being constantly available; for taking time out of her schedule to assist and support me; for a wonderful cooperation.

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Without any of you, this would not have been possible.

Birgitte Myrvold

2. Abstract

Aim
The purpose of this study was to assess the level of perceived stress in undergraduate dentistry students at Northern State Medical University, in Arkhangelsk, northwest Russia. All participants in this study were aged from 18-25 years old.

Material and methods
A self-administered structured questionnaire was issued to collect personal background information; including socio-economic and socio-demographic data (appendix 1). To evaluate stress among the randomly selected students, a dental environmental stress scale (DES) was used, where the scale ranged from 1 "not stressful at all" to 4 "very stressful" (appendix 2). The students were asked to assess the different forms of stress they had been exposed to during the previous month. Top six stressors were used as dependent variables on six different regression models.

Results and conclusion
The questionnaire was distributed to 500 dental students and the response rate was N=420 (84%), whereof 69% of the participants were female and 31% were male. Participants ranged in age from 18 to 25, with the mean being 21 years (+ - 1.92).
"Pressure of performance" and "workload" was the stress factors that received the highest DES scores. Gender, education status, and additional paid work were significant predictors of stress in several models. Educational status predicted stress in all models. Future studies should focus on exploring methods for stress management among dental students.

3. Introduction

The word stress was first introduced to medicine and psychology in the 40s (1), and is a psychological response to mental, emotional or physical exposures. Stress is a natural part of day-to-day life, but although some degrees of stress can take on a protective adaptive role and is considered good for you (2), chronic stress could result in serious conditions such as anxiety, depression, and even burnout (3). The symptoms associated with stress can be categorised within three main groups: altered behaviour, psychological reactions, and physiological reactions. (4)

Several studies have been carried out subjecting stress and how it affects undergraduate students. Stress levels are found to be higher among healthcare students compared to the general population (5), and dentistry students are even more likely to experience stress compared to other fields of medical study (6). The dentistry curriculum demands that students obtain theoretical knowledge and clinical practice skills in parallel, including patient care and understanding (7). The theoretical material students are required to learn over a short amount of time is immense, and during their preclinical time, students are introduced to an array of complex dental equipment. More so, during their clinical practice, students are required to perform irreversible procedures, often on fearful patients. All these factors help illustrate why dental education is considered such a stressful environment, and coincides with sources of stress identified and discussed in epidemiological studies. (3, 8, 9)

The two most common means of evaluation of stress among undergraduates in dentistry is the Dental Environmental Stress (DES) questionnaire and the Perceived Stress Scale (PSS) (7)

It is worth noting that students from different socio-demographic backgrounds and socio-economic positions might perceive stressful situations and stress factors differently. This ties into the main hypothesis of this study; that levels of stress will differ among undergraduates in dentistry, based on gender, socio-economic conditions, and stage in their course of study.

4. Material and Methods

Study area
The study was conducted in Arkhangelsk, at the Northern State Medical University (NSMU), which was founded in 1932 to train medical personnel; twenty-six years later, in 1958, the university established their faculty of dentistry.

Study population
60-80 dentistry students are currently enrolled each year at the NSMU, most of whom are students from the European side of North-Russia; from the Vologda and Murmansk regions, in addition to both the city and region of Arkhangelsk. In this cross-sectional study, all dentistry undergraduates were invited to complete the survey. For sample size the following assumptions were applied; confidence level 95%, expected prevalence 50%, precision 5 %. The recommended sample size was minimum 384.

The students were briefed on the subject of the survey and invited to engage through a presentation held by the main researcher during one of their lectures, as approved by the university administration. The students who were willing to participate signed an informed consent form, as a part of the self-administered structured questionnaire.

The survey was anonymous in the sense that the participants did not have to give their names, although they were asked to enter their phone number if they were inclined to take part in further studies. To encourage further participation, the students were informed that a price of 2500 NOK would be handed out randomly to one of those who provided their number. The phone numbers would only be accessible to the main researcher, and would not be used for any commercial benefit.

Only a randomly selected portion of the undergraduates would be eligible for the additional surveys, and throughout the process students could withdraw from the study for any given reason at any given time, and receive no further calls.

Inclusion criteria for the final survey

- A dentistry undergraduate currently enrolled at NSMU
- In general good health, with no serious illness

All participants were provided with relevant information regarding the study and gave oral and written informed consent of participation. The study was approved by the Ethical committee of the NSMU, Russia.

Data presentation and statistical analysis

Of the 500 dental students who received the questionnaire 420 answered, which gave a response rate of 84 %.
The self-administered structured questionnaire contained 14 questions, some of which requested personal background information including socio-economic and socio-demographic data (appendix 1). Out of these 14 questions, we chose seven for closer examination and further research. First descriptive statistics were completed of these seven collected "groups" (table 1), followed by a chi-square test where the result was presented in per cent and $P < 0.05$.

To evaluate stress among the students, a Dental Environmental Stress (DES) questionnaire was handed out(appendix 2). Garbee developed and validated the questionnaire in 1980. Since then it's used widespread and translated into several languages (10).
The DES-questionnaire contained 38 questions, where the participants could range their perceived stress on a scale from 1 to 4: 1 being "not stressful at all", and 4 being "very stressful" (appendix 2). The participants were asked to only consider the stress they had experienced over the past month.

Further, the 38 questions in the DES questionnaire were categorised into seven subcategories (table 2). To increase readability, mean and SD of the 420 respondents were calculated. The six questions with the mean highest score out of all the 38 questions were presented in table 3.

Finally, a standard multiple regression analysis was conducted, to examine the possibility of a correlation between the dependent and the independent variables. Top six stressors were used as dependent variables in six different regression models. The results are presented in P-value and Beta in table 4.

All the data was analysed in IBM SPSS version nr. 24 for Mac, and the methods are described in the SPSS Survival manual (11).

5. Results

The questionnaire was distributed to 500 dental students and the response rate was N=420 (84%). The gender distribution of the respondents are 69% female to 31% male, and the age distribution is 18-25 years, where the average is 21 years. (+ - 1.92)

Table 1. Description of study participants presented in % (n=420)

	Total	Male	Female	P-value[a]
Education status				
Preclinical dentistry	45	46	44	n.s
Clinical dentistry	55	54	56	
Scholarship				
Yes	55	43	61	0.001
No	45	57	39	
Marital status				
Single	82	83	82	n.s
Not single	18	17	18	
Nationality				
Russian	93	91	94	n.s
Other	7	9	6	
Living area during childhood[b]	71	73	70	n.s
Urban	29	27	30	
Rural				
Current housing situation				
Living without parents	83	82	83	n.s
Living with parents	17	18	17	
Additional paid work				
Yes	20	26	18	0.047
No	80	74	82	

[a] obtained from chi-square test

[b] n=417

Table 1: Presents the background of the focus selection in this study. The total indicates the difference in per cent between the participants in each category. Interestingly, the table shows that scholarships and grants are being held by a greater extent of women than men, yielding a significance of P<0.05. In addition to this, the table also shows that men are more likely to be employed than women (P <0.05). The relation between single and not single, and between the respondents that live without their parents and those living with their parents, is fairly evenly distributed between both genders. Education status is divided into two part; preclinical and clinical dentistry, where preclinical dentistry includes 1st and 2nd year students whom have not had any clinical experience, and clinical dentistry constitutes of 3rd to 5th year students, whom are currently doing their clinical experience.

Table 2. Dental environment stress scores (n=420)

	Mean	(S.D.)
Self-efficacy beliefs	**2.14**	**0.966**
Lack of confident to be a successful dental student	2.26	0.947
Lack of confident to be a successful dentist	2.33	0.975
Insecurity concerning professional future	2.28	0.970
Considering entering some other fields of work	1.70	0.973
Faculty and administration	**1.45**	**0.720**
Atmosphere created by clinical faculty	1.36	0.647
Amount of cheating in dental school	1.50	0.807
Rules and regulation in dental school	1.39	0.652
Expectation of dental school and what is in reality it is like	1.68	0.877
Lack of input into the decision making process of dental school	1.60	0.758
Attitude of school towards female dental students	1.25	0.581
Relations with members of the opposite sex	1.49	0.803
Discrimination due to race, class status or ethnic group	1.14	0.501
Inconsistency of feedback on work between different instructors	1.67	0.862
Workload	**2.48**	**0.971**
Amount of assigned classwork	2.51	0.959
Lack of time for relaxation	2.54	1.015
Lack of time to do assigned classwork	2.39	0.938

Patient treatment	**1.90**	**0.871**
Lack of cooperation by patient in their home care	1.65	0.762
Responsibilities for comprehensive patient care	2.12	0.881
Patient being late or not showing for their appointment	2.00	1.037
Working on patients with dirty mouths	1.84	0.802
Clinical training	**2.13**	**0.801**
Difficulty in learning clinical procedures	2.19	0.812
Difficulty in learning precision manual skills required in preclinical and laboratory work	2.06	0.790
Performance pressure	**2.50**	**0.95**
Difficulty of classwork	2.51	0.854
Competition for grades	1.87	0.945
Examination and grades	3.20	0.945
Fear of failing course or year	2.97	1.031
Complete graduation requirements	2.22	0.941
Fear of being unable to catch up if behind	2.51	1.018
Receiving criticism about work	2.20	0.916
Other/personal factors	**1.62**	**0.828**
Having children at home	1.36	0.783
Marital adjustment problems	1.80	0.875
Financial responsibilities	2.15	0.959

Forced postponement of marriage or engagement	1.50	0.857
Personal physical health	1.91	0.896
Necessity to postpone having children	1.39	0.749
Lack of home atmosphere in living quarters	1.85	0.979
Conflict with partner over career decision	1.33	0.708
Having a dual role of spouse/parent and dental student	1.28	0.642

Table 2: List of the 38 questions from the DES questionnaire. The questions are divided into categories for ease of examination. Also listed is a calculated mean illustrating how high the participants scored each question. SD is relatively low for all questions, which indicates all responses as homogenous.

"Examination and grades" is the question that yields the highest score with a mean of 3.30, while "performance pressure" (2.50) and "workload" (2.48) are the two groups scoring highest on the DES-scale among the average. The questions with the average lowest scores are categorised under the following groups: "other/personal factors" (mean of 1.62) and "faculty and administration" (mean of 1.45).

Table 3. Top 6 stress factors

Items	Des- subscale	Mean	S.D	N
Examination and grades	Performance pressure	3.20	0.945	406
Fear of failing course or year	Performance pressure	2.97	1.031	407
Lack of time for relaxation	Workload	2.54	1.015	411
Difficulty of classwork	Performance pressure	2.51	0.854	414
Amount of assigned classwork	Workload	2.51	0.959	420
Fear of being unable to catch up if behind	Performance pressure	2.51	1.018	403

Table 3: An overview of the top 6 stress factors is presented in table 3. The items, i.e. questions, with the highest mean were collected from table 2 and arranged in rows. Performance pressure dominates, relating to 4 out of the 6 questions in the table, whereas workload relates to two. Furthermore, the table shows that "fear of failing a year or a course" has the highest SD and lowest response rate with N= 407. The last three items in the table all have a mean of 2.51, and with a relatively low SD, we can conclude that the answers among the mean is homogenous.

Table 4. Multiple regression models for DES - the top stressors.

Models	R^2 (%)	Predictors	p-value	Beta
Examination and grades	8.3			
		Gender	**0.005**	**0.139**
		Education status	**0.000**	**0.226**
		Scholarship	0.171	0.067
		Marital status	0.734	0.017
		Living area during childhood	0.230	0.059
		Housing	0.590	0.027
		Additional paid work	0.387	0.044
Fear of failing course or year	14.3			
		Gender	**0.000**	**0.185**
		Education status	**0.000**	**0.252**
		Scholarship	0.389	0.041
		Marital status	0.242	0.056
		Living area during childhood	0.768	0.014
		Housing	0.430	0.038
		Additional paid work	**0.014**	**0.122**
Lack of time for relaxation	13.7			

		Gender	0.012	0.120
		Education status	**0.000**	**0.364**
		Scholarship	0.745	0.015
		Marital status	0.411	0.039
		Living area during childhood	0.064	0.088
		Housing	0.570	0.027
		Additional paid work	**0.002**	**0.153**
Amount of assigned classwork	33.7			
		Gender	0.954	0.002
		Education status	**0.000**	**0.571**
		Scholarship	0.523	0.026
		Marital status	0.599	0.022
		Living area during childhood	0.868	0.007
		Housing	0.554	0.025
		Additional paid work	0.840	0.009
Difficulty of classwork	19.3			
		Gender	0.061	0.086
		Education status	**0.000**	**0.413**
		Scholarship	0.969	0.002
		Marital status	0.359	0.042

		Living area during childhood	0.974	0.002
		Housing	0.603	0.024
		Additional paid work	0.534	0.030
Fear of being unable to catch up if behind	10.9			
		Geder	0.064	0.090
		Education status	**0.000**	**0.321**
		Scholarship	0.586	0.027
		Marital status	0.735	0.017
		Living area during childhood	0.452	0.037
		Housing	0.615	0.025
		Additional paid work	0.227	0.062

Table 4: Presents the results of the standard multiple regression analysis conducted of the top six stress factors. Education status is the predictor that is prominent in its relevance to all six of these factors, P <0.05. The difference between genders was significant in three of the top stressors: "examination and grades", "fear of failing course or year", and "lack of time for relaxation"; whereas additional paid work was only relevant in the two latter factors.

Beta is a way of identifying the strongest unique contribution to explaining the dependent variable (11). The higher the value the greater the impact of the predictor variable. In this case, education status has the highest Beta (0.571) when related to the question regarding "amount of assigned classwork". R-square is presented in per cent, with the highest number being the strongest explanatory model. R^2 varied from 8.3 % (examination and grades) to 33.7 % (amount of assigned classwork).

6. Discussion

This study, as the first of its kind in Northwest Russia, indicates the stress levels of undergraduate dentistry students. The stress factors that scored the highest on the DES-scale (table 2) among the average participant were related to performance pressure and workload. The personal background factors "education status", "gender" and "additional paid work", showed significant to several of the appointed stress factors. The findings can be seen in connection with earlier studies done in other countries. (12,14)

Education status
The multiple regression analysis (table 4) concludes that "education status" is a prominent predictor by being significant in conjunction with all six of the questions in the top 6 stressors (table 3): "examination and grades", "fear of failing course or year", "lack of time for relaxation", "amount of assigned classwork", "difficulty of classwork", and "fear of being unable to catch up if left behind".

Previous studies suggest a difference in levels of stress depending on year of study, and past results show a considerable change in mean between the academic cohorts (P=0.003), where the stress levels were significantly higher among students in their fifth year. The average number of academic workload in the second and fifth years of study compared to the first, third, and fourth year was substantial (P <0.05)(12). It is noteworthy that the literary study "*Stress amongst dental students: a systematic review*" (13) presents "examination and grades" as the academic source with the highest frequency associated with stress among dentistry undergraduates. It is foreseeable then, that the very same factor was the survey's highest scoring question with a mean of 3.30. Furthermore, the study point out that pre-clinic undergraduates rate exams and fear of failure as most stressful, whereas students currently in their clinical training rate this as their highest source of stress. (13)

When it comes to exams, it is possible that stress accumulates along with the fear of failure, as an exam determines whether a student will progress their course of study or have to redo a year. Combined with challenging reading lists and curriculums, vast amounts of information to be learnt in a short amount of time, and grades that indicate theoretical proficiency, but also acts as a means of competitive comparison.

The differences between the stressors affecting the various dentistry cohorts, is also highlighted in an article Garbee wrote in 1981 (8). First year students gave far higher ratings to 9 out of the 38 questions in the DES-score, including on "amount of classwork", "difficulty of classwork", "exams and grades", and "lack of time for relaxation". These are the same questions peaking in significance in our results (table 4).

According to studies made in west India (14), the stress levels increase over the five years of a dentistry degree. The two first years of preclinical courses prove to be given the mildest rates, with the ratings developing to moderate and high during the years with introduction to clinical

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courses. Thus, it can be derived that the transition to clinical practice could be an additional stress factor, causing a spike in perceived levels of stress, as the academic pressure is already a substantial.

Gender
As shown in table 4, the difference between the genders were significant in three out of the six top stress factors: "examination and grades", "fear of failing course or year", and "lack of time for relaxation". In our presented selection, there were considerably more women than men whom received scholarships, grants, or similar financial support for their education, and men were more likely than women to have work outside their studies. Both findings were significant, but the reason behind this has not been a focus in many of the previous studies on the subject of stress in dentistry students.

However, what we do see in these studies is that the average among women score higher on perceived level of stress than men in practically all areas (8,12,13,14). Interestingly enough it is in one of these studies where it was discovered during a correlations analysis that men have a significant disparity between psychological disturbance and all the five stress domains the study addressed (living, personal, education, academic, and clinical), while female students only had a significance between psychological disturbance and stress levels in the clinical domain. (14)

It is hard to conclude why women on average score higher than men on stress, at the same time as men have a significant variation of the aforementioned stress domains by correlations analysis. It could be that women are more affected by other unmentioned sources of stress that influences their studies in addition to the sources outlined in the studies.

In a literary study carried out on stress among dentistry students the divide in stress levels of men and women is not apparent, but the literature also indicate that women are more stressed during their two first years of study (pre-clinical), whereas men tend to be more stressed during the years of clinical practice. (13)

Additional paid work
Additional paid work proved to be significant relating to the questions "fear of failing course or year" and "lack of time for relaxation". (Table 4)

In a systematic review, the personal factors, "financial issues" is rated as the top stressor with the highest frequency in countries where education is self-financed (i.e. USA and Canada). "Lack of time for relaxation" also receives a high score in these countries(13). A degree in dentistry is a demanding and time-consuming education, where lectures, seminars, and clinical work easily take up as much as 40 hours a week (13). An undergraduate in dentistry with a part-time job would not have much time for relaxation, not to mention any time for reviewing coursework, even though it is encouraged and often expected. One can draw lines between perceived stress and the fear of falling behind on coursework and

consequently having to repeat a year, especially since this would also mean a significant economic setback for the student.

Based on the representative selection in our study, one would expect higher reports of stress among the male respondents, as they on average have a higher percentage of employment during their studies, and a lower percentage of financial support in the form of grants or scholarships, etc. However, drawing conclusions of men dominating the results cannot be advised.

In a cross-sectional study it is vital to have a high enough response rate in order to represent the population accurately. The calculated sample size was a minimum of 384 dentistry students. Thus a turnout of 420 participants is sufficient to ensure valid results.

There was a 38% higher response from women than men in this study, which is not unexpected, as it is reflective of earlier studies. (12,15) The selection was primarily students from Arkhangelsk and the surrounding area. Only 7% of responses coming from non-Russian nationals. With the exception of gender distribution, the selection was relatively homogenous, and the response age of 18 through 25 is typical compared to selections in similar studies. (15). Surveys used were demographic background variables and a DES (dental environmental stress) score, which are both common means of data collection in such studies, and DES is also commonly used to rate stress levels among participants. (8,14)

A vulnerability of the DES-score used in this study was that the undergraduates surveyed were provided with a 5th response option "n/a" (not applicable). Considering that the 1st and 2nd study levels at Northern State Medical University in Arkhangelsk do not encompass clinical training or patient treatment, this would offset several of the questions relating to those particular scenarios, and thus "not applicable" answers were programmed as "missing". Another weakness of the study is the reliance on self-reported collected data. The actual level of stress could thus be higher than reported, as the participants could feel inclined to set themselves in a better light by downplaying their level of stress.

Based upon our results and comparisons to other studies, we can confirm our hypothesis declaring that levels of stress will differ among undergraduates in dentistry, based on gender, socio-economic conditions, and stage in their course of study. The preceding studies focusing on stress among dentistry students have been carried out in countries all across the globe. Differences like economy and culture could play a part in the variations and fluctuations of the results between these studies and ours of Arkhangelsk, Russia. Future studies should focus on exploring methods for stress management among dental students.

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Appendix 1

QUESTIONNAIRE A
"Oral health and occupational stress in undergraduate students

Give only one answer to each question if no other information is given

Your phone number: [   ]

Section A
Personal background information

1. Gender
1 ☐ male
2 ☐ female

2. Year of birth?
[   ]

3. Year of undergraduate medical education?
1 ☐ 1st year
2 ☐ 2nd year
3 ☐ 3rd year
4 ☐ 4th year
5 ☐ 5th year
6 ☐ 6th year

4. In which topic/direction are your studies?
1 ☐ Medicine
2 ☐ Dentistry
3 ☐ other, please specify:
[   ]

5. Your education at NSMU is:
1 ☐ free
2 ☐ fee-based

6. Do you receive scholarship/funds to support your studies at NSMU?
1 ☐ yes
2 ☐ no

7. What is your marital status?
1 ☐ single
2 ☐ living with a spouse/partner
3 ☐ living with friends
4 ☐ other

8. What is your nationality?
1 ☐ Russian
2 ☐ other, please specify
[   ]

9. Where did you live during childhood and adolescence?
1 ☐ urban area
2 ☐ rural area

10. Where did you finish school?
1 ☐ Arkhangelsk
2 ☐ Arkhangelsk region
3 ☐ other, please specify:
[   ]

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11. Where do you stay during your student years (this year)?

1 ☐ in a hostel
2 ☐ in a flat/house without parents
3 ☐ in a flat/house with parents
4 ☐ other, please specify:

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12. Do you have additional paid work during your student years (this year)?

1 ☐ yes
2 ☐ no
3 ☐ difficult to answer

13. How many hours do you watch TV on a daily basis

1 ☐ less 0.5 hour
2 ☐ 0.5-1 hour
3 ☐ 1-2 hours
4 ☐ 2-3 hours
5 ☐ more than 3 hours

14. How many hours do you use internet on a daily basis

1 ☐ less 0.5 hour
2 ☐ 0.5-1 hour
3 ☐ 1-2 hours
4 ☐ 2-3 hours
5 ☐ more than 3 hours

Appendix 2

Section D – only applicable for dental students

Dental Environment Stress (DES)
*Please indicate how stressful the following events were to you for **the past month** by circling on a scale below*

	Not stressful at all	Somewhat stressful	Quite stressful	Very stressful	Nonapplicable item
	1	2	3	4	5
44 Amount of assigned classwork	o	o	o	o	o
45 Lack of cooperation by patients in their home care	o	o	o	o	o
46 Difficulty of classwork	o	o	o	o	o
47 Responsibilities for comprehensive patient care	o	o	o	o	o
48 Competition for grades	o	o	o	o	o
49 Patients being late or not showing for their appointments	o	o	o	o	o

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		ID-number:		
50 Examinations and grades	o	o	o	o	o
51 Difficulty in learning clinical procedures	o	o	o	o	o
52 Atmosphere created by clinical faculty	o	o	o	o	o
53 Relations with members of the opposite sex	o	o	o	o	o
54 Receiving criticism about work	o	o	o	o	o
55 Difficulty in learning precision manual skills required in preclinical and laboratory work	o	o	o	o	o
56 Lack of confidence to be a successful dental student	o	o	o	o	o
57 Lack of confidence in self to be a successful dentist	o	o	o	o	o
58 Lack of time for relaxation	o	o	o	o	o
59 Amount of cheating in dental school	o	o	o	o	o
60 Rules and regulations of the school	o	o	o	o	o
61 Working on patients with dirty mouths	o	o	o	o	o
62 Lack of home atmosphere in living quarters	o	o	o	o	o
63 Completing graduation requirements	o	o	o	o	o
64 Having children in the home	o	o	o	o	o
65 Marital adjustment problems	o	o	o	o	o
66 Expectations of dental school and what in reality it is like	o	o	o	o	o
67 Lack of input into the decision-making process school	o	o	o	o	o
68 Fear of failing course or year	o	o	o	o	o
69 Insecurity concerning professional future	o	o	o	o	o
70 Financial responsibilities	o	o	o	o	o
71 Lack of time to do assigned school work	o	o	o	o	o
72 Considering entering some other field of work	o	o	o	o	o
73 Forced postponement of marriage or engagement	o	o	o	o	o
74 Personal physical health	o	o	o	o	o
75 Attitudes of school toward women dental students	o	o	o	o	o
76 Necessity to postpone having children	o	o	o	o	o

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77 Conflict with partner over career decision	o	o	o	o	o
78 Discrimination due to race, class status, or ethnic group	o	o	o	o	o
79 Having a dual role of wife/mother or husband/father and dental student	o	o	o	o	o
80 Inconsistency of feedback on your work between different instructors	o	o	o	o	o
81 Fear of being unable to catch up if behind	o	o	o	o	o