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Study of stress and depression among students specialty "nurse" in the medical university of Plovdiv before the session.

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Abstract

Purpose: To assess the level of stress, the sources of stress and the spread of depression among students of ''nurse'' specialty Medical University-Plovdiv.
Methods: Cross-sectional survey in 2017, featuring 60 freshman and 40-students from ''nurse'' specialty in the third course. The relationship between the variables is assessed using chi-square test with a significance level of $p<0.05$. The statistical analysis in the survey includes descriptive statistic (average value and standard deviation), chi-square test for evaluation of the correlations between the stress-level and depression and demographic dates (correlations coefficient of Pearson and Kendal) and t-test (Welch two sample t-test).
Results: Moderate to very severe stress is observed in 78.4% of the surveyed students. Depressive symptoms were also 54.7% of respondents (mild depression in 41.7%, moderate in 11.5%, severe in 1.4%). There is no significant difference in depression between the first and third-course nurses ($p=0.1613$) and in men and women ($p=0.85$).
Conclusion: Academic-related stressors are a major cause of stress to students in the both courses. We recommend the conducting of further surveys on stress and depression in all specialties of medical universities in Bulgaria and the implementation of programs for managing stress.

Keywords: Nurse student specialty, Stressors, Depression, Becks inventory.

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Introduction

According to a lot of studies is the teaching in the medical universities with considerable stress connected [1-5]. The distress by “nurse” student specialty shows in many ways like burnout, anxiety, depression [6-10].

Significant survey of stress by Compton et al. [2] and the related therefore depression during the medical education covers the student in different medical universities and shows startle dates about the psychical status of the students. A lot of studies in different countries have estimated that the depression among the students in a medical university appears often ant is in a more heavy stage than that among people of the same age in the common population [11-17].

The high level of stress and depression could drive to abuse with substances, suicide thoughts and lead to commit suicide, growth of cynicism, influence of the patients care and change for the worse of the life quality [2,18-24]. The students in the medical universities suffering on depression are often thinking to break their studies [13,25].

Methods

For testing the physical health of the students in the Department of Nursing and Midwifery Care, Faculty of Public Health, MU of Plovdiv a cross-sectional survey is in 2017 carried out by 60 freshman (55 women) and 40-students from “nurse” specialty in the third course.

A questionnaire, created especially for this reason, was used. Answers on this questionnaire have been given by 90.9% from the freshman (150/165) and 75.3% by student in the third course (128/170).

To survey the stress-factors a short version of the Questionnaire for stressors with 20 questions was applied by students of “nurse” specialty [26].

The Beck depression inventory-BDI with 21 questions was applied to examine the depression. This is a reliable and valid instrument widespread used for the valuation of authority of the depressions symptoms [27].

The statistical analysis in the survey includes descriptive statistic (average value and standard deviation), chi-square test for evaluation of the correlations between the stress-level and depression and demographic dates (correlations coefficient of Pearson and Kendal) and t-test (Welch two sample t-test).

Results

From all 100 students, taking part in the survey, 98% are women, 31% have parents with medical education and 62.6% have an intimate partner. Moderate to strong stress is obtained by 78.4% from the students in the specialty "nurse", while strong and high-strong stress is from 20.1% of the respondents declared.

21.4% of the women and 3.2% of the men in this survey convey about strong or very severe stress, as statistic significant relation between stress and sex has been observed (p=0.004). But between stress and educations course a significant relation is missing (p=0.426).

Academic-related stressors are a major cause of stress. They cause strong and very severe stress to 59.7% of the surveyed students. 6 from top 10 stressors among students of "nurse" specialty in this survey are academic connected. As leading cause for stress are pointed the tests and examinations as they put to moderate or very severe stress to 84.2% of the surveyed students.

The dates analyses on depression show that the depressive symptoms are observed by 54.7% of all surveyed students. There isn't significant relation between depression and educations course (p=0.163), as between depression and sex (p=0.85). But there is a significant connection between the stress and the depression (r=0.46; p<0.001).

Discussion

The survey shows us, that moderate to severe stress was observed by 78.4% students of the "nurse" specialty. This result is similar to other investigations on stress by students in the medical universities, according that is their distress high and varies from 21 to 56% [28-31].

The dates of this survey aren't collected during the session. Therefore could the academic-related stressors cause even stronger stress, if the survey was provided right next to the examinations; the high level of academic stress could be relieved through consideration of the changes in the educational programs and loadings.

In our survey are the depressive symptoms obtained by 54.7% of the student in this specialty. This result is similar to the established in other surveys on depression, carried out abroad.

The review of the available levels shows, that the depression among the students ranges from 12 to 71%. The differences in the fixed levels of depression could be explained by the different used instruments of screening.

Comparing the results of our study with a similar study of medical students in MU-Sofia percentages 63.2% are almost the same with our 54.7% [32].

This percentage is higher than that reported in other studies of depression in students of medicine in Central and Eastern Europe.

According to the literature, the prevalence of depressive symptoms among medical students in England and English-speaking countries in Europe 6.0-66.5% [32,33].

In Central and Eastern Europe have been several studies of depression in medical students. In Poland, 56.32% of medical students are set depressive symptoms, and in Germany 34.92% [34].

According to another study, 13.1% of German medical students showed slight and 5.8% clinically significant depressive symptoms [35].

In Bosnia and Herzegovina was established mild depression at 41.4% and moderate in 17.9% of medical students [36].

In Macedonia, 10.4% of medical students had depression [37], Serbia 22.5% [38], Estonia 30.6% [39] and Lithuania 14% [40].

As in other surveys, our investigation detected association between stress and depression [29,30]. By the analysis of the possible protective and risks factors of depressions growth is an interesting relationship detected. The absence of parents with medical education correlates with depressive symptoms by students-freshmen, but similar connection is missing by students in the third course.

It is possible the children of people with medical education to be better prepared to the academic challenges of the education. Probably, bit by bit, abilities to cope with difficulties are build, which could explain the missing of correlation by the students in the third course. It is advisable to lead future surveys on the influence of family-and social support by depression.

Many from the respondents in this survey express wish to courses in psychological health and to be a mentor [31]. Their connection to the depression shows the necessarily of theirs initiation in our medical universities.

This survey hasn't shackles. The excerpt is relevant to students-freshman and third course students of "nurse" specialty in one university in the land. Therefore the results can't be generalized to all students of "nurse" specialty. With this survey we have tested only the depressive symptoms, obtained during the last two weeks. We haven't collect information to depressive episodes in the past or to family-overburden with depression.

In the present survey aren't render an account of the role of personal life-events (illness, death of family-member, marriage, birth etc.) and the role of financial problems as possible reasons to stress.

Conclusion

The dates of this survey point to necessity of initiation the programs of stress-management in to Bulgarian medical education. For more clarity we recommend to be carried out future investigations on stress and depression to students from all medical specialties in Bulgaria.

From this literature review can be concluded that the incidence of depression in medical students at the Medical Faculty of Sofia and Faculty of Public Health, MU-Plovdiv is greater than in other countries of Central and Eastern Europe.

In conducting this study, we supplement the knowledge of mental health of medical students in Bulgaria. This is the first study in Central and Eastern Europe on the role of misuse of medical students as a possible risk factor for depression. In conclusion, we recommend the introduction of prevention programs for the mental health of medical students, as well as providing access to psychological counselling and assistance.

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