

The role of the self-consciousness feelings in the pathogenesis of depression in the context of selected temperamental traits and psychological gender.

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Introduction

Structure of temperament, psychological gender and sexual orientation are recognized risk factors for mood disorders, moreover, students of medical faculties may be group particularly vulnerable of affective disorders. On the other hand, an excessively intense feeling of shame and guilt are significant symptoms of depression. The aim of this study is to evaluate the relationship of the structure of temperament, psychological gender, sexual orientation and an excessively feeling of shame and guilt and symptoms of depression among medical students.

Materials and methods

201 students of medical faculty of Medical Department and laboratory diagnostics faculty of Pharmaceutical Department of Medical University of Łódź in academic year 2021/2022 participated in the study. Main inclusion criterion was informed consent. Students were asked to complete a battery of questionnaires, comprising: Beck Depression Inventory (BDI-II), Inwentarz do Oceny Płci Psychologicznej (IPP), which had been designed on the basis of Bem Sex Role Inventory (BSRI), Formal Characteristic of Behaviour – Temperament Inventory (FCZ-KT(R)) – revised version, Moral Feelings Scale, Kinsey Scale and author's questionnaire on sociodemographic data. Statistical analysis were made using STATISTICA 13.1 (TIBCO Software 2022). Nominal variables were given as numbers with appropriate percentage whereas continuous variables as medians together with the interquartile range (IQR). Continuous variables were analysed using the Mann–Whitney U test or the Kruskal-Wallis test with post-hoc analysis (Dunn's test), depending on the number of compared groups. Nominal variables were analysed using Fisher's test and correspondence analysis. Correlation coefficients were calculated with the Spearman's rank test. p levels lower than 0.05 were considered statistically significant.

Results

BDI score suggestive of clinically significant depressive symptoms (≥ 17 points), was reached by 30,85% of the students (N=62). BDI score which can differentiate moderate from severe depression (≥ 27 points), was reached by 9,95% of the students (N=20). BDI score correlated with Perseverance (R=0,257; p=0,001), Emotional reactivity (R=0,297; p=0,001), Briskness (R=-0,225; p=0,001), Rrhythmicity (R=-0,197; p=0,005) and Activity (R=-0,159; p=0,024). A statistically significant differences in increased symptoms of depression were found among undifferentiated and androgynous gender students (p=0,039) and bisexual women and heterosexual men (p=0,003). BDI score correlated with feelings of shame (R=0,3; p<0,001) and guilt (R=0,4; p<0,001). The gender difference was found for BDI score (women median = 12,00 (IQR 7,00-20,00); men median = 8,00

(IQR 3,00–14,00); $p = 0.003$). Feelings of shame and guilt correlated with Perseverance ($R_{AWS}=0,497$; $p<0,001$; $R_{AGW}=0,373$; $p<0,001$), Emotional reactivity ($R_{AWS}=0,499$; $p<0,001$; $R_{AGW}=0,409$; $p<0,001$), Briskness ($R_{AWS}=-0,175$, $p=0,013$; $R_{AGW}=-0,179$, $p=0,011$), Endurance ($R_{AWS}=-0,191$, $p=0,010$; $R_{AGW}=-0,205$, $p=0,004$) and Activity ($R_{AWS}=-0,185$, $p=0,009$; $R_{AGW}=-0,179$, $p=0,011$). A statistically significant differences in increased feelings of shame and guilt were found among sex-typed women and sex-typed men ($p_{AWS}<0,001$; $p_{AGW}=0,005$) and undifferentiated and sex-typed men ($p_{AWS}<0,001$; $p_{AGW}<0,019$). A statistically significant differences in increased feeling of shame were found among bisexual women and heterosexual men ($p=0,033$) and heterosexual women and heterosexual men ($p=0,022$). The gender difference was found for an increased feelings of shame (women median =15,00 (IQR 12,00-17,00); men median 11,00 (IQR 9,00-15,00); $p=0,003$). A statistically significant difference was demonstrated in the presence of cross-sex typed gender in bisexual persons. Based on the analysis of correspondence, a relationship was observed between the cross-sex typed gender defined and bisexual orientation. Androgynous, undifferentiated and sex-typed genders are more related to heterosexual orientation.

Conclusion

The exacerbation of depressive symptoms is higher in the population of medical students than in the general population. The increased feelings of guilt and shame are important components of the clinical picture of depression, which may affect the choice of treatment and the prognosis of patients. Moreover, the temperament structure significantly influences the intensity of depression symptoms, guilt and shame. Also social and cultural factors play a role in the development of depression and dysfunctional shame. Guilt may be a more specific symptom of depression than feeling of shame.