## Streszczenia z I Międzynarodowej Studenckiej Konferencji Neuropsychiatrycznej, Warszawa 2017

# Abstracts from the I International Neuropsychiatric Students' Conference, Warsaw 2017

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#### 1. GENDER BIAS TOWARDS TRANSGENDER BY MEDICAL STUDENTS

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Trustee: Maja Polikowska-Herman, MD, PhD

**Introduction:** The term *gender* arose with the realization that for individuals with conflicting or ambiguous biological indicator of sex (i.e., "intersex"), the lived role in the society and/or the identification as male and female could not be uniformly associated with identity as female or male at variance with their uniform set of classical biological indicator. Thus gender is used to denote the public (and usually legally recognized) lived role as boy or girl, man or woman, but in contrast to certain social constructionist theories, biological factors are seen as contributing, in interaction with social and psychological factors to gender development. Transgender refers to the broad spectrum of individual who transiently or persistently identify with a gender different from their natal gender [1]. Population-based data sources that estimate the percentage of adults who are transgender are very rare. The Massachusetts Behavioral Risk Factor Surveillance Survey represents one of the few population-based surveys that include a question designed to identify the transgender population. Analyses of the 2007 and 2009 surveys suggest that 0.5% of adults aged 18-64 identified as transgender (Conron 2011). The 2003 California LGBT Tobacco Survey found that 3.2% of LGBT individuals identified as transgender. Recall that the 2009 California Health Interview Survey estimates that 3.2% of adults in the state are LGB. If both of these estimates are true, it implies that approximately 0.1% of adults in California are transgender. Several studies have reviewed multiple sources to construct estimates of a variety of dimensions of gender identity. Conway (2002) suggests that between 0.5% and 2% of the population have strong feelings of being transgender and between 0.1% and 0.5% actually take steps to transition from one gender to another. Olyslager and Conway (2007) refine Conway's original estimates and posit that at least 0.5% of the population has taken some steps toward transition. Researchers in the United Kingdom (Reed et al., 2009) suggest that perhaps 0.1% of adults are transgender (defined again as those who have transitioned in some capacity). Notably, the estimates of those who have transitioned are consistent with the survey based estimates from California and Massachusetts. Those surveys both used questions that implied a transition or at least discordance between sex at birth and current gender presentation [2].

Aim of the study: The aim of the study is to identify gender bias towards transgender by medical undergraduates who are future doctors. Cultural and personal beliefs may be one of the main culprits that could contribute to the existence of discrimination and prejudice, although as a doctor, there are rules and ethical values we should follow and being impartial is one of them. Presence of discrimination and prejudice will create a hostile environment that could interfere with doctor–patient interaction and thus affecting the effectiveness of the treatment. Transgender patient, just like any other patient, should be treated equally, neutrally and with respect.

**Method:** Genderism and Transphobia Scale (GTS) developed by Hill & Willoughby in 2005 is used as mode of measurement for this study [3]. Participants are required to answer 32 questions using the 7-point scale; 1 (strongly agree) until 7 (strongly disagree). Before totaling, the scores must be reversed first with 1 equals to 7, 2 equals to 6, 3 equals to 5, 4 equals to 4, 5 equals to 3, 6 equals to 2, and 7 equals to 1 respectively. This, however, does not apply for questions number 5, 8, 23 and 26 as the original scores are used instead. The final score can range from 32 to 224 with higher scores denoting more negative attitudes towards transgender.

**Material:** This study targets the medical students (201; within the age range of 18 to 34 years old) from various countries which include Canada, Denmark, France, Germany, India, Israel, Indonesia, Iran, Malaysia, Monaco, Morocco, Netherland, Norway, Poland, Russia, Saudi Arabia, Spain, Sweden, Turkey, Uganda, United Kingdom. Both male and female students may or may not have undergone Medical Ethics and Psychiatry courses in their respective universities.

**Result:** The research took place from 1<sup>st</sup> of November to 30<sup>th</sup> of November 2016. Within this period of 1 month, 201 medical students participated with 108 females aged ranging from 19 to 29 years old (mode: 23y/o) and 93 males aged ranging from 18 to 34 years old (mode: 23y/o). Among these students, 145 (72%) of them have undergone Psychiatric course whereas the remaining 56 students (28%) have not. In addition, as for Medical Ethics course, 177 students (88%) have undergone with only 24 students (22%) reported to have not taken the course. When comparing level of bias between sex, men appeared to be more bias than women. The maximum and minimum value for men are 183 and 41 respectively with 170 (7.1% lesser than men) and 32 respectively for women. Different countries showed variable range of value reflecting the level of bias. Malaysia demonstrated the highest value at 180 while Poland and Great Britain showed the lowest value at 32 based on the GTS scale. There are a few factors that could contribute to the differences in those values (eg: religion, economy, environmental, etc.) which requires further investigation.

Figure 1.

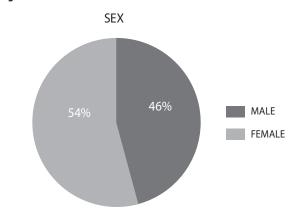


Figure 2.

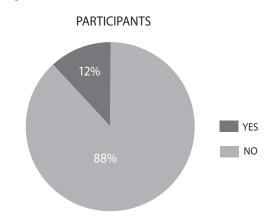


Figure 3.



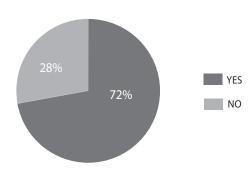


Figure 4.

#### **COMPARISON BETWEEN SEX**

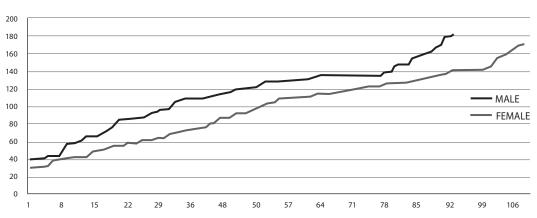
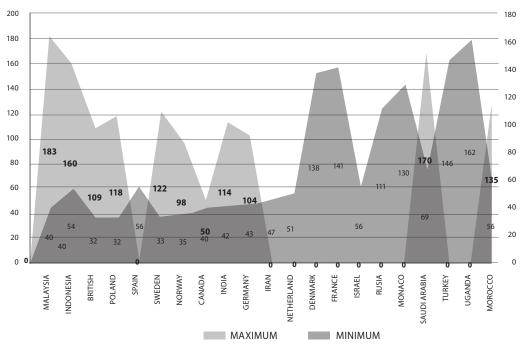


Figure 5.

#### COMPARISON BASED ON NATIONALITY



**Conclusion:** It has been proven that bias does exist in our medical society, with higher prevalence in male population than in female. Psychiatry and Medical Ethics courses showed little effect on students' perspective on transgender community. Level of bias varies among different countries and further study is required to elucidate this finding.

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2. FACTORS AFFECTING THE APPEARANCE OF SIMON'S SIGN AND HAEMORRHAGE IN ATTACHMENT OF NECK MUSCLE AT AUTOPSY IN HANGING CASES

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**Introduction and aim:** Hanging retains its preferential status each year as the method to commit suicide. This study is to determine factors affecting the appearance of particular signs of ante mortem hanging at autopsy: Simon's sign (SS) and hemorrhages in attachments of sternocleidomastoid (SCM) muscles. The presence of these signs is important to differentiate real suicidal hanging from an act of feigning a hanging.

**Method and material:** Retrospective study on 152 autopsy reports of hanging cases referred to the Department of Forensic Medicine, Medical University of Warsaw (Poland) in 2009. Factors involved: position of hanging, age, gender, height.

**Results:** In a total of 152 cases, SS was present in 25% (n = 38) of cases: aged from 16 to 78 (mode: 19, 38, 45; median: 38.5), male: 25.5% (n = 35), females: 20% (n = 3). SCM hemorrhage was noted in 61.2% (n = 93) of cases: aged from 16 to 78 (mode: 47; median: 42.5), male: 61.3% (n = 84), female: 60% (n = 9). In the age group

 $\leq$  20, the frequency of SS was about 60%, in 21  $\leq$  it was about 30% and frequency gradually decreased. The frequency of SCM hemorrhage in all age groups was about 50–60%, except in elderly  $\geq$  80 years old which was at 0%. In cases of known hanging position (n = 69), SS and SCM hemorrhage was present at 51.9% (n = 27) and 94.2% (n = 49) respectively in high-point hanging and at 11.8% (n = 2) and 88.2% (n = 15) respectively in low-point hanging. The SS wasn't observed in individuals of height  $\leq$  165 cm, while in  $\geq$  176 cm, it was noted at 40%.

**Conclusion:** No correlation between both SS and SCM with gender. SS and SCM bleeding decreased with age. The SS appearance increased with height. High-point hanging shows higher incidence of both SS and hemorrhage of SCM.

3. ASSOCIATION OF THE 2A SEROTONIN RECEPTOR (5-HT2A) POLYMORPHISM WITH ALCOHOL ADDICTION, DEPRESSIVE DISORDERS, AUTO-AGGRESSION AND SUICIDE ATTEMPTS: PROSPECTIVE STUDY IN GENDER-MATCHED POPULATIONS OF ALCOHOL DEPENDENT PATIENTS AND HEALTHY CONTROL GROUP

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The C allele polymorphism T102C (rs6313) in 5-HT2A is associated with the reduction of serotonin 2A receptor (5HT2A) expression on neuronal cell membranes. Decreased serotonin 2A receptor number results in a lower volume of serotonin neurotransmission. Low serotonin activity may develop into various pathological psychological and psychiatric conditions. The aim of the study was to explore association of T102C single nucleotide polymorphism in 5HT2A receptor in the population of alcohol-dependent patients (AD) and control groups, and to investigate this association with the spectrum of depressive disorders, auto-aggression and suicide attempts.

Study population (n = 250) included AD, n = 112 and controls, n = 138. All patients met DSM IV criteria for alcohol dependence. The participants filled 25-item questionnaire. Genomic DNA was extracted from peripheral leukocytes and analyzed for the T102C (rs6313) polymorphism using PCR-RFLP method. Statistical analyses were conducted using GraphPad Prism software with  $\leq$  0.01 P-value considered statistically significant.

We have confirmed association of C allele in 5-HT2A polymorphism in AD compared to control group [OR = 2.63](95% CI: 1.51-4.61); p = 0.0007]. This association was particularly strong in male population [OR = 5.31 (95% CI: 2.53–11.15); p < 0.0001]. Among the C allele carriers in AD group the prevalence of depressive disorders was 40,2% compared to 2,7% among the T allele only carriers. Respectively the prevalence of depressive disorders in the control group was 8,7% for the C allele carriers. 15,2% of AD carrying C allele indicated suicide attempts. None of the Tallele carriers in control group has indicated depressive disorders, auto-aggression and suicide attempts. It appears that C allele is a risk factor of various psychiatric disorders including alcohol addiction. We have also found that the C allele carriers are highly susceptible to the development of depressive disorders as well as indicate high level of auto-aggression and report suicide attempts.

## 4. SEXUAL SATISFACTION OF TRANSGENDER PEOPLE

#### Tomasz Krasuski, Armand Bajaka, Martyna Równiak

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Most transgender people do not undergo hormonal or surgical treatment. Those who strive to correct the biological sex must take into account that receiving exogenous hormones, especially those characteristic for the biologically opposite sex, can interfere with sexual function. The study aimed to compare sexual function and sexual satisfaction in the context of transgene hormone therapy. 114 transgender people participated in the study who used hormone therapy or had undergone surgery for sex reversal and those who did not follow any of the above. The survey was conducted on the basis of an Internet survey. It contained clinical and demographic questions regarding sexual dysfunction and sexual satisfaction. The results clearly indicate that initiation of hormonal therapy has reduced biological sexual functions while increasing sexual satisfaction. However, overall satisfaction is worse than for people who do not use hormone therapy.

# 5. INVESTIGATION OF LEVEL OF DEPRESSIVE TRAITS AMONG STUDENTS OF MEDICAL UNIVERSITY OF WARSAW

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**Background:** Students of medical faculties are the group threatened by multiple risk factors of development of depressive episode. According to some studies, the combination of constant stress and emotional exhaustion results in excessive frequency of depressive episodes among medical students.

**Aim:** Evaluation of broad range of depressive traits among students of Medical University of Warsaw, changes of those factors during study period and possible differences between students of different faculties.

**Material and method:** An anonymous questionnaire is being used, based on 21-item version of the Hamilton Depression Rating Scale. Questions are adapted for an assisted answering by participants. The study is conducted among students of all faculties of the University in electronic and paper form.

**Results:** 14.1% of all students were earlier diagnosed as depressive patients. Many students (37.7%) thought that any form of depressive episode should or could be diagnosed in their lifetime. Only 48.3% felt free of depressive disorders.

#### 6. NASILENIE LĘKU I CECH DEPRESYJNYCH WŚRÓD STUDENTÓW WARSZAWSKIEGO UNIWERSYTETU MEDYCZNEGO – METAANALIZA

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Opiekun: Maja Polikowska-Herman, MD, PhD

**Wstęp:** Studenci kierunków medycznych są grupą narażoną na liczne czynniki ryzyka rozwoju zarówno zaburzeń lękowych, jak i depresyjnych. Porównanie występowania i nasilenia objawów tych zaburzeń wśród studentów mogłoby umożliwić dogłębniejsze poznanie dynamiki zmian stanu psychicznego, dokładniejsze rozpoznanie ich uwarunkowań psychopatologicznych, a wreszcie podjąć działania profilaktyczne.

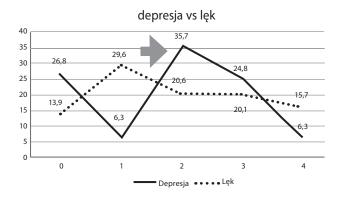
**Cel:** Ocena różnic w nasileniu lęku i cech depresyjnych wśród studentów kierunków medycznych oraz dynamiki tych zmian wraz z tokiem studiów.

**Materiał i metody:** Analiza 433 ankiet studentów kierunków medycznych dotyczących zaburzeń lękowych i 725 ankiet dotyczących zaburzeń depresyjnych.

**Wyniki:** Na wykresie pokazano rozkład (%) zaburzeń lękowych i depresyjnych według ich nasilenia u studentów wszystkich kierunków medycznych (wyniki łączne).

**Omówienie:** Do analizy przyjęto koncepcję Dana J. Steina o stopniowym przekształcaniu zaburzeń lękowych w depresyjne. Wyniki uzyskane w naszym badaniu wskazują na już dokonaną lub zaawansowaną ewolucję zaburzeń lękowych w zaburzenia depresyjne. Wskazywałoby to na wcześniejsze, być może jeszcze w okresie egzaminów wstępnych na studia, intensywne przekształcanie zaburzeń lękowych w depresyjne. Z drugiej strony studia medyczne tworzą zapewne warunki utrwalające tego typu niekorzystne bilansowanie emocji.

Rycina 1.



7. BURNOUT SYNDROME AMONG MEDICAL STUDENTS – 3 YEARS OF PROSPECTIVE STUDY AND COMPARISON BETWEEN TWO MEDICAL UNIVERSITIES (WARSAW, KOSICE)

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**Introduction:** Burnout syndrome is a state of mental and physical exhaustion, which occurs in the process of being engaged in a long, exploiting activity. It occurs among not less than 5% of overall population and it is often regarded as a condition affecting professional life. However, literature presents data that burnout syndrome characteristics have been recorded among 25% of medical students and up to 75% of post-gradual residents or physicians.

Materials and method: The research has been conducted between the years 2014–2016. In the first research, which took place in 2014, two groups of students from two different medical universities were tested for presence of burnout in relation to their 3-year educational experience (Warsaw Medical University, Poland versus Pavel Jozef Safarik University of Kosice, Slovakia). In the year 2016, both groups were tested again for presence of burnout syndrome. In all cases students were tested with Maslach Burnout Inventory (MBI) and again in October 2015 (one year difference). The study was performed in the period of 3 years, which is an equivalent of half of the time the medical studies last.

**Aim:** Aim of the research was to prove presence and progressive nature of burnout in both universities, and to compare both groups using 3 subscales of MBI (emotional exhaustion, depersonalization, satisfaction).

**Results:** The results of both universities are similar. Burnout seems to be a progressive condition during medical studies.

8. ALTERNATYWNE WYJAŚNIENIE MECHANIZMU DZIAŁANIA LEKÓW ANTYDEPRESYJNYCH – EFEKT PLACEBO

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**Uzasadnienie:** Publikowane od kilkunastu lat badania zmuszają do zmiany sposobu myślenia o mechanizmie działania leków antydepresyjnych. Po opublikowaniu metaanalizy, która ukazywała zdumiewającą korelację między efektem placebo a efektem działania antydepresantów na poziomie 0,9, przedstawiono doniesienia na temat ścisłego związku między doświadczaniem przez pacjenta skutków ubocznych leków a poprawą jego samopoczucia. Wykazywano, że efekt działania antydepresantów może wynikać ze złamania procedury badawczej i odkrycia, w której grupie badawczej znajduje się uczestnik badań na podstawie doświadczanych przez niego skutków ubocznych przyjmowanych środków farmakologicznych.

**Cel badań:** Celem wystąpienia jest prezentacja przeglądu literatury naukowej, która dotyczy ścisłego związku efektu placebo z efektem działania leków przeciwdepresyjnych (w szczególności fluoksetyny, amitryptyliny, izokarboksazydu), również w kontekście ograniczeń powyższych doniesień oraz możliwego kierunku przyszłych badań.

**Materiał i metody:** Przegląd literatury naukowej z preferencją metaanaliz.

Wyniki: Przedstawione badania ukazują bardzo wysoką korelację między efektem placebo a działaniem leków przeciwdepresyjnych, ponadto kontrola statystyczna doświadczanych przez pacjentów skutków ubocznych leków redukuje całkowicie efekt leczenia antydepresantami. Co istotne, badania nad efektem placebo i skutecznością antydepresantów obejmowały różny czas monitorowania postępu efektów terapeutycznych, zróżnicowany poziom depresji pacjentów oraz różne środki farmakologiczne. Przedstawione wyniki badań można traktować jako alternatywne wyjaśnienie efektów działania leków przeciwdepresyjnych.

#### **Abstract**

The papers that have been published in the last twenty years make the researchers change their way of thinking about the mechanism of action of antidepressants. Since the groundbreaking meta-analysis by Kirsch and Sapirstein, which had shown a correlation between the placebo effect and the effect of antidepressants at r=0.9, many papers and meta-analyses reducing the effect of antidepressants to the placebo effect have been published. Among others, it has been shown that the therapeutic effect of the drugs was closely related to the side effects experienced by the patient. Current research studies indicate that the effectiveness of antidepressants is not caused by their chemical components, but rather by the placebo effect.

9. THE PREVALENCE OF THE ANXIETY CONDITIONS IN THE STUDENTS OF THE MEDICAL UNIVERSITY OF WARSAW

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The study was performed among the Polish-speaking students of all faculties at Medical University of Warsaw

in 2017. The main aim of this study was to explain epidemiology and dynamics of various anxiety conditions among students of all medical faculties. We tried to check how severe those conditions are, what are the causes and if participants are aware of their problems. Medical students are exposed particularly to the stress related to high expectations, environmental pressure and uncertain future. Moreover, first symptoms of many mental disorders are typically observed in that age group. Students were asked to fill by themselves the questionnaire in two ways: the online version and the paper version at the campus. Looking for any difference, both versions were compared. The first part of the questionnaire requires basic personal data, the following is based on Hamilton Anxiety Rating Scale (HAM-A) allowing to assess the anxiety with the point scale. Results: Only 13.9% of all students were free of anxiety at any level. 35.8% of all students marked that they experienced clinically significant levels of anxiety ("3" or "4" at Hamilton Scale).

## 10. POSSIBILITIES AND THE USAGE OF HYPNOSIS IN CONVENTIONAL MEDICINE

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Analysis of the worldwide reports about possibilities and current usage of hypnosis in conventional medicine have extraordinary meaning in development of doctor's praxis in every speciality. Re-framing previous research achievements in the matter of an advantage of hypnosis over some kind of pharmacological treatment or pharmacological anesthesia and reports involving usage of hypnosis in therapeutic developments and a medicine students' point of view will be presented. Covering the meaning of hypnosis language and waking suggestions in doctor–patient communication as well as improvement of general patients' confidence about the prognosis have a point in triggering an interest in conducting research in this area.