

Abstracts from Women's Health 2019

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ject, and 5 poster prizes were awarded at national and international congresses for PhD-Gender-posters.

Conclusions: To get Gender and Gender Medicine into medical research they must already be included in the core curriculum if they are to be considered a 'normal' subject. Another important factor is to emphasize the usefulness of Gender-Medicine-findings with regard to research possibilities, project applications, grants and resources. We hope that being forced to include Gender aspect in their PhD-theses will help them to get used to it and they will do it also in future projects.

54. CKACS: Contraception Knowledge Assessment in College Students

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Background: Unintended pregnancy continues to be a public health concern for more than 40 years. In 2011, the overall percentage of unintended pregnancy among all females of reproductive age (15-44 years old) was 45%. There is a need to provide resources and intervention to prevent unintended pregnancy in 18-24 years old; one point of possible intervention is to target students who attend college. The incidence and prevalence of unintended pregnancy can potentially be reduced by increasing knowledge and awareness about contraception options.

Methods: A convenience sampling was used with a custom survey conducted in regularly scheduled elective Women's Health classes from 2015-2018. Surveys contained questions about demographic characteristics and knowledge of contraception options. Paired sample t-test was performed as well as means and percentages using SPSS for analysis.

Results: The sample was N = 170, 81% female; 16%, 36% were juniors, and 45% were seniors. 39%-White; 25% AA, 12%-Latinx, 15% other. The mean pretest score was 5.76 out of 10, and the mean posttest score was 6.96, $t=24.3$, $p=.000$, Cohen's $d=.77$.

Conclusions: Knowledge increased significantly from pretest to posttest. Future studies are needed to better understand the depth of knowledge around newer methods of contraception (LARCs) and testing throughout the university. Longitudinal studies of students' attitude, behaviors, and gaps in contraception knowledge are needed.

55. Development of a Program of Physiotherapeutic Exercises for the Upper Limb After Mastectomies

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Background: Breast cancer is the second most frequent in women. Mastectomy, many times associated with axillary lymphadenectomy, may cause limitation of the homolateral upper limb movement range. Breast reconstruction procedures can also have a negative impact on function. Therefore, physiotherapy plays an important role at all treatment stages. This study aimed to verify the limitations of upper limb

movement in the postoperative period of mastectomy and to support the elaboration of a program of physiotherapy exercises for the patients.

Methods: The sample calculation for this cross-sectional study resulted in 48 individuals. Thus, 48 breast cancer patients who underwent mastectomy at least one month before, with or without breast reconstruction procedures, were enrolled. The Brazilian validated version of the Disabilities of the Arm, Shoulder and Hand (DASH) was applied to identify the restrictions.

Results: Patients' ages ranged from 31 to 90 years (median 51 years), and 42% of them had implant-based breast reconstruction. The major restrictions were related to the upper limb abduction and shoulder flexion. 65% of the patients had difficulty in performing shoulder flexion (29% could not perform flexion at all); 56% had no upper limb weakness, but 2% had extreme weakness, limiting daily tasks. Breast reconstruction did not increase the restrictions.

Conclusions: The main limitations observed were upper limb abduction and shoulder flexion. Based on these results, a specific physiotherapy exercises program was developed and transformed into an algorithm, which will allow the development of an easily accessible app to be used by patients in the postoperative period.

56. A Multidimensional Gender-Based Study on UCSF Electronic Medical Record to Improve Women Health

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Background: The main objective of this study is multidimensional data analytics on UCSF Electronic Medical Records (EMR) to find the gender-based differences of treatment plans to improve women health.

Methods: We analyzed EMR including patient's demographics, allergies, billing information, coverage, departments, diagnoses, encounters, flowsheet, immunization, lab, medication orders, procedure orders, providers, and vitals. We provided the statistical analysis (e.g. p-value). Then we did deep learning with Tensor Flow to find the most effective predictors for outcomes (e.g. status of the patients). We designed and implemented a model to find the sequence of events from the time of admission to release for each individual patient.

Results: As of July 2018, all patients at UCSF includes 573,033 Female and 474,367 Male are analyzed. Our statistical analysis showed that there are significant gender-based differences (e.g. surgical procedures on the pericardium with the p-value of 0.23 on 989 female versus 2 male), patients under extracorporeal membrane oxygenation with the p-value of 0.18 on 423 female versus 10 male. In term of medication, there are significant differences in some medicine such as Hydroxychloroquine on 875 male versus 3890 female. Hydroxychloroquine is used to treat malaria. This medication is also used with other medications, to treat certain auto-immune diseases (lupus, rheumatoid arthritis). This observation raises a question of the reason for gender-based differences. Due to the word limitation, more results can discuss later.

Conclusions: We found the evidence to determine the gender-based differences in real-world practice. The results of this study could improve women health by suggesting a different guideline for treatment considering their genders.