

correlation. Through the hierarchical regression analysis, BDI score had a significant role to increase job stress when surface acting is put into the model as well, while BAI and STAXI\_S scores did not. Moreover, BDI score had a significantly partial mediation effect on the pathway that surface acting positively predicts job stress in PW group.

In the hospital, the PW employees have more emotional labor and job stress than those of the NPW. In the PW group, surface acting of emotional labor predicts the job stress, and depression is mediating factor which have an important role in the relationship between emotional labor and the job stress.

**Keywords:** Emotional labor, Surface acting, Deep acting, Depression

## PS236

A multi-centre, multi-country, cross-sectional study to assess and describe cognitive dysfunction in Asian patients with Major Depressive Disorder (MDD)

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### Abstract

**Background.** MDD is a leading cause of disability. Cognitive dysfunction is a predominant symptom of MDD, contributing to patients' functional impairment.<sup>1-3</sup>

**Objective.** This cross-sectional, observational study assessed and described cognitive dysfunction amongst MDD patients in Malaysia, Thailand, Taiwan, Singapore, Indonesia and Philippines.

**Methods.** Adults with a current episode of MDD were recruited from 9 university/general hospital clinics. During a single study visit, physicians assessed depression severity (Clinical Global Impression-Severity, CGI-S); patients completed questionnaires assessing depression severity (Patient Health Questionnaire-9 items, PHQ-9), perceived cognitive dysfunction (Perceived Deficit Questionnaire-Depression, PDQ-D) and functional disability (Sheehan Disability Scale, SDS). PDQ-D scores were compared between patient subgroups using Student's t-test. Continuous data are presented as mean±SD.

**Results.** Patients (n=664), mean age=46.5±12.5 years, were predominantly women (66.3%), lived in urban areas (81.3%), spent 12.8±4.7 years in school/college/university, and were employed (84.6%). 51.5% of patients were having their first depressive episode, 86.7% were receiving treatment, 82.2% had a current episode duration >8 weeks. Patients had mild-to-moderate depression (CGI-S=3.3±1.0; PHQ-9=11.3±6.9). Patients reported cognitive dysfunction (PDQ-D=22.6±16.2) and functional disability (SDS=11.3±7.9). Subgroup analyses showed higher PDQ-D scores for patients aged 21–25 (n=54) vs 61–65 (n=93) years (PDQ-D: 32.1±12.9 vs 15.1±13.2 respectively, p<0.05), with markedly severe (n=68; CGI-S=5) vs mild (n=253; CGI-S=3) depression (PDQ-D: 36.6±16.6 vs 21.0±13.7 respectively, p<0.05), with >3 (n=57) vs 1 (n=113) previous depressive episode (PDQ-D: 31.3±15.7 vs 18.3±14.6 respectively, p<0.05), and who didn't achieve remission (n=58) vs those who achieved remission (n=264) in the last depressive episode (PDQ-D: 29.5±16.5 vs 21.6±16.3 respectively, p<0.05). Moderate-to-high, positive Pearson correlations were observed between perceived cognitive dysfunction, depression severity and functional disability (PDQ-D/PHQ-9: r=0.69; PDQ-D/SDS: r=0.63; PHQ-9/SDS: r=0.72).

**Conclusion.** This study describes the profile of Asian MDD patients with different degrees of perceived cognitive dysfunction, and contributes to current knowledge of how

cognitive dysfunction relates to depression severity and patient functioning.

### References

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## PS237

Bidirectional Relationships between Androgen Deficiency and Mood Disorders: A Nationwide Population-based Cohort study

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### Abstract

**Objective:** The association between testosterone level and mood was studied widely with inconsistent findings. However, the objective of this study was to investigate whether patients with depressive disorders in those suffering from erectile dysfunction were at an increased risk for androgen deficiency.

**Methods:** A conditional logistic regression model was performed using data from the National Health Insurance Research Database, a nationwide dataset in Taiwan. The study sample included 8,515 patients with incident erectile dysfunction first diagnosed between 1996 and 2011. We analyzed the relationship between those with major depressive disorder and depressive disorders and those who underwent testosterone level investigation as a potential population with androgen deficiency.

**Results:** 3,243 (38%) of 8,515 patients with erectile dysfunction underwent testosterone level investigation. 372 (4%) of 8,515 patients with erectile dysfunction had comorbid diagnosis of major depressive disorder; Among these patients, 206 (55.4%) patients sought for psychiatric clinic first. Likewise, 1683 (20%) of patients with erectile dysfunction were diagnosed with depressive disorders; only 721 (42.8%) of them sought for urology clinics before depression was detected. The proportion of patients tested with testosterone level is higher with those diagnosed with major depressive disorder (5.2% vs. 3.9%, p=0.006) and depressive disorders (21.1% vs. 18.9%, p=0.014).

**Conclusions:** Findings from this study suggest a positive association between the presence of depressive disorders among patients with erectile dysfunction and an increased risk of receiving testosterone level investigation, suggesting the possibility of androgen deficiency in these patients. As these results suggest, physicians might be prone to notice the possibility of androgen deficiency when encountered with depressive symptoms in treating patients with erectile dysfunction.

## PS238

Altered balance between monoamine metabolites in human cerebrospinal fluid with major depressive disorder.

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