

pharmacotherapy, vocational rehabilitation, social skills training, daily living skills training, illness management, independent living skills training, and patient empowerment program. For CR+PR group, CR treatment was provided adjunctive to their PR program described above. CR treatment consisted of 24 sessions that occurred twice a week for 1 h/session for over 3 months. The PSSCogRehab software program which was translated in Korea and Lumosity cognitive enhancement game were utilized for CR training. Participants in PR-only group were also received same psychiatric rehabilitation program, that specific training on neurocognitive functioning was not included. Nineteen participants who were undergoing TAU without CR or PR were evaluated pre- and post-treatment.

**Results:** No group differences were found in key demographical variables, premorbid IQ, psychiatric characteristics or baseline neurocognitive functioning at the pre-treatment. CR was easily provided and well received (drop-out rates = 5.3%) by mid-aged and older psychiatric inpatients. The CR + PR group showed greater post-treatment performance on both WCST total errors and WCST %CL compared with the PR-only group (WCST total errors: mean difference = 12.28,  $p = 0.026$ ; WCST %CL: mean difference = 16.47,  $p = 0.017$ ) and TAU group (WCST total errors: mean difference = 14.00,  $p = 0.015$ ; WCST %CL: mean difference = 16.24,  $p = 0.023$ ). However, no group differences were found on WCST total errors and WCST %CL between the PR-only and TAU groups. No group differences were found for processing speed, attention, verbal working memory or cognitive flexibility.

**Discussion:** The results of the current study partially supported our primary hypothesis. Specifically, compared with the PR-only and TAU groups, the CR + PR group showed greater improvement in executive functioning. Importantly, the reliable change index(RCI) indicated that more participants in the CR + PR group had clinically meaningful improvements in LM and executive functioning compared with participants in the PR-only and TAU groups. These results suggested that CR improved some cognitive deficits in mid-aged and older long-stay inpatients with schizophrenia and that it was effective as an adjunctive treatment to the usual PR services provided in inpatient settings.

#### F56. IMPACT OF SIDE EFFECTS DUE TO SECOND-GENERATION ANTIPSYCHOTICS ON THE FUNCTIONING OF PATIENTS WITH SCHIZOPHRENIA: AN OBSERVATIONAL, PATIENT CENTERED, WEB SURVEY

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**Background:** In patients with schizophrenia, antipsychotic medications, including second-generation antipsychotics, may cause many side-effects (SE) often leading to treatment discontinuation, and possible relapse as a consequence. The impact of treatments on patient-centered outcomes such as health-related quality of life (HRQOL) is less well understood. Even less well understood is the impact of side effects on patient-centered outcomes such as daily functioning and HRQOL. Therefore, the study's primary goal was to gain a deeper understanding of the impacts of SEs of second generation antipsychotics on patients' day to day functioning.

**Methods:** A cross-sectional, web-based, patient-reported survey was fielded in the United States between July and November 2017. The final survey included patient socio-demographics, a quality of life measure (Quality of Life Enjoyment and Satisfaction Questionnaire Short Form, Q-LES-Q-SF), questions on treatment satisfaction, SEs experienced (Glasgow Antipsychotic Side-Effect Scale, GASS), and questions about the impact of SEs on functioning and emotions. Patients were recruited through

patient advocacy and support groups, and medical research panels. Patient inclusion criteria: Self-reported schizophrenia diagnosis; 18 to 65 years old; stable for at least one month at time of screening; prescribed a second-generation antipsychotic medication for 1–12 months; the final sample consisted of those individuals who reported experiencing one or more side-effects based on the GASS.

**Results:** The total sample ( $n=180$ ) had a mean age of 35 (range 18–61) years old, of which 58.3% were females. Approximately a quarter (27.8%) of the sample had a college degree or higher; 69.4% identified as White, followed by 16.7% Black/ African American, and 6.1% Native Hawaiian/ Pacific Islanders. Most prevalent SEs reported on the GASS were 'difficulty sleeping' (81.1%), 'feeling sleepy during the day' (77.2%), 'dry mouth' (70.6%), and 'feeling restless (60.6%)'. The SEs most commonly reported as distressing, for those patients experiencing that SE, were difficulty passing urine (23.3%), and feeling drugged/like a zombie (19.4%). The minimum impact from SEs on daily functioning was 53.2 on a 0–100 Visual Analogue Scale (higher number reflects more negative impact on daily functioning; 0=no impact and 100=very highly impacted). Across the SEs further probed about, the most severe impact was on one's 'ability to get or do a job'; specifically, for the SEs 'shaky hands or arms' the mean impact was 76.1, followed by 69.8 for restlessness. 'Problems enjoying sex' had the greatest effect on one's 'intimate relationships' (mean 74.8), and feeling drugged/like a zombie had the greatest effect on one's 'ability to concentrate' (mean 70.2).

**Discussion:** The study indicates the importance of incorporating the patient with schizophrenia's perspective when assessing SE experiences and impact on functioning due to second generation antipsychotic agents. Findings suggest that both activating SEs (restlessness) and sedating SEs (feeling drugged and sleepiness) have pronounced undesirable impact on daily patient functioning.

#### F57. CORRELATION FACTORS OF ABNORMAL MENSES IN SCHIZOPHRENIA TREATMENT WITH RISPERIDONE

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**Background:** A significant percentage of women taking antipsychotic medication may be suffering from abnormal menses during their treatment, which influences both fertility and adherence to medication. It is particularly common in patients prescribed with risperidone. This study aimed to identify the risk factors for abnormal menses in female individuals with schizophrenia during risperidone treatment, especially the relationship between abnormal menses and the dose or the length of the medicine.

**Methods:** This study used a retrospective data. 202 female patients diagnosed with schizophrenia using risperidone were screened. Doses and length of treatment with risperidone were various. 38 were excluded for their menstrual irregularities before treatment, in which 4 amenorrhea and 15 menopause. 164 female patients included, but 3 of them absent of data. 161 female patients included in analyses at last.

**Results:** Of the 161 patients, 119 were eumenorrhea up to our analyses, and other 42 abnormal menses, including 23 menstrual irregularities, 8 amenorrhea and 11 oligomenorrhea. There was no statistical difference in age ( $32.0 \pm 8.6$  vs.  $31.4 \pm 10.1$ ) (years), education ( $12.2 \pm 2.3$  vs.  $12.6 \pm 2.2$ ) (years), age at onset ( $26.7 \pm 8.0$  vs.  $24.8 \pm 8.4$ ) (years), duration of illness ( $5.8 \pm 5.2$  vs.  $7.0 \pm 7.7$ ) (years), PANSS total score ( $37.2 \pm 8.8$  vs.  $38.1 \pm 7.0$ ) between normal group and abnormal group. There was also no statistical difference in risperidone dose at baseline ( $4.3 \pm 0.7$  vs.  $4.3 \pm 0.5$ ) (mg/d), total treatment in this episode ( $5.3 \pm 4.7$  vs.  $5.4 \pm 5.4$ ) (months), overall length of risperidone treatment in this episode ( $86.7 \pm 62.0$  vs.  $98.6 \pm 73.5$ ) (days), length of risperidone treatment at optimal therapeutic dose ( $63.0 \pm 64.5$  vs.  $51.3 \pm 26.7$ ) (days).

**Discussion:** Some research suggests antipsychotic-induced abnormal menses is related to medication-induced high prolactinemia level and low