

Methadone Maintenance Treatment Patients' and Medical Students' Common Trait: Low Mindfulness Trait Associated with High Perceived Stress

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Abstract : Individuals with opioid addiction are characterized as suffering from stress responses disturbance, including the hypothalamic-pituitary-adrenal (HPA) axis, and autonomic nervous system function. HPA axis is known to be stabilized during methadone maintenance treatment (MMT). Mindfulness (present-oriented, nonjudgmental awareness of cognitions, emotions, perceptions, and habitual behavioral reactions in daily life) counteracts stress. To our knowledge, the relation between perceived stress and mindfulness trait among MMT patients has never been studied. To measure indices of mindfulness and their relation to perceived stress among MMT patients, a cross-sectional random sample of current MMT patients was performed using questionnaires for perceived stress (PSS) and mindfulness trait (FFMQ- yields a total score and individual scores for five internally consistent mindfulness factors: Observing, Describing, Acting with awareness and consciousness, Non-judging the inner experience, Non-reactivity to the inner experience). Two additional groups were studied to serve as reference groups; Medical students that are known to suffer from stress, and Axis II psychiatric diagnosis patients that are known to be characterized with poor mindfulness trait. Results: Groups included 41 MMT patients, 27 Axis II patients and 36 medical students. High perceived stress (PSS \geq 18) defined among 61% of the MMT patients and 50% of the medical students. Highest mindfulness score observed among non-stressed MMT patients (153.5 \pm 17.2) followed by the groups of stressed MMT and non-stressed student (128.9 \pm 17.0 and 130.5 \pm 13.3 respectively), with the lowest score among stressed students (116.3 \pm 17.9) (multivariate analyses, corrected model p ($F=14.3$) < 0.0005 , p (group) < 0.0005 , p (stress) < 0.0005 , p (interaction) = 0.2). Linear inverse correlations were found between perceived stress score and mindfulness score among MMT patients ($R=-0.65$, $p < 0.0005$) and students ($R=-0.51$, $p=0.002$). Axis II patients had the lowest mindfulness score (103.4 \pm 25.3). Conclusion: High prevalence of high perceived stress which characterized with poor mindfulness trait observed in both MMT patients and medical students, two different population groups. The effectiveness of mindfulness treatment in reducing stress and improve mindfulness trait should be evaluated to improve rehabilitation of MMT patients, and students success.

Keywords : mindfulness, stress, methadone maintenance treatment, medical students

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