# Long-term recovery from opioid use disorder: recovery subgroups, transition states, and their association with substance use, treatment, and quality of life

Category: Poster Presentation (in person)

Abstract Body

Objective

The purpose of this research was to identify subgroups of recovery from OUD, and characterize longitudinal transitions among these subgroups.

Methods

Secondary data analysis (N=216) of Remission from Chronic Opioid Use-Studying Environmental and SocioEconomic Factors on Recovery (RECOVER; NCT03604861), a longitudinal observational study of individuals with OUD where participants completed assessments every 6 months for 24 months. Demographics, depression, pain, opioid withdrawal, psychological distress, quality of life, and physical and mental abuse variables were collected using standard measures. Principal Component Analysis (PCA) identified factors of recovery, k-means clustering identified subgroups (clusters), and transition matrices were compared using a Likelihood Ratio Test.

Results

Participants were male (65%), average age of 43 years, 55% white and 38% black. PCA analysis identified three factors of recovery: depression, withdrawal, and pain and physical health, leading to four subgroups with distinctive recovery-related outcome profiles: High-Functioning, Pain, Depression, and Low-Functioning. Significant differences in depression, opioid withdrawal, pain, and quality of life were observed among subgroups across all time-points (Ps < 0.006). Though transitions among subgroups over time were observed, individuals in the High-Functioning and Pain subgroups had a 76 and 57% probability, respectively, of remaining in the same subgroup 6 months later. In addition, the Depression subgroup had a 26% probability of transitioning to the High-Functioning subgroup and the Low-Functioning subgroup had a 48% probability of transitioning to any other subgroup during that time. Significant differences in these transition matrices over the duration of

recovery were not observed (LRT:$\chi 2(36)= 37.571$;P-value = 0.397).

Conclusion

Recovery from OUD is a multifactor process, and we have identified four key subgroups. Different recovery-related outcome metrics were seen in these subgroups. The fact that these subgroup designations changed over time emphasizes the dynamic nature of OUD recovery. These results suggest the need for more individualized treatment approaches.

Key Words

- Epidemiology
- Opioids/Opiates
- Recovery
- Substance Use Disorder (general)

Learning Objective # 1
Identify factors associated with, and subgroups among, recovery in Opioid Use Disorder (OUD)

Learning Objective # 2
Understand the transitions among subgroups for individuals in recovery from OUD

Reference # 1
Craft WH, Shin H, Tegge AN, Keith DR, Athamneh LN, Stein JS, Ferreira MAR, Chilcoat HD, Le Moigne A, DeVeaugh-Geiss A, Bickel WK (2022). Long-term recovery from opioid use disorder: recovery subgroups, transition states, and their association with substance use, treatment, and quality of life Addiction, 1 – 11.

Reference # 2
Ling W, Nadipelli VR, Ronquest NA, Albright VA, Aldridge AP, Learned SM, et al. Remission from chronic opioid use—studying environmental and socio-economic factors on recovery (RECOVER): study design and participant characteristics. Contemp Clin Trials.2019;76:93–103.

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