Mobile breathalyzers in substance use disorder treatment: Utilization, validity, and utility in treatment provision

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Aims: To assess the feasibility and utility of mobile momentary-assessment breathalyzers within the context of an intensive outpatient (IOP) treatment for Alcohol Use Disorder (AUD).

Methods: Twenty-two participants in an IOP treatment program in Southern California were provided breathalyzers at the onset of treatment. Breathalyzer assessment schedules were set based on client’s self-report of sleep schedule and three to five assessment per day were conducted remotely. Breathalyzer data was recorded for the duration of treatment, which lasted between two-to-six months (M=2.3 months). Participants were given a short survey to assess their satisfaction with the Breathalyzer system. Data preparation and analysis was conducted using SAS 9.1.

Results: Analysis indicated substantial presence of missing data when looking at individual data points. Data was therefore aggregated by day, alleviating a substantial proportion of the missing data. Clients reported mostly positive feedback regarding their satisfaction with the Breathalyzer system and client performance in treatment was seen to correlate with their adherence to Breathalyzer reporting.

Conclusions: Our study reveals that the utilization of momentary substance detection methods, such as a Breathalyzer, within an IOP treatment context is feasible. Furthermore, the study reveals specific analysis recommendations for providers engaged in such data collection. Finally the use of reporting adherence as a measure of treatment progress is suggested given the relationship between treatment success and Breathalyzer reporting observance.

Biography
Adi Jaffe completed his PhD at The University of California in Los Angeles and Postdoctoral studies from UCLA’s Semel Institute for Neuroscience and Human Behavior. He is the co-founder and executive Director of research for Alternatives Addiction Treatment, a premier outpatient SUD treatment provider in Beverly Hills, California. He also founded and developed the first algorithm-driven SUD treatment-search tool that was used in the described study. He has published more than a dozen papers in reputed journals and serves on the editorial boards of a number of SUD journals.

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