Efficacy of the Ria Treatment Platform
The First 230 Patients

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Abstract

Aim: To investigate longitudinal trends in blood alcohol content (BAC) assessments during a novel telehealth treatment for alcohol use disorder.

Background: Despite available, efficacious treatments for alcohol use disorder (AUD), only 6.7% of the 15.1 million people diagnosed with AUD in 2015 sought treatment. Barriers such as stigma and lack of transportation make telemedicine an attractive alternative. The Ria Health platform is a telemedicine program and smartphone app to help people with AUD decrease their alcohol consumption. Patients access a physician, obtain medication to curb alcohol cravings, and receive support from a recovery coach. As part of the program patients track their BAC through daily breathalyzer assessments linked to their smartphones.

Methods: The current study examined breathalyzer data collected daily over a 6 month period, with the analysis restricted to evening breath tests (N=230; 16,952 observations). Using dynamic structural equation modeling to analyze the ecological momentary assessment data, a linear model was compared against a quadratic model. Deviance Information Criterion supported the quadratic model, which was subsequently used to depict BAC trends graphically.

Results: Both the linear (β = .04 [.01, .07], p < .001) and quadratic (β = .01 [.00, .02], p < .01) models showed significant reductions in BAC over time. Mean BAC decreased from .07 at baseline to .03 at 6 months, a 57.1% decrease.

Conclusions: Patients using the Ria Health platform reduce their alcohol consumption and maintain reduced use for at least 6 months. More broadly, these results support telemedicine strategies such as providing prescription medications and medical advice via smartphone, rather than relying on the traditional “brick and mortar” treatment centers.

Introduction

Medications combined with psychosocial treatments are effective in AUD but remain underused. The lack of adoption of evidence-based medication-assisted treatments is due to many factors including:

• a shortage of trained and engaged physicians,
• lack of integration of psychosocial with medical treatments,
• onerous time, financial and geographic requirements for accessing treatment
• use of a binary primary outcome (abstinence vs non-abstinence)

The Ria Health platform is a telemedicine program and smartphone app to help people with AUD decrease their alcohol consumption.

Patients use a dedicated HIPAA-compliant app to access Ria physicians, obtain medication to curb alcohol use (naltrexone and others), and receive support from recovery coaches.

As part of the program patients track their breath alcohol concentrations with daily breathalyzer assessments linked to the Ria app on their smartphones.

From the provider perspective Ria is a Treatment Platform with an Integrated Treatment System.

From the patient perspective an Ria is an App

Ria integrates:
• Objective monitoring of alcohol use
• Medical Management
• Substance Abuse Coaching
• Treatment outcome monitoring
• Peer and Family Support
• Methods to engage patients

Methods

Data were collected through the Ria Treatment Platform.

Inclusion Criteria: To be included patients needed to:
• have a baseline BAC measured or calculated
• agree to receive medical and psychosocial management of AUD

Exclusion Criteria: We excluded patients who
• never had an alcohol use baseline established (N=26)
• only did product testing were excluded (N=7)

All evening breathalyzer readings performed by enrolled patients and collected with the Ria App over a 6 month period (N=230; 16,952 observations).

Data (de-identified) were analyzed by an independent 3rd party (Friends Research Institute). The FBI investigators independently designed the analysis strategy and performed the analysis.

Data analyzed using dynamic structural equation modeling with a linear model compared against a quadratic model. Deviance Information Criterion supported the quadratic model, which was subsequently used to depict BAC trends graphically.