Centene Center
for HEALTH TRANSFORMATION

Profiles of Success: Defining Profiles of Attainment in Recovery from Substance Abuse

PURPOSE OF THE STUDY

To determine what factors make up profiles and predictors of success as it relates to substance use disorder services.

STUDY AIMS

Aim 1: Characterize substance use disorder services along with additional health data/variables points that expose paths toward heath behavior success

Aim 2: Examine the effectiveness of these services as measured by treatment outcomes and need for subsequent, additional services

Aim 3: Develop profiles and predictors of treatment success relative to costs of treatment, not only in initial delivery of services, but also in terms of subsequent costs and other health outcomes associated with effective treatment/health behaviors

Aim 4: Uncover service providers with high success in order to launch deeper investigations into factors related to that success

BACKGROUND

Substance use disorders (SUD) are a major public health issue in the U.S. Alcohol abuse alone results in about 80,000 premature deaths annually and costs an estimated $220 billion each year. Driven by prescription medication misuse, accidental overdose has become the leading cause of accidental death in the United States, outstripping motor vehicle accidents.1

Improved scientific understanding of addictive disorders has led to the development of pharmacotherapies designed to improve treatment outcomes. Since the American Medical Association defined alcoholism as a disease in 1954, the U.S. Food and Drug Administration (FDA) has approved four medications to treat alcoholism2 and four to treat opioid dependence.3 Although no FDA-approved medications have been developed to treat other drug problems (e.g., cocaine or methamphetamine addiction), the medical treatment of alcohol and opioid use disorders is promising since they comprise the primary substance of about 65 percent of persons entering treatment in the U.S.4 Having the means to stabilize persons with opioid dependence is especially imperative as opioid dependence is associated with a rapid, debilitating progression; criminal activity; communicable disease transmission; and mortality.

The National Institutes of Health (NIH) and World Health Organization (WHO) consider pharmacotherapy the most important evidence-based treatment for opioid dependence. The clear superiority of medication when compared to psychosocial treatment has led the FDA to prohibit testing new medications for opioid dependence against non-medical or “abstinence-based” interventions.5 Both the FDA and the WHO (in the Declaration of Helsinki) allow new medications to be tested in placebo-controlled conditions so long as known effective treatments are not withheld in

such a manner that patients are put at risk. The high-risk associated with non-medical treatment of opioid dependence precludes placebo-controlled trials for opioid dependence of any significant duration.

The overwhelming consensus of the world scientific community on pharmacotherapy for SUD stands in stark contrast to its rejection by the U.S. treatment industry and leads to true medical anomaly – i.e., that no reputable IRB will approve a research design in

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which the unscientific, non-medical standard of care (received by 80 percent of all persons with opioid dependence) can be compared to pharmacotherapeutic treatments with known effectiveness.

While pharmacotherapeutic treatments are a developing trend in SUD treatments, it is important to understand their successes along with other broad paths toward behavior change success within this industry.

RESEARCH QUESTIONS

The main, overall research question is, what factors make up profiles and predictors of success as it relates to SUD services? We are also interested in which services and/ or behaviors lead to treatment engagement, retention and successful treatment completion. The relative costs to associate with success is an important question. Further, which community-based service providers are leading the way in treatment outcome success and how can these efforts be further investigated, tested and transferred into usual care?

TARGET POPULATION

We hope to target individuals with a diagnosed substance use disorder (this includes alcohol and other drugs) and providers serving this population. If able and data allows, we would also like to target individuals with reporting alcohol use and those prescribed addictive medications (e.g., no official diagnosis).

RESEARCH METHODS

For each aim we will conduct appropriate statistical and econometric analysis, following standard techniques in health services research, policy and economics (e.g., linear and logistic regression, panel data methods, two-part and generalized linear models for expenditures, and skewed outcomes). We will use multivariate linear models to identify disparities by region, types of treatment, and other factors while controlling for person- and provider-specific factors. Clustering at the provider or facility level will be incorporated through clustered "robust" standard errors, multi-level models, and panel data methods (fixed or random effects). Please note that we are very intersted in ongoing methods consultation and hope to benefit from the Centene partnership and all of its best resources.

CONTRIBUTION OF THE PROPOSED PROJECT TO RESEARCH, POLICY AND/OR PRACTICE

A handful of health economic studies of MAT for alcohol and opioid dependence have shown pharmacotherapy to be associated with healthcare cost savings.5 The study most similar to the one we are proposing was published in "Health Affairs" and examined Medicaid claims data from persons with opioid dependence in Massachusetts (n = 33,923).6 It found that methadone and buprenorphine therapy decreased mortality and overall health expenditures when compared to "drug-free outpatient" treatment and "no treatment" conditions. We know of no other claims-based study to examine outcomes and healthcare costs associated with MAT in the publicly funded treatment population. The Massachusetts study is more than five years old and cannot be considered definitive since treatment access and culture varies greatly by state and geographical region. The impacts and incidence of the opioid epidemic have also changed dramatically in the past five years. Since public funding pays for a majority of addiction treatment episodes in the U.S.,4 further health services, policy and economics research in this area is imperative.

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