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Rurality of Medical Provider and Race of Patient as Risk Factors for Overdose in Opioid Use Disorder Populations

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Background

This study examines the outcomes of medication assisted treatment (MAT) for opioid use disorders (OUD) based on location of treatment and race of the individual seeking treatment. Opioid use in the United States has been disproportionately rising in the last decade and there is evidence of unequal treatment based on different social disparities, namely rurality and race. Discriminatory distribution of medication and treatment for individuals seeking OUD along the lines of race and rurality is an issue of grave importance in both medical and ethical fields.

Methods

Individuals seeking treatment for OUD were identified and the use of MAT and/or mental health treatment (MHT) was analyzed. Data analysis of which course of treatment (MAT or MHT) were protective factors against overdose were analyzed. MAT most commonly used to treat OUD, buprenorphine, methadone, and naltrexone, were analyzed for risk of overdose following treatment seeking for OUD. Using administrative Medicaid data, persons with a first episode OUD diagnosis (N=9538) that were admitted to an emergency medical treatment facility in 2016-2018 and had no previous claims for OUD were identified using ICD 10 diagnostic codes. The number that initiated medication within 30 days of diagnosis were identified, separated by type of prescription: naltrexone=564, methadone=117, buprenorphine=2722, and no MAT=6187. Demographic factors (age, race, zip code of housing, and gender) were obtained from patient records, and pharmacy claims following OUD diagnosis were used to determine MAT group (i.e., buprenorphine, naltrexone, methadone, or no MAT). Emergency department and hospital claims were used to identify overdoses in the year following OUD diagnosis, and Cox regression was used to analyze risk of overdose.

Proposed Hypothesis

We predict that being treated for OUD in rural areas or being of non-white race is a leading factor of an individual recieving care that leads to overdose following treatment for being diagnosed with OUD.