A Mixed Methods Explanatory Study of Stigma, Discrimination, Sleep and Treatment Outcomes Among Individuals on Medication for Opioid Use Disorder

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**BACKGROUND**

**Opioid Use Disorder (OUD) and Sleep:**
- Affects 2.4 million individuals in the US
- More than 65% of people with OUD experience sleep deficiency

**Medication for Opioid Use Disorder (MOUD):**
- Only approximately 20% of individuals with OUD receive MOUD
- Relapse rates are high and are associated with lack of retention in treatment

**Stigma and Discrimination:**
- Serve as chronic stressors in this population
- How stigma and discrimination are associated with sleep deficiency, relapse, and treatment retention remains poorly understood

**PURPOSE**

- Evaluate the effects of stigma and intersectional discrimination on sleep, relapse, and retention among patients on MOUD
- Obtain a comprehensive understanding of perceptions, experiences, and contributors of intersectional stigma and discrimination

**THEORETICAL FRAMEWORK**

**Design:** Explanatory Sequential Mixed Method

**Sample:** This is a sub-study of a NIH funded study, the Collaboration Linking Opioid Use Disorder and Sleep (CLOUDS) study. Participants (estimated N = 220) will be individuals on MOUD at the APT foundation, a community treatment setting located in New Haven, CT.

**Quantitative Phase:** Quantitative data will be collected and associations between stigma, discrimination, sleep, relapse, and treatment adherence will be examined.

**Qualitative Phase:** Qualitative data will be collected through semi-structured interviews of 20-40 participants based on the quantitative results. Thematic analysis will be conducted to identify participant perceptions and experiences of stigma and its influence on sleep, relapse, and treatment adherence.

**Integration:** Results from both phases will be integrated to examine how the qualitative data help explain the quantitative findings and to provide a more complete understanding of the problems in the target population.

**THEORETICAL FRAMEWORK**

**Physiological Stress response:**
- Stress (Cortisol)
- Perceived Stress (Perceived stress scale)

**Sleep deficiency:**
- Sleep quality and duration (Actigraphy/Pittsburgh Sleep Quality Index)
- Chronic Insomnia (Insomnia severity index)

**Cognitive Interpretation:**
- Experiences and Perceptions of stigma (Qualitative interview)

**Individual Differences:**
- Sociodemographic (age, sex, race, ethnicity, education, employment status, income, relationship status, health status, BMI)

**TREATMENT OUTCOMES:**
- Relapse (28 days: First opioid use: self report, urine drug testing)
- Retention (Missing 10 consecutive daily doses)

**METHODS**

**Specific Aim 1 [Quantitative]** — Quantitative Data Collection → Quantitative Data Analysis

**Specific Aim 2 [Qualitative]** — Qualitative Data Collection → Qualitative Data Analysis

**Specific Aim 3 [Mixed]** — Integration

**Figure 2. Explanatory Sequential Mixed Methods Design Quan → Qual**

**ANTICIPATED RESULTS**

- Stigma and discrimination will be positively correlated with sleep deficiency, relapse, and poor treatment adherence.

**CONCLUSION AND IMPLICATIONS**

- Results will provide further insight on the various factors that contribute to perceptions and experiences of stigma and discrimination and how such perceptions and experiences influence patient outcomes.

**Research**
- Further examination of underlying pathways
- Development of stigma reduction interventions

**Policy**
- Inform national opioid policies
- Develop evidence to support funding of more comprehensive and integrative programs

**Practice**
- Identification of people at risk for stigma, discrimination, sleep deficiency, drug relapse, and poor treatment adherence
- Tailored interventions in clinical setting

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