Introduction

Schizophrenia = profound disruptions in thinking, perception of reality, sense of self, emotions, etc. 2, 11
The pathophysiology of schizophrenia remains poorly understood2
This project will explore the impact of substance abuse screening, brief intervention, and referrals for treatment (SBIRT) on healthcare utilization in schizophrenia patients with active substance use
healthcare utilization = hospitalizations and ED visits

Background & Significance

Patients with schizophrenia and substance use disorder (SUD) are 2-3x more likely to be hospitalized in comparison to patients with only schizophrenia 10
Substance abuse worsens positive symptoms of the disease, discouraging progress of treatment course 4
From 1990 to 2017, the comorbidity rate of schizophrenia with SUD in the U.S. has resided at a steady 42.7% 4
Schizophrenia management is mainly pharmacotherapy.
Residual symptoms can persist. Thus, consideration of nonpharmacological treatments is necessary 9
SBIRT is a comprehensive, integrative and early-intervention public health approach to substance use disorder management

Needs Assessment

Global: There are no current globally set standards of schizophrenia treatment.
National: Schizophrenia is one of the top 15 mental illness; average potential life lost is 28.5 years 7.
Local: Local statistics on schizophrenia are hard to find. Using data from my private mental health outpatient practice, 30% are being treated for schizophrenia.

Problem Statement

Evidence is clear on high rates of SUD among schizophrenic patients 10
Research has shown that SBIRT “increases the utilization of low-cost outpatient services and decreases utilization of high-cost inpatient and emergency services” 8

To examine the impact of SBIRT on healthcare utilization in schizophrenics with active substance use.

Methodology

Design: Pre/Post Intervention-Design Quality Improvement Project
Setting: Urban mental health private facility in NJ
Sample: 48 patients with both schizophrenia and ASU
Limits: Time Constraints & COVID-19 protocol transition
Intervention: SBIRT guidelines
Duration: 3 months
Outcome Measures:
AUDIT-C Plus 2 screening tool is recommended by the National Council 6
Data was analyzed by Wilcoxon Signed-Ranks test, using IBM's SPSS.
P < 0.05 considered statistically significant.

Results

<table>
<thead>
<tr>
<th></th>
<th>Mean Rank</th>
<th>Positive Rank</th>
<th>Negative Rank</th>
<th>Z-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
<td>575</td>
<td>0</td>
<td>0</td>
<td>0.1164038</td>
<td>0.907326</td>
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<tr>
<td>Cannabis Use</td>
<td>644</td>
<td>0</td>
<td>0</td>
<td>0.846577</td>
<td>0.397333</td>
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<tr>
<td>Other Drug Use</td>
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<td>-2</td>
<td>2</td>
<td>0.4603239</td>
<td>0.6452838</td>
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<tr>
<td>Healthcare Utilization</td>
<td>821</td>
<td>-2</td>
<td>2</td>
<td>2.7196148</td>
<td>0.0065358*</td>
</tr>
</tbody>
</table>

Conclusions

When comparing pre-SBIRT data to post-SBIRT data:
there is a statistically significant decrease in healthcare utilization
there are observed decreases in alcohol use, cannabis use, and other drug use
Significant reduction in healthcare utilization may be due to COVID pandemic as people were encouraged to avoid hospitals unless absolutely necessary.
Future studies after the pandemic has resolved will be necessary.
Future studies should also be done with larger sample size and diverse outpatient settings.

Quality & Safety: SBIRT intervention may help curb the comorbidity of SUD and schizophrenia, translating into better overall treatment.

Policy:
Intended effect of this project is to help standardize healthcare practices and to reduce illogical variation in treatment.

Economic:
In the U.S., the annual cost incurred from the management of schizophrenia ranges from $94b to $102b 11 Findings from this project may help reduce such costs by maximizing efficiency.

References