

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



(Alan Cleaver, n.d.)

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 schizophrenic 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.



(Ksayer, n.d.)

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

Aim

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



(Madartzgraphics, n.d.)

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 ⁴
- ❖ Data was analyzed by Wilcoxon Signed-Ranks test, using IBM’s SPSS.
- ❖ $P < 0.05$ considered statistically significant.

Results

	Mean Rank		Z-Value	P-Value
	Positive Rank	Negative Rank		
Alcohol Use	575	0	0.1164038	0.9073326
Cannabis Use	644	0	0.8465727	0.3972333
Other Drug Use	607.5	-2	0.4603239	0.6452838
Healthcare Utilization	821	-2	2.7196148	0.0065358*

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.

Implications

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 the schizophrenia ranged from \$94b to \$102b ¹¹ Findings from this project may help reduce such costs by maximizing efficiency.

References

1. Alan Cleaver (n.d.). *addiction* [Image]. Retrieved from <https://search.creativecommons.org/photos/612c1185-37ae-4c75-ba6e-e15ac5f5be100>
2. Buckley, P. F., & Foster, A. (2008). Schizophrenia: Current concepts and approaches to patient care. *American Health & Drug Benefits*, 1(4), 13-22.
3. Huey Y. C., Siew L. T., David Bin-Chia W., Surachai, K., Chiun-Fang C., & Nathorn C. (2016). Global economic burden of schizophrenia: A systematic review. *Neuropsychiatric Disease & Treatment*, 12, 357-373. <http://doi.org/10.2147/NDT.S96649>
4. Hunt, G. E., Large, M. M., Cleary, M., Lai, H. M., & Saunders, J. B. (2018). Prevalence of comorbid substance use in schizophrenia spectrum disorders in community and clinical settings, 1990–2017: Systematic review and meta-analysis. *Drug and Alcohol Dependence*, 191, 234-258. doi:10.1016/j.drugalcdep.2018.07.011
5. Ksayer1 (n.d.). "Why" [Image]. Retrieved from <https://search.creativecommons.org/photos/cac1772a-aa92-44c8-bab9-75bf4c1025b0>
6. Madartzgraphics (n.d.). *Target arrow bulls eye marketing* [Image]. Retrieved from <https://pixabay.com/vectors/target-arrow-bulls-eye-bullseye-2070972/>
7. National Council. (2018, February). *Implementing care for alcohol and other drug use in medical settings: An extension of SBIRT*. https://www.thenationalcouncil.org/wp-content/uploads/2018/03/021518_NCBH_ASPTReport-FINAL.pdf?dafe=375ateTbd56
8. Patel, K., Cherian, J., Gohil, K., Atkinson, D., & Patel, K. (2014). Schizophrenia: Overview and treatment options. *P & T A Peer-Reviewed Journal for Formulary Management*, 39(9), 638–645.
9. Romer Thomsen, K., Thylstrup, B., Pedersen, M. M., Pedersen, M. U., Simonsen, E., & Hesse, M. (2018). Drug-related predictors of readmission for schizophrenia among patients admitted to treatment for drug use disorders. *Schizophr Res*, 195, 495-500. <http://doi.org/10.1016/j.schres.2017.09.026>
10. Schmidt, L. M., Hesse, M., & Lykke, J. (2011). The impact of substance use disorders on the course of schizophrenia—A 15-year follow-up study. *Schizophrenia Research*, 130(1-3), 228-233. doi:10.1016/j.schres.2011.04.011
11. World Health Organization. (2019). *Schizophrenia*. https://www.who.int/mental_health/management/schizophrenia/en/