

### Abstract

Nicotine dependence is often a problem among individuals who have been diagnosed with a mental illness. The National Epidemiological Survey on Alcohol and Related Conditions states that 50% of individuals with psychosis smoke. The primary benefit to quitting smoking is risk reduction with regards to chronic diseases along with an increased life expectancy. Task persistence can aid in the maintenance of abstinence despite common tribulations like nicotine withdrawal symptoms and smoking urges. Individuals with mental illness desire to quit smoking as much as the general population, however, factors like low task persistence make it more difficult to achieve this. Following the completion of the 2 baseline assessments, the participants were arbitrarily selected to receive 8 experimental therapy sessions in either experimental group, an end of treatment session and a follow up session three months after the quit date. The patients were randomized into one of two counseling approaches, Clearing the Air or Persistence-Targeted Smoking Cessation-Schizophrenia using a block randomization procedure. We expect a higher abstinence rate in the PTSC group than the CTA group. The predicted outcome would indicate that the effectiveness of the PTSC-S approach to the participants is more than efficient to produce positive results and that the lack of persistence is a key factor in hindering successful quit attempts.

### Background

The issue of nicotine dependence is often a problem among individuals who have been diagnosed with a mental illness. This comorbidity can prove to be troublesome specifically among people with a schizophrenia or bipolar diagnosis. An interesting link between the task of quitting smoking and the diagnosis of these individuals is the lack of persistence in performing “difficult and frustrating tasks.” The deficits in persistence plays a significant role in the low quit rates among smokers with schizophrenia. This study will measure the effectiveness and viability of treatments that are specifically designed to increase motivation by targeting the deficits in task persistence in smokers diagnosed with schizophrenia.

### References

George TP. Nicotine Addiction and Other Psychiatric Disorders | Psychiatric Times. <http://www.psychiatrytimes.com/articles/nicotine-addiction-and-other-psychiatric-disorders> Published February 01, 2001.

“Persistence Targeted Smoking Cessation in Schizophrenia - Full Text View.” *Full Text View - ClinicalTrials.gov*, [clinicaltrials.gov/ct2/show/NCT03873337](https://clinicaltrials.gov/ct2/show/NCT03873337).

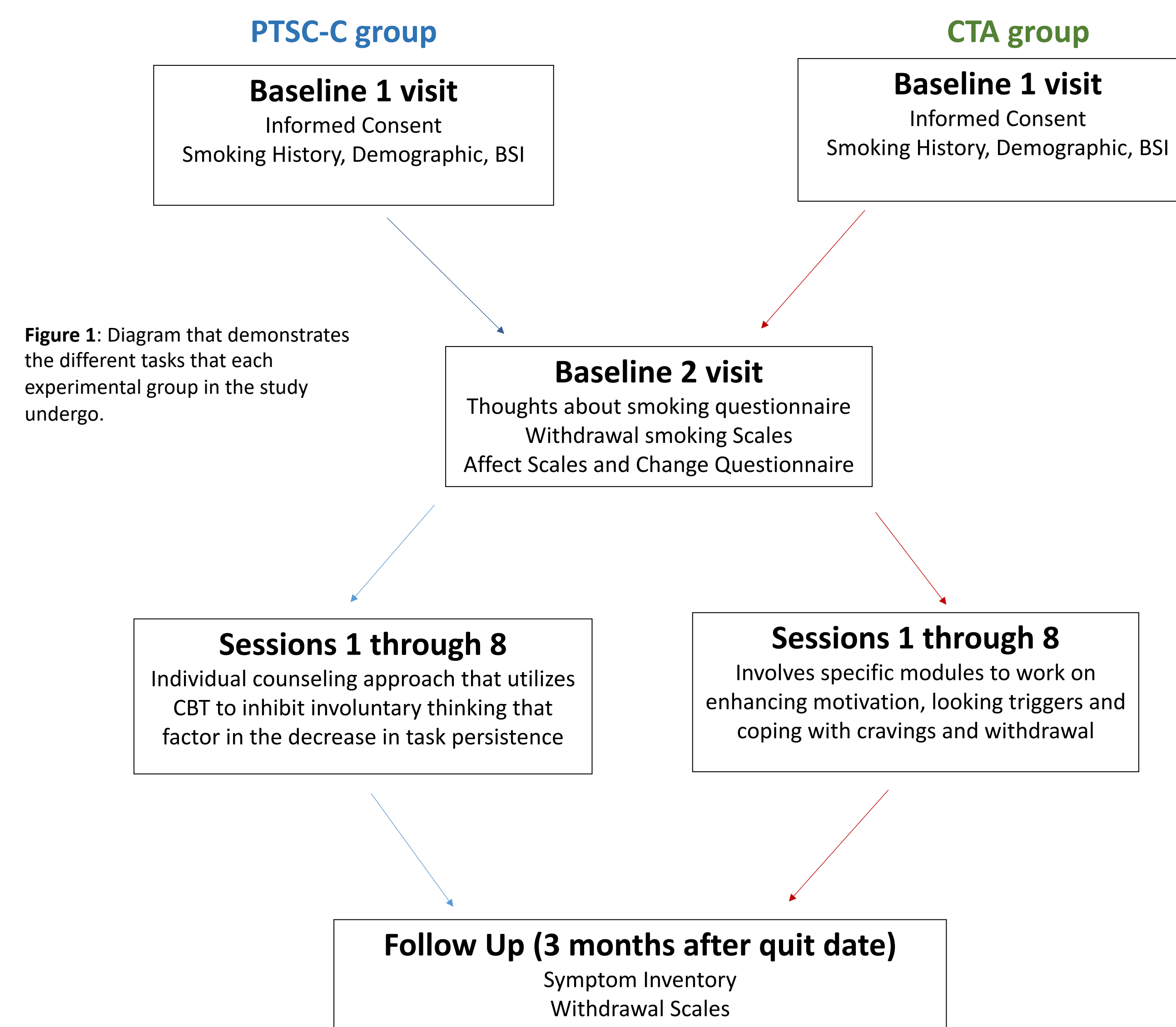


Figure 1: Diagram that demonstrates the different tasks that each experimental group in the study undergo.

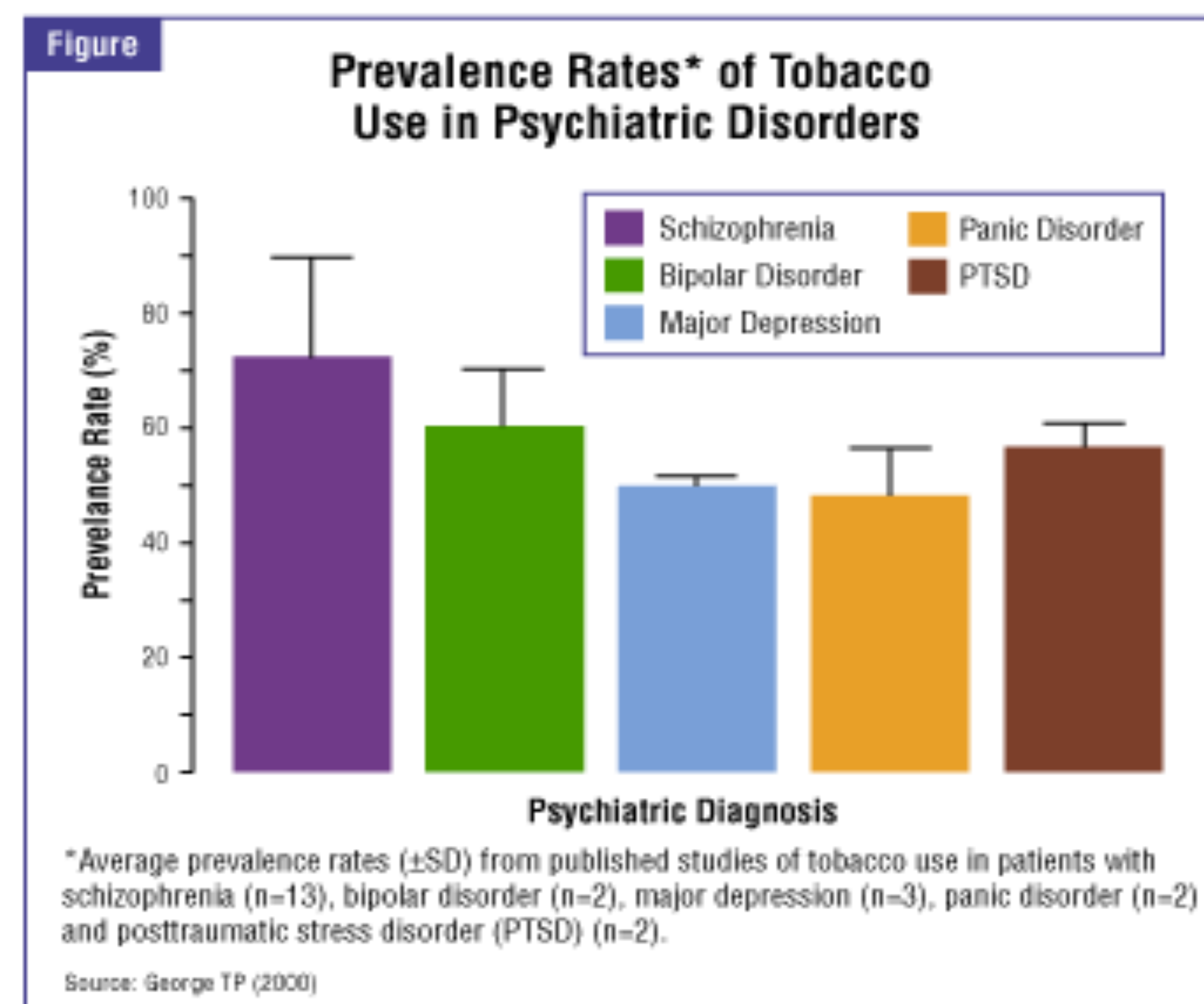


Figure 2. Prevalence rates of tobacco use in psychiatric disorders

### Methods and Materials

This study is a randomized clinical trial involving:

- up to 90 participants diagnosed with schizophrenia
- 8 individual smoking cessation counseling sessions
- an initial research assessment
- a post counseling research assessment
- a final research assessment 3 months after the subject’s final quit date
- randomization into one of the two counseling approaches
- PTSC-S, or Persistence-Targeted Smoking Cessation-Schizophrenia, an individual counseling approach that utilizes CBT to inhibit involuntary thinking that plays a role in lowered task persistence.
- CTA, or Clearing the Air approach, that focuses on motivational augmentation/enhancement, nicotine withdrawal education and craving management.

### Results

The PTSC procedure would induce a higher abstinence rate than the CTA procedure. With the use the nicotine patch and cognitive behavioral therapy to target conflicting automatic thoughts that may reduce task persistence, the PTSC group would have a higher abstinence rate than the CTA group. The goal is to focus on lowered task persistence, which the PTSC-C approach successfully does. The results of the study may be presented to the scientific community via peer review and presentations at scientific conferences. The results of the study will also be included in peer review NH grant applications.

### Future Direction

The predicted outcome would indicate that the effectiveness of the PTSC-C counseling approach along with the administering of nicotine patches to the participants is more than efficient to produce positive results. The importance of this study is to properly provide quality treatment to individuals who are having difficulty in quitting while already struggling with a debilitating diagnosis. Since the health, financial and social implications involved in smoking are disastrous, the effects of this research can prove fruitful for those suffering from them.

### Acknowledgements

We would like to sincerely thank Dr. Marc Steinberg, our principal investigator of the cessation study, and Jessica Ortiz, our research coordinator. This experience has been worth while and we are grateful to have been given the opportunity to take part in this project.