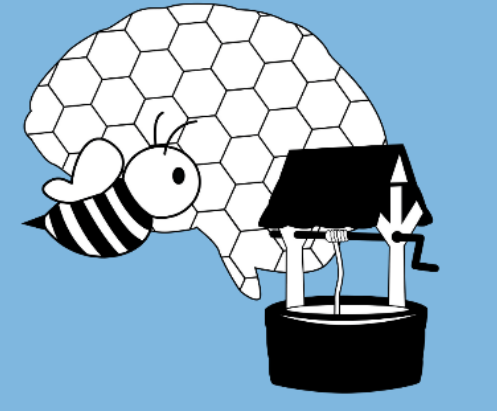


Addressing Concurrent Tobacco Use and Mental Health Challenges by Applying the Theory of Planned Behavior



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BACKGROUND

- Globally, people with mental and behavioral health disorders are disproportionately affected by tobacco use prevalence, related disease burden, and mortality as compared to the general population (Kalkorn, 2019; World Health Organization, 2020).
- Although most of these individuals desire to stop tobacco use, few engage in tobacco treatment. Moreover, mental and behavioral healthcare providers (MHPs) do not adequately provide such treatment to their patients (Koch, 2017; Okoli, 2020).
- As a guiding framework, the Theory of Planned Behavior (TPB) proposes that an individual's attitudes towards a behavior, their perceptions of the normative nature of the behavior, and their perceived ability to participate in the behavior are key predictors of the intention towards engaging in the behavior (Ajzen, 1985).
- Few studies have assessed the intentions of engaging in tobacco treatment among people living with mental and behavioral challenges or the intentions to provide treatment to this population by MHPs using the TPB.
- In this study, we present findings of the variables among the TPB most associated with the intentions to engage in tobacco treatment (among people with mental/behavioral health challenges) or to deliver tobacco treatment (among MHPs) in two settings:
 - An inpatient psychiatric setting
 - An outpatient treatment program for individuals with serious mental illnesses

METHODS

Design

- We conducted three correlational studies by using surveys to obtain information on attitudes, subjective norms, perceived behavioral control, and intentions to engage in or provide tobacco treatment.

Sample

- People with mental and behavioral health challenges and MHPs from inpatient and outpatient settings
 - Study 1 (N=115 individuals in an inpatient psychiatric setting);
 - Study 2 (N=206 MHPs from an inpatient psychiatric setting);
 - Study 3 (N= 43 individuals with serious mental illnesses and 51 MHPs from the Assertive Community Treatment programs of four community mental health centers)

Procedure

- For study 1, surveys were administered from March 1st to December 31st, 2016; for study 2, surveys were administered from March 1st to June 30th, 2016; for study 3 surveys were administered from November 1st, 2021 to May 31st, 2022.
- Trained research assistants administered a 15-20 minute questionnaire to eligible participants using pen and paper (inpatient setting) or electronically (outpatient settings).
- For the first two studies, all participants who completed the questionnaire were entered into a drawing for one of five \$20 gift cards. For study 3, MHPs were provided Yeti mugs and individuals with serious mental illness were provided \$50.00 gift cards
- We obtained approvals from the University of Kentucky Institutional Review Board.

Measures

- Demographics variables: gender, ethnicity, age, marital status, education level, work discipline, work tenure, psychiatric diagnosis
- TPB measures: attitudes, subjective norms, perceived behavioral control, and intentions to engage in (see Figure 1) or provide (see Figure 2) tobacco treatment

Main Analysis

- Multivariate linear regression was used to regress mean scores of intention to engage in/provide tobacco treatment on demographic variables and means scores of, attitudes, subjective norms, and perceived behavioral control variables.

RESULTS

Study 1

- Multivariate analysis regressing intentions on attitudes, social norms and perceived behavioral control
- In the first step of the regression, the inclusion of attitudes, subjective norms, and perceived behavioral control produced a well-fitting model (Adjusted R² = .47, p < .0001).
- In the second step, the addition of demographic and tobacco use history variables contributed an additional 2% in explaining the variance in the model (Adjusted R² = .49, p < .0001).
- Of all the TPB variables, **subjective norms** was the strongest predictor of intentions ($\beta = .47$, p < .0001), followed by perceived behavioral control ($\beta = .28$, p < .0001), and attitudes ($\beta = .20$, p = .007) (see Figure 1).

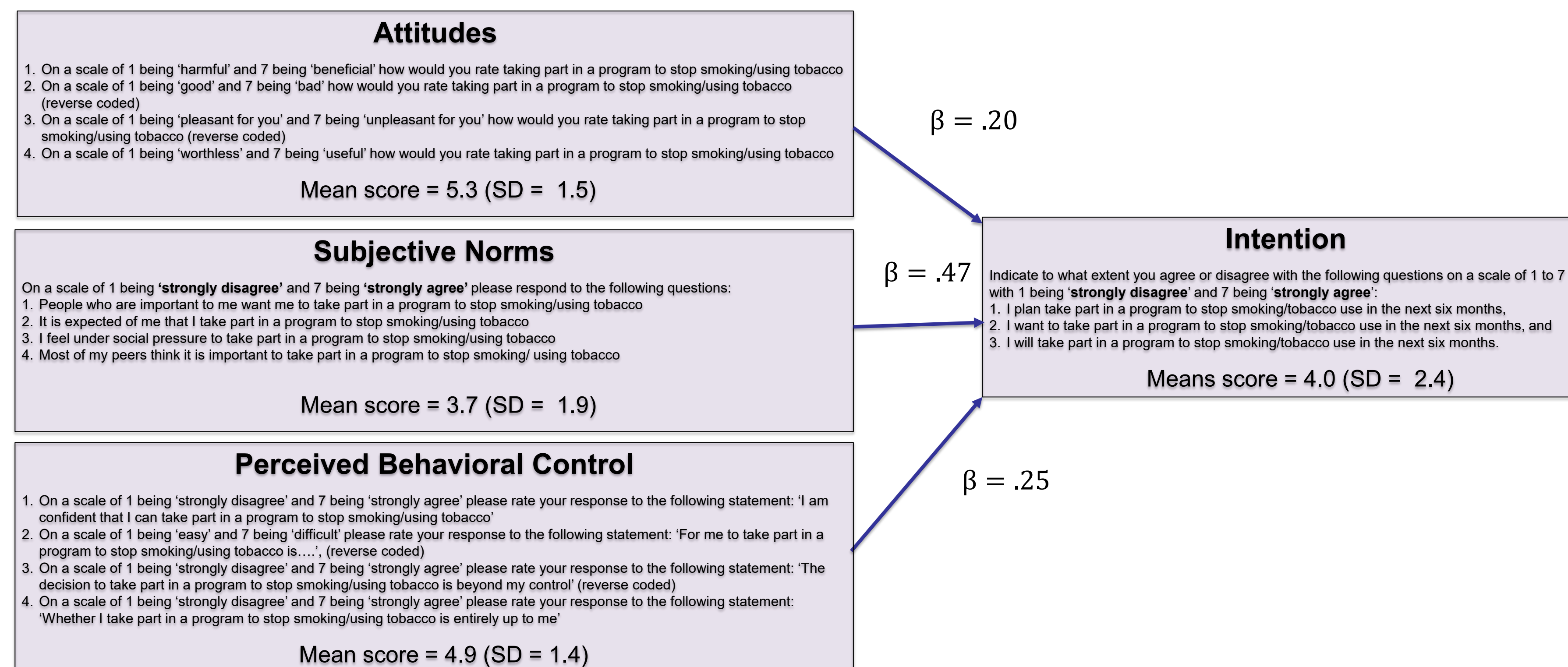


Figure 1. Factors associated with intentions to engage in tobacco treatment among inpatients (N=115)

Study 2

- Multivariate analysis regressing intentions on attitudes, social norms and perceived behavioral control
- In the first step of the regression, the inclusion of demographic variables produced a significant model (Adjusted R² = .10).
- In the second step, the addition of attitudes increased the adjusted R² to .21.
- In the third step, the addition of subjective norms, increased the adjusted R² to .40.
- In the final step, the addition of perceived behavioral control increased the the final adjusted R² to .44.
- Of all the TPB variables, **subjective norms** was the strongest predictor of intentions ($\beta = .38$, p < .0001), followed by perceived behavioral control ($\beta = .25$, p = .001), and attitudes ($\beta = .15$, p = .014) (see Figure 2).

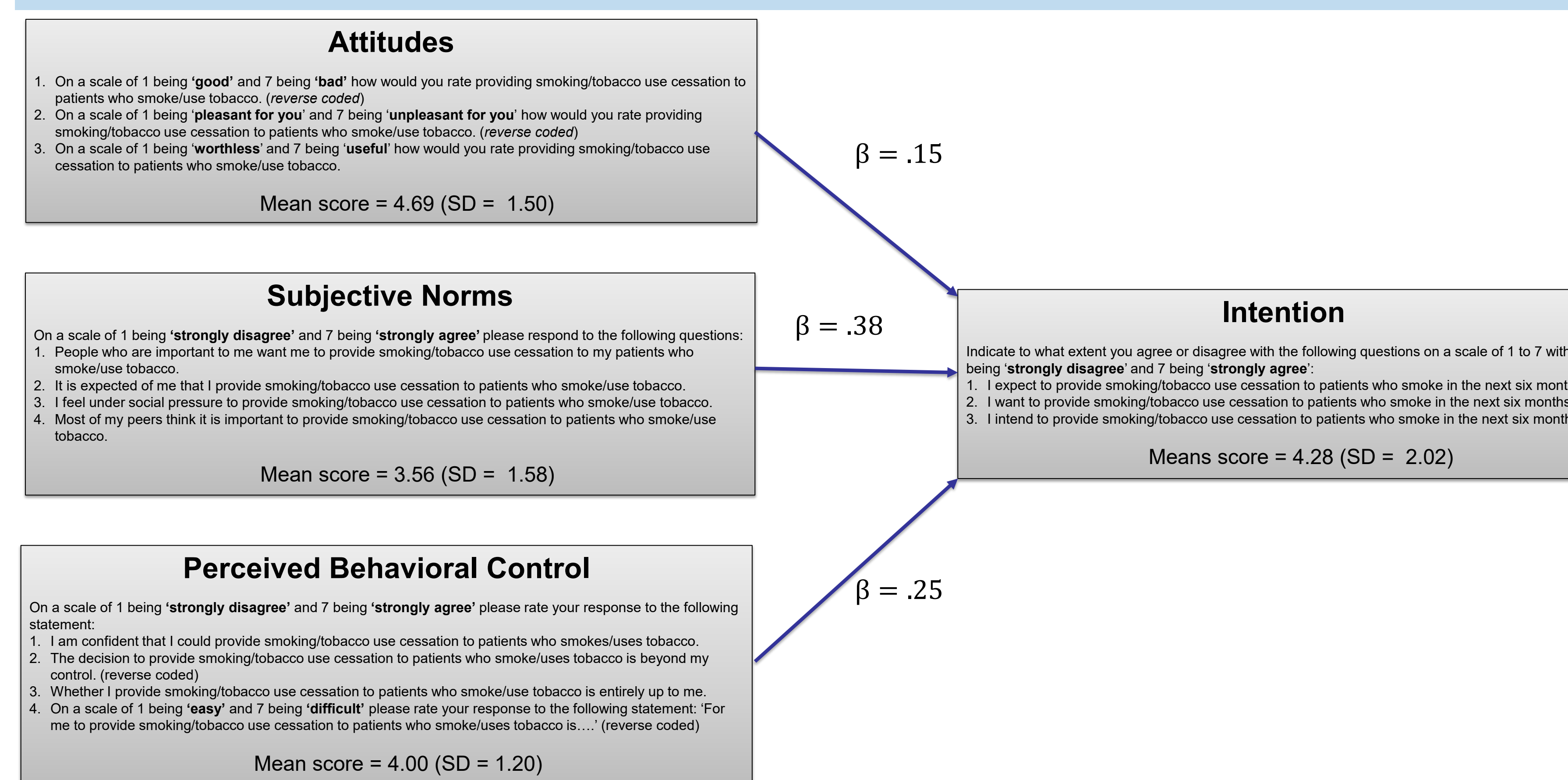


Figure 2. Factors associated with intentions to provide tobacco treatment among inpatients (N=206)

Study 3

- We compared mean scores on attitudes, subjective norms, perceived behavioral control and intentions to engage in/provide tobacco treatment between those with serious mental illnesses and MHPs (see Figure 3).
- Compared to MHPs, those with serious mental illnesses had higher mean scores on attitudes and subjective norms towards tobacco treatment; MHPs had higher scores on perceived behavioral control and intentions to provide tobacco treatment.

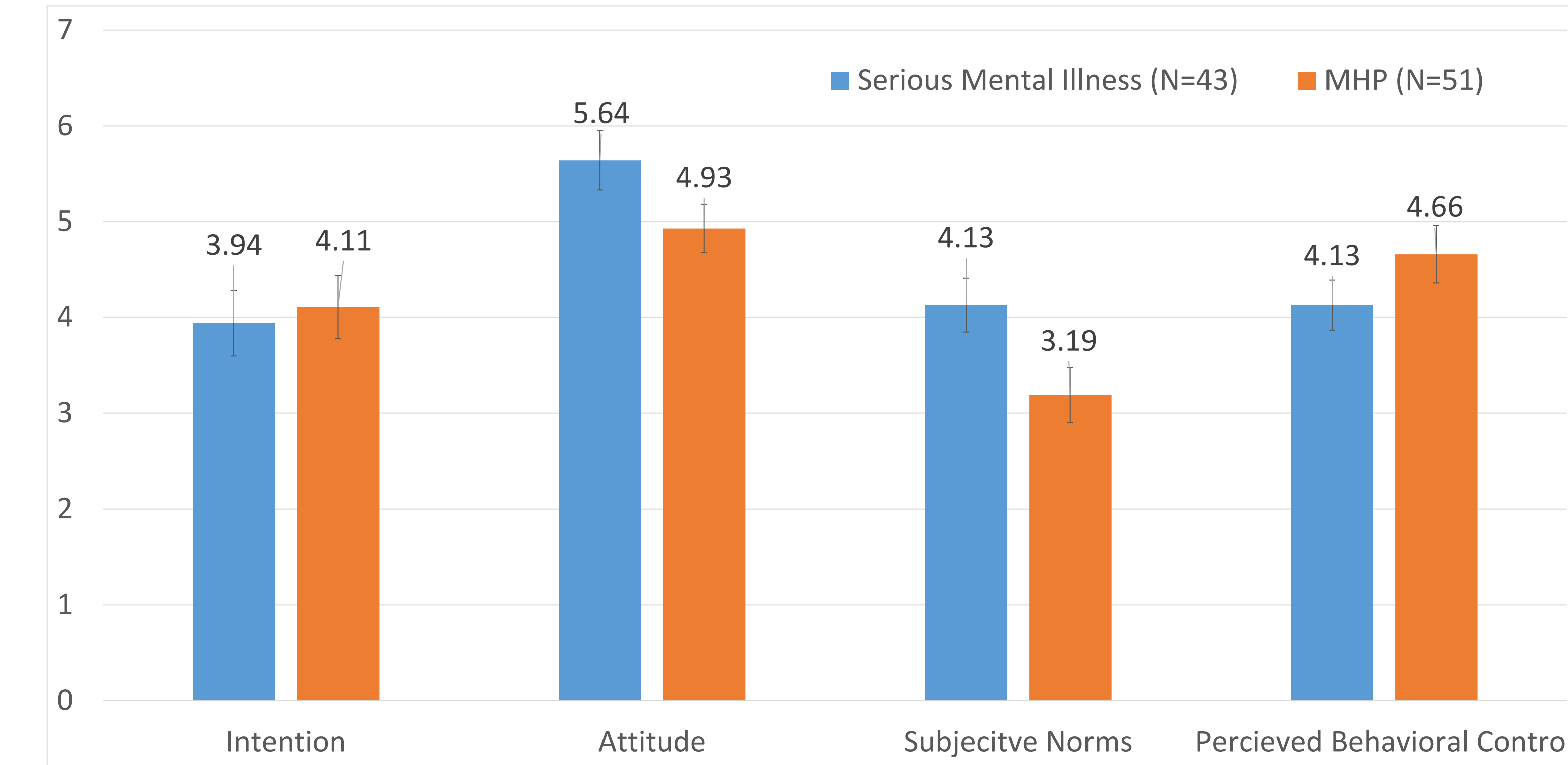


Figure 3. Comparing TPB scores between those with serious mental illnesses and MHPs

CONCLUSIONS

- In the inpatient psychiatric setting, subjective norms (i.e., the normative behavior of engaging in/providing tobacco treatment) may be the main drive for intentions to engage in/provide tobacco treatment among both inpatients and MHPs.
- In the outpatient setting, although individuals with serious mental illnesses may have higher positive attitudes and perceived subjective norms in engaging in tobacco treatment than MHPs have in delivering tobacco treatment, their perceived behavioral control and motivation (i.e., intention) to engage in tobacco control is lower than MHPs motivation and perceived behavioral control in providing tobacco treatment.

IMPLICATIONS

- Interventions should target engaging in or providing tobacco treatment as a normative behavior within inpatient psychiatric settings.
- For people with serious mental illnesses in outpatient settings, interventions should be designed to increase perceived behavioral control and motivation to engage in tobacco treatment; interventions should further target the normative behavior of providing tobacco treatment for MHPs in outpatient settings.
- Future research using the TPB can be used to further guide understanding tobacco treatment engagement or provision within mental and behavioral health settings.

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