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Treatment Outcomes of a Tailored Smoking Cessation Programme for Individuals Accessing Addiction Treatment Services

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Treatment outcomes of a tailored smoking cessation programme for individuals accessing addiction treatment services



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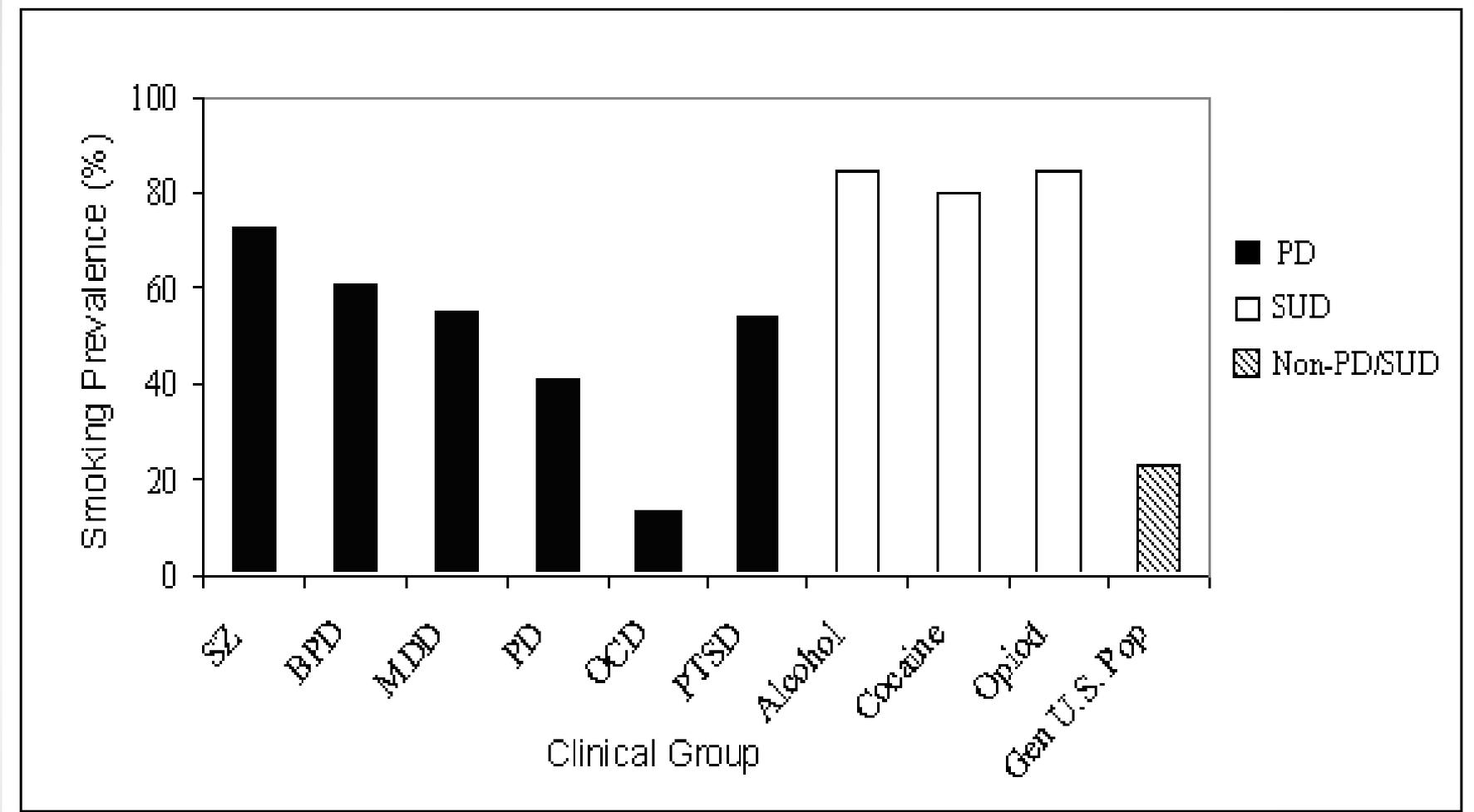
Declaration of competing interests

Dr Milan Khara has received unrestricted research funding, speaker's honoraria, consultation fees or product from the following organisations/companies in the previous 12 months:

Health Canada, Interior Health Authority, Pfizer, TEACH, QuitNow Services, Ottawa Heart Institute, Johnson and Johnson, Provincial Health Services Authority, College of Physician's and Surgeon's of British Columbia

Dr Chizimuzo Okoli has received consultation fees from Vancouver Coastal Health Authority in the previous 12 months

SIGNIFICANCE



Kalman, Morissette and George (2005), Am. J. Addict., 14: 106-123

Arguments for Not Providing Tobacco Treatment....

“these patients don’t want to quit”

- 80% of participants in a methadone maintenance program and 75% of participants in an alcohol abuse program endorsed a desire to quit (Richter KP et al., 2001; Ellingstad TP et al, 1999)
- In a review of 9 studies of motivation to quit smoking among individuals with psychiatric disorders at least 50% are contemplating cessation (Siru, Hulse & Tait, 2009).

“these patients will relapse (to other substances) if they try to quit”

- Smoking cessation efforts can ENHANCE rather than compromise long term sobriety (Prochaska JJ et al, 2004).

“these patients are unable to quit”

- Meta-analysis (n = 19 studies) of smoking cessation among individuals in addiction treatment and recovery found increased cessation at end of 12 weeks treatment (BUT NO SIGNIFICANT EFFECT AT 6 MONTHS!) (Prochaska JJ et al, 2004).
- Recent study found end-of-treatment smoking cessation rates of 20% among individuals with psychiatric disorders accessing outpatient tobacco treatment program-Longer duration of treatment significantly predicted successful cessation.

Program Description

- The Tobacco Dependence Clinic (TDC) is a program that provides **behavioural counselling** and up to **6-7months** of **no-cost pharmacotherapy** for clients through VCH Addiction Services
- Program is run with a team of nurses, counsellors, respiratory therapists, and a physician.
- Currently in 7 Addictions services located in community health centres in Vancouver.

Eligibility:

- 19 years or older
- Tobacco dependent
- Have a history of substance use disorder and/or mental illness
- Financially disadvantaged



Combination Pharmacotherapy

Nicotine Replacement Therapy



Patch



Gum



Lozenge



Inhaler

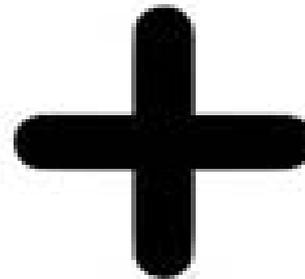
Oral Medications



Zyban



Champix

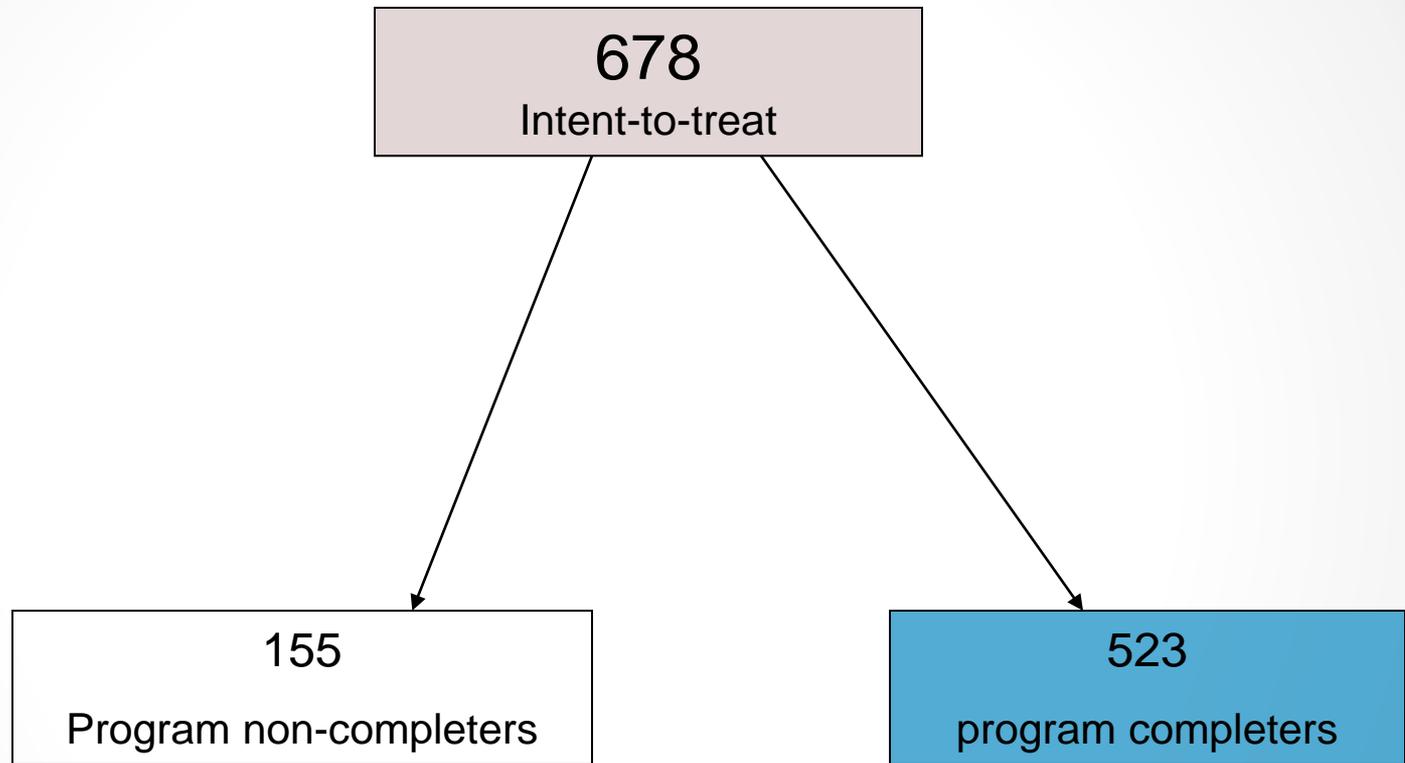


Program philosophy: Quitting smoking is a process and not an event

Specific Aims

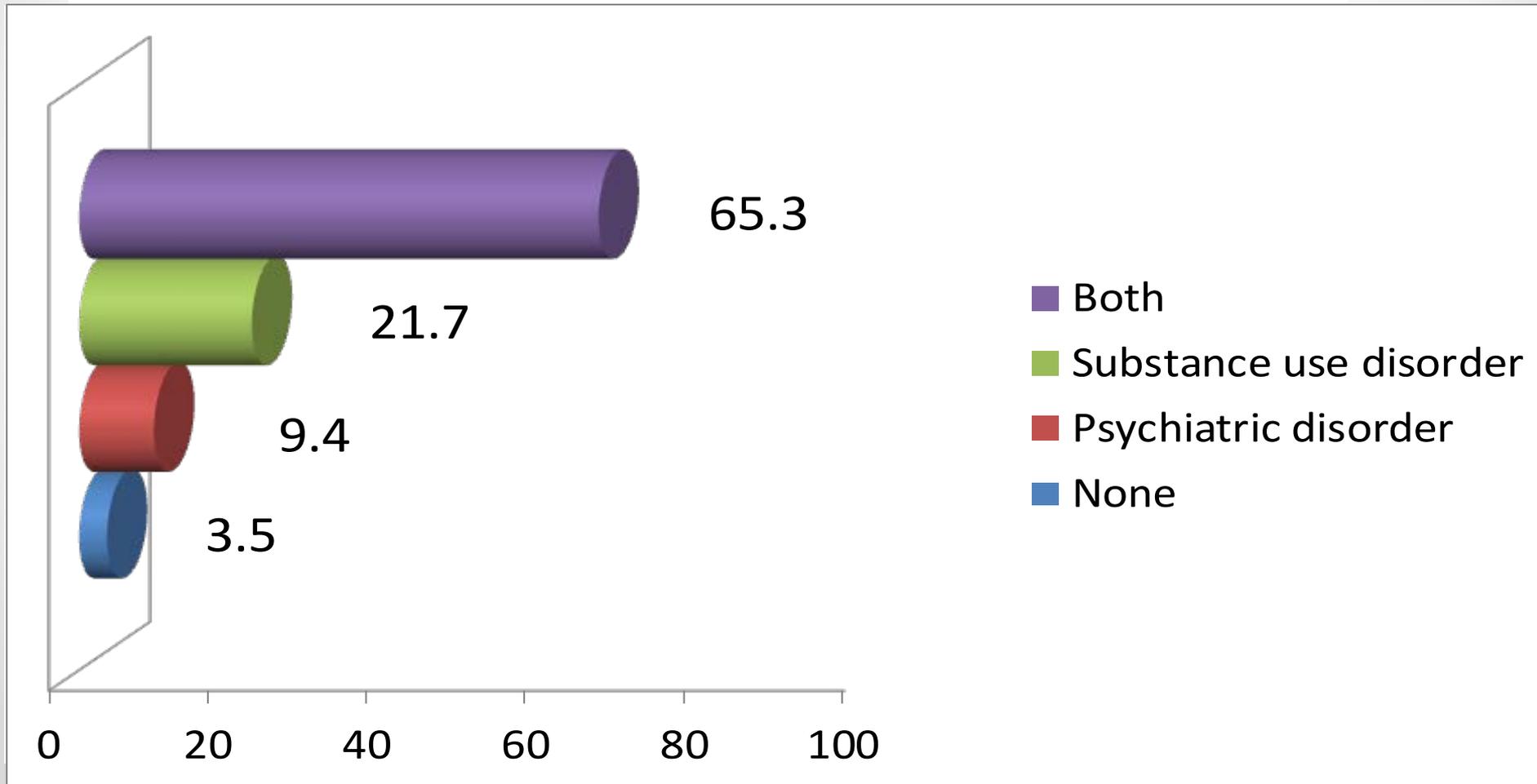
- To assess **program completion** and **smoking cessation** rates at end-of-treatment
- To examine **predictors** of successful program completion and smoking cessation

Sample for Evaluation



- Analysis is based on a retrospective chart review of participants in the TDC program (between Sept 2007 and Dec, 2011) from 7 clinics, in Vancouver, Canada
- Smoking cessation: 7-day point-prevalence of abstinence at end of treatment (i.e., anytime between 8 weeks to 26 weeks) verified by expired CO levels

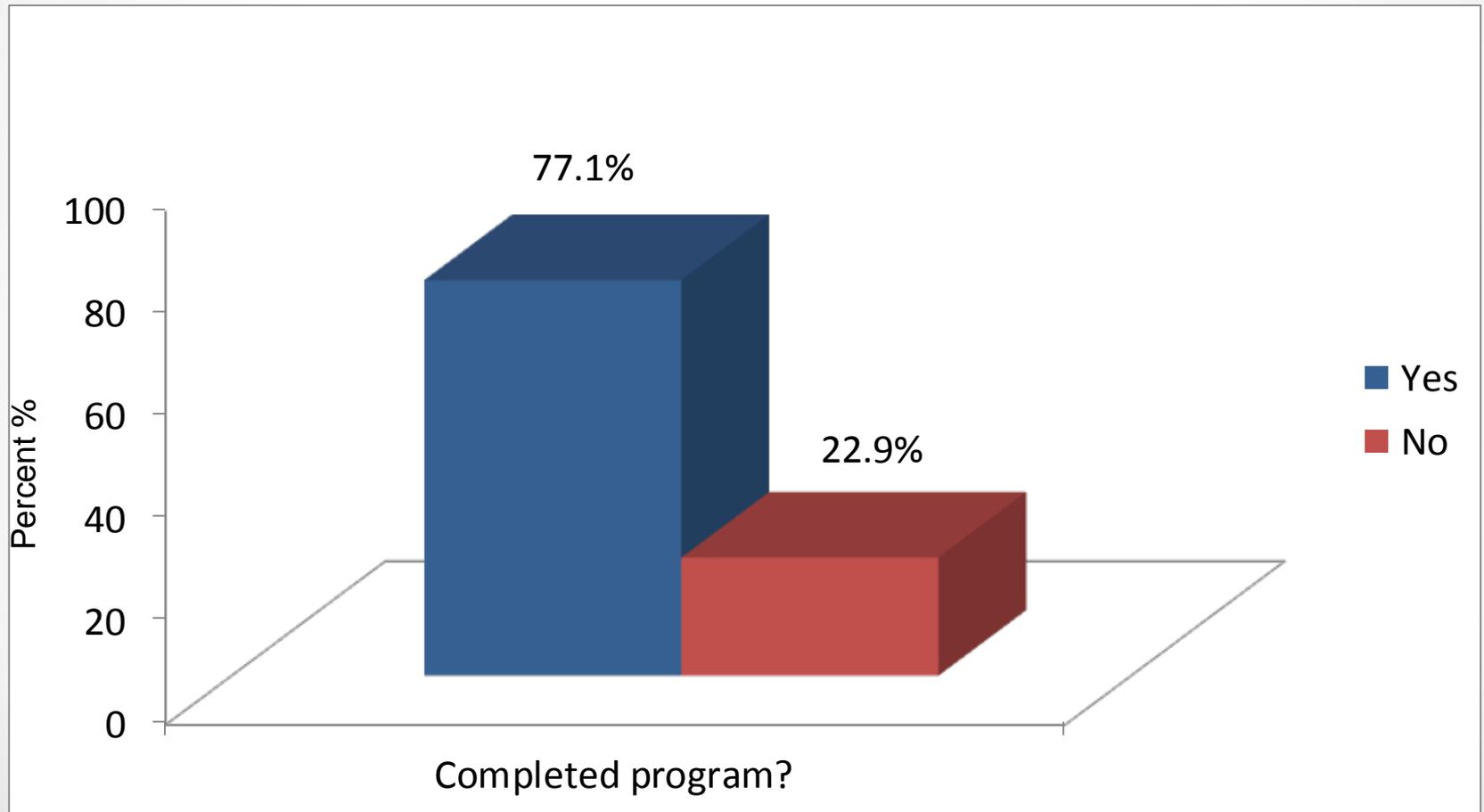
Substance Use Disorder & Psychiatric Disorder History (N = 678)



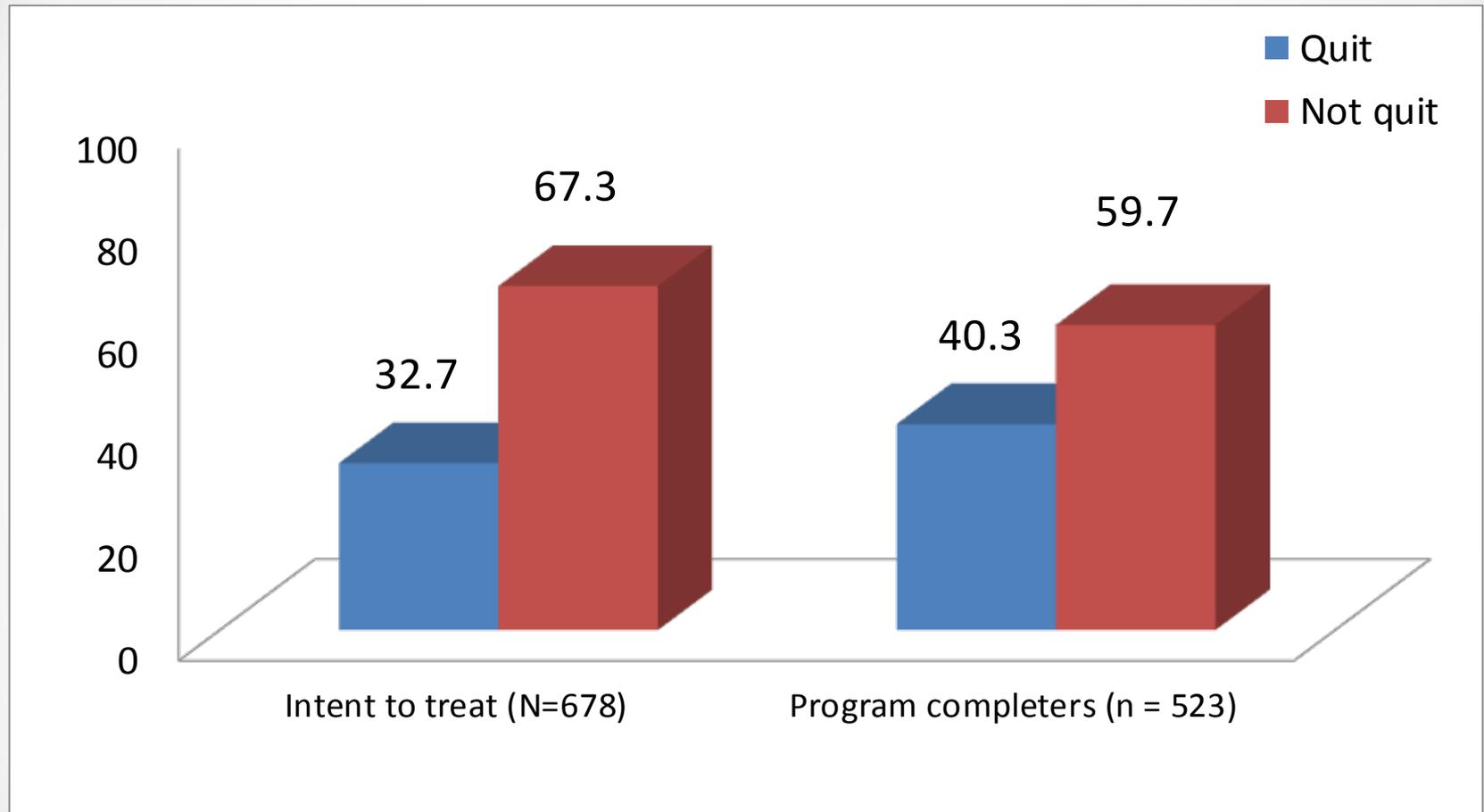
Sample Characteristics (N = 678, 57% male)

	Mean	Stand. Dev.
Age of participant (years)	48.0	11.0
Age at smoking initiation (years)	15.1	5.8
Importance of quitting (scale of 0 'low' to 10 'high')	9.0	1.4
Confidence in quitting (scale of 0 'low' to 10 'high')	7.2	2.4
Number of cigarettes smoked per day	20.4	10.3
Fagerstrom Test for Nicotine Dependence (scale of 0 'low' to 10 'high')	6.0	2.0
CO level at baseline (ppm)	20.9	14.2

Program Completion (n = 523/678)

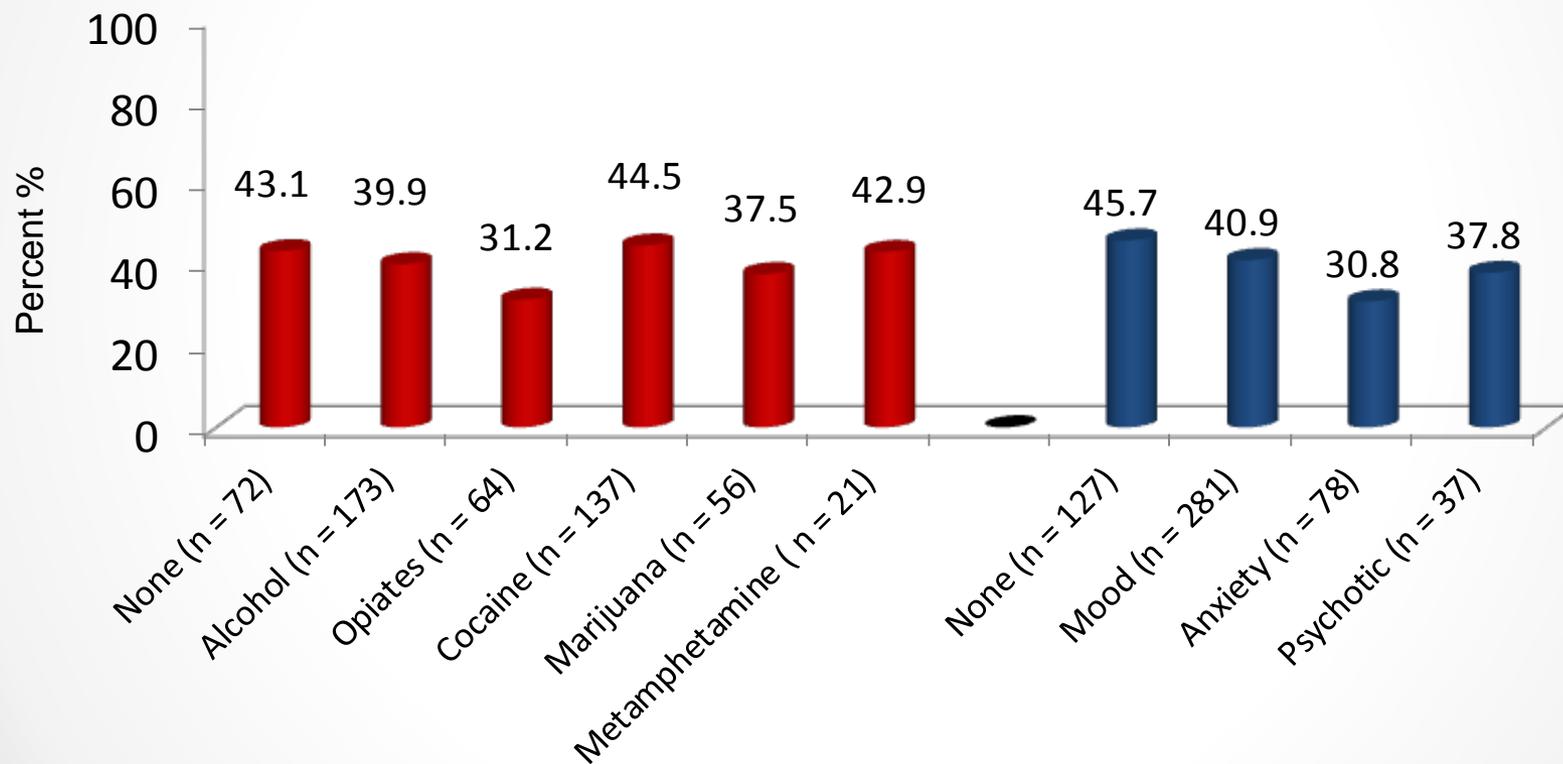


Smoking Cessation* Outcomes at end-of-treatment



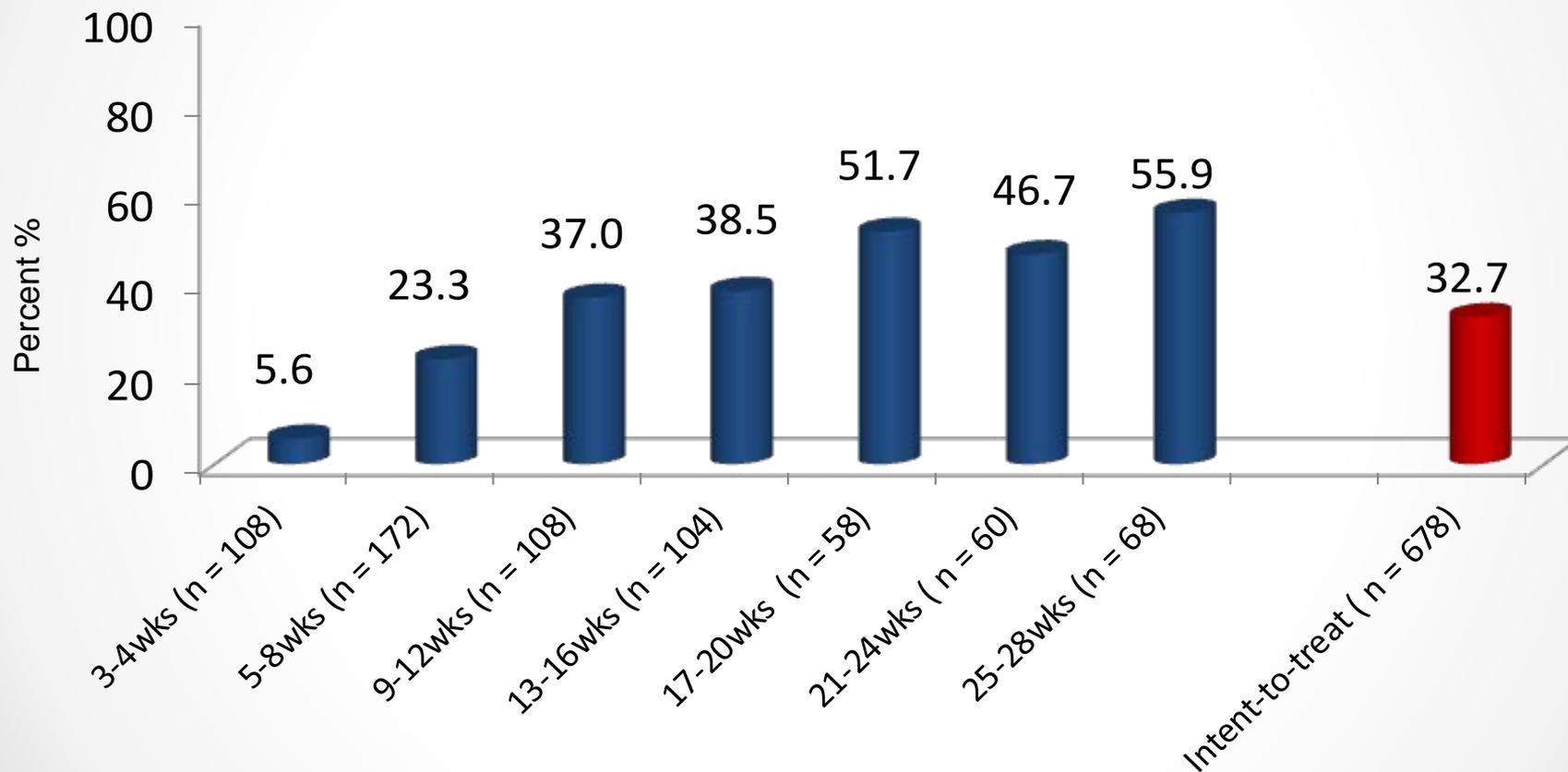
*Smoking cessation at end-of-treatment (i.e., anytime between 8 weeks to 26 weeks) verified by expired CO levels

Smoking cessation by SUD and PD among program completers (n = 523)*



* No statistically significant differences between groups

Smoking Cessation by length of stay in the program (n = 678)*



* Statistically significant differences between groups

Multivariate predictors^a of program completion (n = 674)

Predictors	Odds Ratio	95% CI
Gender		
Male (referent)	1.0	-
Female	1.78**	1.19-2.65
Age	1.03**	1.01-1.05

Hosmer-Lemeshow goodness-of-fit: $\chi^2 = 1.80$ (DF=8), $p = .986$

- a. Employing a two-step model building process in which variables associated with smoking cessation (at $\alpha < 1.0$) in the unadjusted analyses are included in a second-step for adjusted analyses. Only variables which were significantly predictive of smoking cessation in the final adjusted multivariate model are shown.

* = $p < .05$, ** = $p < .001$, *** = $p < .001$

Multivariate predictors^a of smoking cessation among program completers at end of treatment (n = 494)

Predictors	Odds Ratio	95% CI
History of Psychiatric Disorder		
None (referent)	1.0	-
Mood disorder	.90	.57-1.42
Anxiety disorder	.53*	.29-1.00
Psychotic disorder	.69	.31-1.57
FTND at baseline	.89*	.80-1.00
Number of Visits to the TDC	1.07***	1.04-1.10

Hosmer-Lemeshow goodness-of-fit: $\chi^2 = 3.45$ (DF=8), $p = .903$

- a. Employing a two-step model building process in which variables associated with smoking cessation (at alpha < 1.0) in the unadjusted analyses are included in a second-step for adjusted analyses. Only variables which were significantly predictive of smoking cessation in the final adjusted multivariate model are shown.

* = $p < .05$, ** = $p < .001$, *** = $p < .001$

Conclusions

- *The Tobacco Dependence Clinic provides an innovative model of tailored tobacco dependence treatment which combines behavioural counselling with no-cost pharmacotherapy for individuals with a history of substance use and/or psychiatric disorders for up to 6 months.*
- *With intensive tobacco dependence treatment provided within Mental Health and Addictions services, individuals with a history of substance use and/or psychiatric disorders are able to achieve smoking abstinence.*



Research Article

Open Access

Smoking Cessation Outcomes among Individuals with Substance Use and/or Psychiatric Disorders

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Abstract

Objectives: The population of individuals with substance use (SUD) and/or psychiatric disorders (PD) has a high prevalence of smoking and a consequent increase in tobacco-related morbidity and mortality when compared to the general population. The aim of this study is to examine the outcomes of a program in a real-life setting which takes a tailored approach to smoking cessation among individuals with SUD and/or PD.

Methods: A retrospective chart review of tailored tobacco dependence treatment was performed on individuals with histories of SUD and/or PD attending a Tobacco Dependence Clinic (TDC) program in Vancouver, British Columbia, Canada. Participants of the TDC received a combination of behavioural counselling and pharmacotherapy for smoking cessation. Data from 540 participants enrolled in the TDC between September 2007 and May 2011 was reviewed. Outcome measures included seven-day point-prevalence abstinence (validated by expired carbon monoxide) and program completion rates.

Results: For individuals who completed the program the abstinence rate was 41.1% (167/406). Significant predictors of successful smoking cessation were: a) a lower expired carbon monoxide level at baseline (OR=.98, 95%CI=.96-1.00), and b) a longer duration of treatment (OR=1.09, 95%CI=1.05-1.12). Significant predictors of program completion were: a) being female (OR=1.86, 95%CI=1.21-2.87).

Discussion: Tailored smoking cessation among individuals with SUD and/or PD yields modest end-of-treatment smoking cessation rates and can be an effective approach to reducing the burden of tobacco use in substance use and mental health treatment settings.