

The effect of prescriber, treatment, and client characteristics on retention in opioid agonist treatment: a 15-year retrospective cohort study

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AIM

This study aims to identify prescriber, treatment, and client characteristics associated with time in buprenorphine and methadone treatment for opioid dependence.

METHODS

Sample: 22,577 first-time opioid agonist treatment (OAT) clients (Aug 2001 - Dec 2015).

Outcome: Time in OAT, with an episode defined as continuous treatment with <7-day break.

Prescriber characteristics: Evaluated at the start of a treatment episode or where there was a change in prescriber mid-episode –

- Tenure of OAT prescribing,
- Number of other prescribers working in the practice, &
- Whether prescribing from multiple locations.

Client characteristics: Gender, age at first entry, Aboriginal/Torres Strait Islander, whether in a major city, & number of offences in year before first OAT entry.

Treatment characteristics: Medication type, year of first OAT entry, dosing point, & cumulative days spent in prior treatment episodes.

Analysis: Discrete-time survival analyses were conducted using generalized estimating equation models with person-day as the unit of analysis. All models controlled for time, episode, and the interaction of episode with time.

RESULTS

Improved retention observed among clients...

- Whose prescriber had a longer tenure of OAT prescribing compared to those whose prescribers had 0-3 years experience,
- Received dosing in a justice health setting compared to a public dosing point, and
- Who spent more time in prior treatment episodes.

Decreased retention observed among clients...

- Whose prescriber worked in a practice with other OAT prescribers compared to those whose prescriber was the sole OAT prescriber,
- On buprenorphine compared to methadone – though this effect varied by date of first OAT entry (see Figure 1),
- With more criminal offences in year prior to first OAT entry, and
- Who were younger at first OAT entry.

AFFILIATIONS

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Clients whose prescriber had a longer tenure of OAT prescribing or who were the sole OAT prescriber in the practice were more likely to be retained in OAT.

CONCLUSIONS & IMPLICATIONS

A longer tenure of OAT prescribing is likely to reflect a greater level of knowledge and experience which may result in an increased capability of recognizing and responding to clients' clinical needs.

Larger prescriber peer group sizes may indicate practices with a higher turnover of prescribers, which can present challenges to clients in both accessing and continuing their treatment.

Greater prescriber education, mentorship programs, and program quality monitoring are possible strategies to address both these aspects.

The Difference is Research

Table 1. Adjusted generalised linear model results for retention in all opioid agonist treatment (OAT) episodes (65,371 episodes)

	Level	Odds ratio	(95% CI)
Prescriber variables			
Tenure of OAT prescribing (Ref: 0-3 years)	4-7 years	0.87*	(0.85, 0.90)
	8-13 years	0.91*	(0.89, 0.94)
	14+ years	0.95*	(0.93, 0.98)
Number of other OAT prescribers in practice (Ref: Zero)	1-3	1.04*	(1.01, 1.07)
	4-9	1.09*	(1.06, 1.12)
	10+	1.05*	(1.02, 1.08)
Works in multiple locations (Ref: No)		0.99	(0.97, 1.01)
Treatment variables			
Buprenorphine (Ref: Methadone) ^a by year of first OAT entry	2001-2003	1.53*	(1.48, 1.59)
	2004-2006	1.56*	(1.50, 1.62)
	2007-2009	1.50*	(1.44, 1.57)
	2010-2012	1.45*	(1.37, 1.52)
	2013-2015	1.24*	(1.16, 1.32)
Cumulative days spent in treatment prior to current episode (log-transformed)	Methadone	0.95*	(0.95, 0.95)
	Buprenorphine	0.92*	(0.91, 0.92)
Dosing point (Ref: Public)	Private	0.98*	(0.95, 1.00)
	Justice Health	0.65*	(0.63, 0.67)
	Other	1.00	(0.90, 1.10)
Client variables			
Male		1.00	(0.98, 1.02)
Age at treatment initiation (Ref: 35+ years)	<25 years	1.14*	(1.12, 1.17)
	25-29 years	1.08*	(1.05, 1.11)
	30-34 years	1.04*	(1.01, 1.07)
Aboriginal and/or Torres Strait Islander (Ref: No)		1.06*	(1.03, 1.08)
Major city (Ref: Regional/Remote)		1.01	(0.99, 1.03)
Number of convicted offences in year before first OAT entry (Ref: Zero)	1-3	1.02	(0.99, 1.04)
	4-9	1.07*	(1.05, 1.10)
	10+	1.09*	(1.05, 1.14)

Figure 1. First episode retention rates for 3, 6, 12, and 24 months by treatment type and year of entry

