



Factors associated with dropout among patients in opioid maintenance treatment (OMT) and predictors of re-entry. A national registry-based study



Anne Bukten ^{a,*}, Svetlana Skurtveit ^{a,b}, Helge Waal ^a, Thomas Clausen ^a

^a SERAF, Norwegian Centre for Addiction Research, University of Oslo, Oslo, Norway

^b Department of Pharmacoepidemiology, Division of Epidemiology, Norwegian Institute of Public Health, Oslo, Norway

HIGHLIGHTS

- Both pre-treatment and in-treatment factors were associated with dropout from OMT.
- High levels of pre-treatment criminal offences were associated with dropout.
- Younger age and drug offences during treatment were strongly associated with treatment dropout.
- Drug offences during first OMT episode were associated with lower chance of treatment re-entry.
- Older age increased chances for re-entry.

ARTICLE INFO

Available online 28 May 2014

Keywords:

Opioid dependence
Opioid maintenance treatment
Retention
Dropout

ABSTRACT

Background: Retention in treatment is often highlighted as one of the key indicators of success in opioid maintenance treatment (OMT).

Aims: To identify factors associated with long-term retention in opioid maintenance treatment and to analyse predictors of subsequent treatment episodes.

Methods: Treatment retention and re-entry were examined for a national cohort of patients admitted to OMT in Norway in the period 1997–2003. Multivariate Cox regression models were used to investigate factors associated with treatment dropout 18 months after treatment entry.

Results: The 18 month retention rate among patients admitted to OMT in Norway ($n = 2431$) was 65.8% ($n = 1599$). Dropout from OMT within 18 months was associated with younger age (HR 0.97 [0.96–0.98]), high levels of general pre-treatment criminal offences (HR 1.66 [1.32–2.09]) and having drug-related offences during the 30 days prior to dropout (HR 1.80 [1.36–2.38]). Of the patients who dropped out ($n = 832$), 42.7% ($n = 355$) were re-engaged in subsequent treatment episodes. Pre-treatment criminal offences were associated with increased odds for treatment re-entry, whereas being younger and having drug-related offences during the first OMT episode were associated with lower odds for re-engagement in OMT. Gender was not associated with treatment dropout and re-entry.

Conclusion: High levels of pre-treatment criminal offences and drug offences during the 30 days prior to dropout were associated with treatment dropout. Efforts to increase support services to these patients may contribute to higher rates of retention in OMT.

© 2014 Elsevier Ltd. All rights reserved.

1. Introduction

Retention in treatment is often highlighted as one of the key indicators of success in opioid maintenance treatment (OMT) (Ball & Ross, 1991; Bell, Burrell, Indig, & Gilmour, 2006; Judson et al., 2010; Zhang, Friedmann, & Gerstein, 2003), emphasising the fact that adequate

long-term adherence to treatment services, both medical and psychosocial, is essential for therapeutic benefits to accrue.

Treatment compliance for drug dependence is generally poor, and although retention rates are normally higher in maintenance treatment than in other forms of substance abuse treatment, patients differ in the nature and duration of their engagement with treatment (Bell et al., 2006). Premature discontinuation of OMT presents major challenges to successful treatment outcomes and unexpected dropouts are associated with a number of risk behaviours. Studies have shown that newly discharged methadone patients often relapse into more drug use

* Corresponding author at: University of Oslo, SERAF, Norwegian Centre for Addiction Research, Kirkveien 166, N-0407 Oslo, Norway.

E-mail address: anne.bukten@medisin.uio.no (A. Bukten).

(Gossop, Green, Philips, & Bradley, 1989) and are at a high risk of overdose mortality (Degenhardt et al., 2009; Dolan et al., 2005) in the period following treatment dropout.

Research on factors that are associated with treatment dropout is essential. Earlier studies have investigated determinants of retention in OMT and concluded that both pre-treatment factors such as being male (Kelly, O'Grady, Mitchell, Brown, & Schwartz, 2011), being younger (Burns et al., 2009; Mancino et al., 2010; McHugh et al., 2013) and being involved with the criminal justice system (Kelly et al., 2011; Magura, Nwakeze, & Demsky, 1998), and in-treatment factors such as receiving lower doses of methadone (Caplehorn, Dalton, Cluff, & Petrenas, 1994; Mohamad, Bakar, Musa, Talib, & Ismail, 2010; Peles, Schreiber, & Adelson, 2006; Sarasvita, Tonkin, Utomo, & Ali, 2012), continued illicit drug use (Davstad et al., 2007; Peles et al., 2006) and alcohol use (Stenbacka, Beck, Leifman, Romelsjo, & Helander, 2007) have been associated with treatment dropout. However, with some exceptions (Burns et al., 2009; Davstad et al., 2007), this research is often hampered by being based on selective groups of patients (Kelly et al., 2011; Magura et al., 1998; Mancino et al., 2010; McHugh et al., 2013) and having inadequate follow-up time (Mohamad et al., 2010; Sarasvita et al., 2012).

Few earlier studies have investigated treatment retention in a complete national cohort of patients with no patients lost to follow-up over a longer period. Against this background, the main objective of this study was to investigate long-term participation in opioid maintenance treatment, with an 18 month follow-up, in a national cohort of patients. Further aims were to analyse factors associated with retention in treatment and factors associated with re-entry to OMT and to describe patterns of participation in subsequent treatment episodes.

2. Materials and methods

Nationwide registers on all patients ($n = 3221$) who entered OMT in the period September 15th 1997 until December 31st 2003 in Norway were cross-linked with official data from Norwegian crime statistics (Statistics Norway) using the unique identification number assigned by the Norwegian state to all citizens. The Norwegian crime statistics comprised detailed information of all cases registered by the police, including the date of the incident and details of the offence. The OMT patient records included information on age and gender, and the exact date of treatment entry and discharge. However, the register did not include data on general health status, social status or history of drug use. The data has been analysed previously, and a full description of the study settings and participants can be found elsewhere (Bukten et al., 2012; Havnes et al., 2012).

2.1. Study setting

In Norway, opioid maintenance treatment has been available at national level since 1998, and the system is based on specialised health care services at regional centres. The Norwegian programme comprises 14 centres which are all subject to the same national guidelines and the programme is integrated into the general health and social security systems (Skretting & Rosenquist, 2010; Waal, 2007). In the study period, patients applied to OMT on a standardised form via their social service centre, and applications were registered at the regional OMT centre (Waal, 2007). The Norwegian model can be characterised as rehabilitation-oriented (Waal, 2007), consisting of both non-medical interventions targeted at housing and other psychosocial aspects as well as the maintenance medication. The General Practitioner (GP) plays an important and integrated role. In 2010, 68% of patients were prescribed OMT medications by their GP although all treatment initiations were conducted at the regional OMT centres prior to transfer to GPs (Waal, Clausen, Håseth, & Lillevold, 2011). At the time of our observation period, the OMT programme could be considered as high threshold and restrictive. The criteria for admission specified that patients should be at least 25 years of age, dependent on heroin for several

years, and have experienced previous abstinence-oriented treatment, although interpretation of these criteria was not rigid (Waal, 2007).

New national guidelines, presented in 2010, are less strict and have no age limit. Currently the only absolute criterion for admission to treatment is opioid dependence, defined according to the ICD-10 or DSM-IV criteria. Throughout the last decade, the number of patients on opioid maintenance treatment in Norway has increased, and during 2010 it exceeded 6000 patients (Waal et al., 2011), which includes approximately half of the estimated 8600–12,600 problematic opioid users in Norway (Skretting & Rosenquist, 2010).

2.2. Participants and follow-up

The dataset included all patients ($n = 3221$) who entered OMT in Norway from September 15th 1997 until December 31st 2003. The study period, therefore, consisted of individual and varying observation periods; from individual inclusion dates until the last day of observation, i.e. the censoring date, December 31st 2003.

The stability of groups categorised according to retention could be vulnerable to patients who started OMT late in the study. Hence, the observation of patients engaged in the first episode of OMT was restricted to patients who had at least 18 months of continuous treatment ($n = 1599$) and patients who dropped ($n = 832$) out before reaching 18 months of continuous treatment. Those patients who had less than 18 months of treatment and the censoring date (31.12.2003) as their last observation date ($n = 790$), were excluded from all analysis (Fig. 1).

A total of 2431 patients were included in the 18-month observation period following the first OMT episode, including 33% ($n = 805$) women and 67% ($n = 1626$) men. At entry to OMT, men were significantly ($P < 0.001$) older (mean age 37.8, SD 6.5, range 22–60) than women (mean age 35.5 SD 6.3, range 20–57). Some patients ($n = 135$) died between the start of treatment and the last day of observation. Their observation time was censored at the date of death (ceased contributing to the person-days of follow-up).

2.3. Measures

“Treatment start” is the initiation of maintenance medication with either methadone or buprenorphine. Treatment dropout is defined as the first day of the period of discontinuing treatment in OMT. Termination of treatment could be either voluntary or involuntary. The absolute

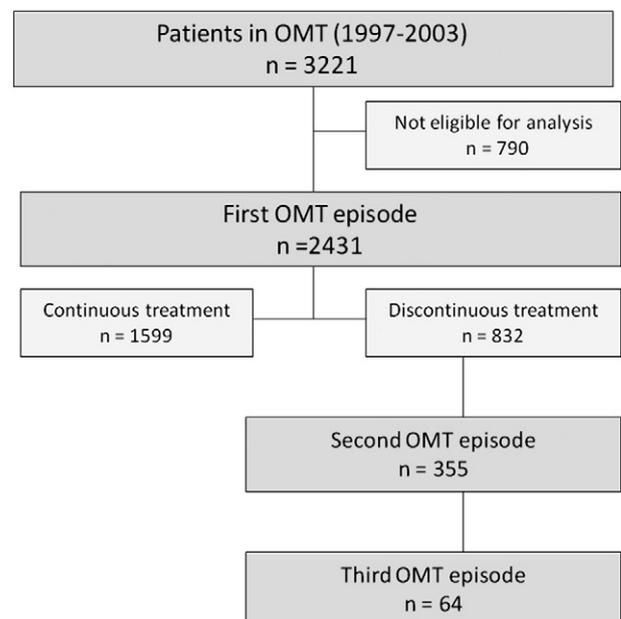


Fig. 1. Flow-chart of the Norwegian OMT-cohort (1997–2003).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات