Evaluation and Program Planning 49 (2015) 178–184

Contents lists available at ScienceDirect

Evaluation and Program Planning

journal homepage: www.elsevier.com/locate/evalprogplan

Drop-out from the Swedish addiction compulsory care system

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ARTICLE INFO

Article history:
Available online 18 December 2014

Keywords:
Drop-out
Compulsory care
Mortality
Sweden

ABSTRACT

Drop-out of addiction treatment is common, however, little is known about drop-out of compulsory care in Sweden. Data from two national register databases were merged to create a database of 4515 individuals sentenced to compulsory care 2001–2009. The study examined (1) characteristics associated with having dropped out from a first compulsory care episode, (2) the relationship between drop-out and returning to compulsory care through a new court sentence, and (3) the relationship between drop-out and mortality.

Methods: Multivariable logistic regression analysis was used to address Aim 1 and Cox proportional hazards regression modeling was applied to respond to Aims 2 and 3.

Findings: Age and previous history of crime were significant predictors for drop-out. Clients who dropped out were 1.67 times more likely to return to compulsory care and the hazard of dying was 16% higher than for those who dropped-out.

Conclusion: This study finds that 59% of clients assigned to compulsory care drop-out. Younger individuals are significantly more likely to drop-out. Those who drop out are significantly more likely to experience negative outcomes (additional sentence to compulsory care and higher risk of mortality). Interventions need to be implemented that increase motivation of youth to remain in compulsory care.

1. Introduction

Legislation to reduce substance misuse problems has been created in numerous countries since the early 20th century. The laws on compulsory commitment to care are applied to individuals who are by law mandated to enter and remain in such care. A survey of 38 European countries showed that 74% of these countries have a law concerning compulsory care (Israelsson, 2011). In Sweden in 1916, the first law on compulsory care for alcohol abusers was enacted and with some modifications, it is still in place (Edman, 2005). There are so-called special indicators that in addition to a high level of substance abuse make individuals eligible for compulsory institutional care including being a danger to other people or themselves, a failure to meet their familial obligations, being an economic burden to family or society, being a vagrant or otherwise getting into trouble, or having extensive drinking arrests (Edman, 2005). It took years until the recognition of laws on compulsory care which was historically based on social sanction was translated to laws on treatment. From the 1960s onwards, the role of treatment (medical as well as psychological or social therapy) was stronger in public discussions on social care with international recognition of alcohol and drug dependence syndromes as disease and its inclusion in the ninth version of International Classification of Diseases and Causes of Death (ICD-9) in 1976 (Edwards et al., 1977).

In Sweden when individuals are initially entering the compulsory care system, care workers aim to motivate each individual to enter voluntary treatment, while still being under the laws of compulsory care. As individuals move into to the actual addiction treatment system, drop out from treatment is relatively common. Individuals who dropout are not permitted to return to their homes, instead they are returned back to compulsory care. This study presented here is one of the first exploring client level factors associated with drop-out from the Swedish compulsory care system. Second, the study identifies if compulsory care drop-out is associated with repeated compulsory care sentencing and with higher rates of mortality.

1.1. Prior research on treatment drop-out

Prior studies examining addiction treatment outcomes show that treatment completion is one of the most important factors for

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http://dx.doi.org/10.1016/j.evalprogplan.2014.12.016
0149-7189/

favorable treatment result. Treatment completion may bring many positive changes for the client such as abstinence, lower crime rate, fewer relapses, gains in quality of life and satisfaction, symptom improvement, higher functionality in the community and family, improved social relations, and physical/emotional health and higher levels of employment (Holcomb, Parker, & Leong, 1997; McNeese-Smith, Faivre, Grauvogl, Warda, & Kurzbard, 2014; Perreaulta et al., 2010; Stark, 1992). The majority of previous studies on the effectiveness of treatment report outcomes for people who completed treatment. It should be noted that reporting treatment outcomes for people who completed treatment is not enough because treatment completion has been strongly associated with treatment outcome (Williams & Chang, 2000). Even though one of the efforts in treatment is to assist clients to complete treatment, drop-out, which is the term for failure to complete treatment, is common. The outcome for clients after they dropout from addiction treatment compared to their counterpart, clients who completed treatment, is unfavorable. Prior studies examining drop-out have shown an increased risk of relapse, legal problems, poorer health and readmission to addiction treatment (Goldstein & Herrera, 1995; Maddux & Desmond, 1992). Finally, treatment drop-out is costly: by reducing the likelihood of treatment completion it reduces treatment effectiveness, it contributes to crime, it may increase the spread HIV, and causes pain for relatives and other social relations (UNODC, 2012).

Prior research indicates drop-out rates from addiction treatment exceeding 50% within the first month (Stark, 1992), and most addicts and substance abuse clients are neither receiving adequate access to treatment, nor do they recover from their addiction (Brorson, Arnevik, Rand-Hendriksen, & Duckert, 2013). Given the established association between the length of time spent in treatment and treatment outcomes, these high drop-out rates are of serious concern and very problematic.

1.2. Individual level factors associated with treatment drop-out

The existing research on addiction treatment drop-out has identified a number of individual variables associated with treatment drop-out. It is common for clients who dropout from addiction treatment that they have a multi-problem characteristic such as low socioeconomic status, mental health problems, severe drug use pattern, history of criminality, low motivation level, and vulnerability regarding social relations. The findings from the review of literature on 362 studies identified a large number of patient factors correlated with dropping out from addiction treatment such as "younger age, female gender, socially isolated, lower socioeconomic status and motivation, more advanced stages of alcoholism" and "history of crime" (Baekeland & Lundwall, 1975; Brorson et al., 2013).

Among a number of individual characteristics, younger age is consistently related to drop-out (Brorson et al., 2013; Deck & Carlson, 2005; Simpson et al., 1997) but the relationship between other demographic characteristics including gender, race, marital status, employment, and income and treatment drop-out are inconsistent across studies (Deck & Carlson, 2005). Readiness for treatment, willingness to change substance use behaviors, and motivation for treatment are widely regarded as key factors in engagement in intervention programs and therefore improvement in retention (Booth, Corsi, & Mikulich-Gilbertson, 2004; Longshore & Teruya, 2006).

1.3. Risks associated with treatment drop-out

As suggested above there are numerous risks associated with treatment drop-out. This study specifically focuses on two such risks: likelihood of receiving a new sentence to compulsory care and mortality. Prior studies indicate that a strong predictor of treatment re-entry is drop-out, i.e., when clients do not complete prior treatment episodes (Amodeo, Chassler, Oettinger, Labiosa, & Lundgren, 2008; Brorson et al., 2013; Bukten, Skurtveit, Waal, & Clausen, 2014; King & Canada, 2004). However, there are studies showing that there is no difference in drop-out versus completing treatment and likelihood of treatment re-entry, the difference is that those who drop-out re-enter treatment within a shorter time frame (Beynon, Bellis, & McVeigh, 2006). Previous research regarding drop-out and mortality shows contradictory results, with some studies indicating a clear correlation between drop-out and mortality (Davoli et al., 2007; Degenhardt et al., 2009) while other studies do not find such relationship (Arendt, Munk-Jorgensen, Sher, & Jensen, 2013; Ravndal & Amundsen, 2010).

Our study presented here describes whether or not individuals who entered compulsory care between 2001 and 2009 who at their first compulsory care entry had a drop-out were more likely to return to compulsory care under a different compulsory care sentence. It also will describe whether or not those who entered compulsory care between 2001 and 2009 who at their first compulsory care entry had a drop-out were more likely to be deceased.

1.4. Overall aim and research question

The current study's first aim is to identify and describe different client groups at risk of drop-out (and its determinants) from the Swedish compulsory care system. The second aim is to examine whether there is an association between having dropped out from a first compulsory care episode between 2001 and 2009 and likelihood of having a second separate compulsory care sentence. The third aim is to examine whether having dropped out from a first compulsory care episode between 2001 and 2009 is associated with mortality.

2. Materials and methods

2.1. Register databases

In Sweden the government through the National Board of Institutional Care (SiS in Swedish, Statens institutionsstyrelse) uses a client administrative database (KIA) as a register database of all intakes to compulsory care and DOK (documentation systems in addiction treatment) the instrument for baseline assessments and documentation for adults convicted to compulsory care for addiction. The data from these registers are entered into a database that SiS has responsibility over. The KIA and DOK data (2001–2009) have been merged with data from the Swedish National Death Registry (2001–2011) at an individual level using a de-identified person identification number. The researchers do not have access to any identifiable information regarding any individual in the study.

2.2. Population

The population in the study was individuals who had been mandated to enter compulsory care for substance abuse between 2001 and 2009 and who had given their written consent to participate in research to SiS during their assessment interview at the intake. A total number of 4515 individuals were included in the database, representing approximately 90% of the 5007 clients who received compulsory care for addiction between 2001 and 2009.

2.3. Defining the exposure: drop-out

Given that compulsory care can last up to six months (Gerdner & Berglund, 2011), we considered a six months window to classify clients as drop-outs or completers, ensuring a comparable time