PREDICTORS OF RELAPSE AMONG CLIENTS UNDERGOING OPIOID SUBSTITUTION THERAPY (OST) IN THE UNITED KINGDOM.

INSIGHT FROM A NHS-COMMISSIONED CHARITY SECTOR PROVIDER SETTING

Oladapo Babatola [1] and Ken Checinski [2]
(1) Shepway CMHSOP KMPT (2) Regional Lead, CGL

Introduction

It is well known that the use of opioids such as heroin and cocaine are one of the most serious social and health problems in the world and it has been estimated that about 0.4% of the global population is using opioid substances (Home Office 2016). The overall trend in the proportion of adults taking an illicit drug in the UK last year has been essentially stable at between 8% and 9% per cent since 2009/10 (NDTMS 2016). In the USA, it has been estimated that the use of illicit substance results in about $700 billion annually in costs related to crime, lost work productivity and health care (Mitchell et al, 2011, Degenhardt et al , 2014). There is a gradual global increase in overdose deaths attributable to substance misuse which is a worrying sign and reasons varies from the purity of substances, period of abstinence, mental and physical health problems to name a few(Degenhardt et al., 2014).

In England, there were 295,224 adults using Drug and Alcohol treatment services in 2014 to 2015. Opiates (such as heroin) were the most common substance (152,964 adults)(NDTMS 2016). Men make up the majority of people presenting for treatment for opioid dependence (Peles et al, 2008, Mictchell et al 2009, Matto et al., 2009). The age profile of the group accessing treatment services is rising, suggesting that older people with long-term dependence on opiates (mainly heroin) account principally for those people requiring such services.

In 2014, there were a total of 3,346 deaths in England and Wales related to drug poisoning, the highest since comparable records began in 1993 and the numbers are still on the rise. 2,248 (67%) related to illegal drug use (Gibson et al., 2008). Heroin and/or morphine were mentioned on the death certificate in 952 deaths and cocaine was mentioned in 247 deaths (Home Office 2016). Also in the England and Wales, in 2014/15 statistics revealed that around 1 in 12 (8.6%) adults aged 16 to 59 had taken an illicit drug in the last year. This equated to around 2.8 million people. This level of drug use was similar to the 2013/14 survey (8.8%), but significantly lower than a decade ago (11.2% in the 2004/05 survey). It was noted that around 1 in 5 (19.4%) of young adults aged 16 to 24 had taken an illicit drug in the last year (Home Office 2016). This proportion was more than double that of the wider age group, and equated to around 1.2 million people. 1 in 20 (4.7%) adults aged 16 to 59 had taken an illicit drug in the last month, while one in ten (10.2%) young adults aged 16 to 24 had done so (Home Office 2016).

Neither proportion has changed significantly compared with the 2011/12 statistical survey. Just over one-third (34.7%) of adults aged 16 to 59 had taken drugs at some point during their lifetime. This was similar to the 2013/14 survey estimate (35.7%) (Home Office, 2016). It was estimated that between 26.4 million and 36 million people abuse opioids worldwide, (Home Office, 2016), with an estimated 2.1 million people in the United States suffering from substance use disorders related to prescription opioid pain relievers in 2012 and an estimated 467,000 addicted to heroin (American Society for Addiction). The consequences of this abuse have been devastating and are on the rise.

Recently, the Office for National Statistics released a statement noting that last year heroin and morphine related deaths decreased for the first time since 2012, while cocaine deaths rose. In total, 3,756 people were recorded as dying from legal and illegal drugs in England and Wales in 2017 with only 12 more deaths than the previous year (2016). Two thirds of these deaths were accidental, related to drug misuse and the number of

fentanyl deaths increased from 58 in 2016 to 75 in 2017. This drug has been found to be mixed with heroin, causing accidental overdoses in users. The most dangerous version of the opioid, known as carfentanyl, was behind 27 accidental fatalities during the year - the first time it has been recorded in death certificates (Office for National Statistics, 2018). Demographic, as well as socioeconomic factors, can predispose an individual on opioid substitution therapy (OST) to relapse. This ranges from one episode of relapse in one year to several episodes. This the aim of this study is to investigate which of these factors significantly contributed to relapse in these clients when compared to other factors.

Method

This is s retrospective study sourcing data from the electronic data system of CGL across three sites in West Kent– Maidstone, Tonbridge and Gravesend. A total of 1464 clients were recruited into the study from the ages between 18-65 years between 2013-2015. Treatment Outcome Profile Scores (TOPS) as the primary objective outcome was reviewed and associations and correlations was investigated based on it 4 domains. All patients outside this age range were excluded from the study.

This study employed a logistic multivariate regression method, which was used to measure the probability of each explanatory variable to predict the outcome variable. The outcome measure for this study is the variable, which represents relapse in patients undergoing treatment during the year 2013-2015 with this NHS-commissioned service provider.

Results

The descriptive statistics showed that our sample consists of relatively young individual people, with a mean age for both sexes of 40.81 (SD, 10.738, OR- 0.963, S.E- 0.005) years (ranges 18 to 65 years). Factors influencing relapse are age at presentation, marital status, mental health issues, employment and age at first injecting/age at first opiate use. Moreover, the probability of relapse increases by 3.7% for each additional year of age. Those formerly in a same-sex civil partnership now legally dissolved, or who are single are 57.7% more likely to relapse compared to those with other marriage statuses. Disability and gender do not have any predictability power for relapse in this study.

Bivariate analysis and Pearson coefficients for age and alcohol units:

Table 1

Correlations

		Age	First Injected Age	Alc. Units
Age	Pearson Correlation	1	-.012	.140**
	Sig. (2-tailed)		.148	.000
	N	1464	1464	1464
First Injected Age	Pearson Correlation	-.012	1	-.257**
	Sig. (2-tailed)	.148		.000
	N	1464	1464	1464
Alc. Units	Pearson Correlation	.140**	-.257**	1
	Sig. (2-tailed)	.000	.000	
	N	1464	1464	1464

Findings & Conclusion

Continuing education of clinicians beyond their initial training, the need for clinicians to assess and address comorbid conditions, such as mood disorders and other substance use and the need to carefully put in place care and recovery management plans that will go a long way in reducing relapse in both outpatient and inpatient clinical settings. There is need for a prospective study which will take into consideration more factors and associations to reduce bias and errors. It has highlighted some key predictors which can serve as risk factors (which can be considered during risks assessments at the initial presentation to the service) to prevent further relapse and enable this clients to achieve and maintain abstinence to be able to focus well on the recovery phase. The important role of wider benefits must be emphasized to these clients at presentation.

Conflict of Interest Statement

CGL allowed the use the organisation data free of charge in completing this work for which we are really grateful for.

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6. National drug treatment monitoring system (NDTMS) 2016.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Odds Ratio
Step 1a Age	-.038	.005	54.245	1	.000	.963
Gender	-.035	.088	.155	1	.694	.966
Marital Status	-.860	.226	14.535	1	.000	.423
Accom.Status	2.581	14419.729	.000	1	1.000	13.210
Disability	4.026	17564.055	.000	1	1.000	56.035
Mental Health Issues	.336	.102	10.928	1	.001	1.400
Unemployment	.840	.312	7.240	1	.007	2.317
First Injected Age	.077	.003	526.399	1	.000	1.080
Alcohol Use	.005	.005	.919	1	.338	1.005
Asso Drug Use	-.511	18125.820	.000	1	1.000	.600
Latest TOP Treatment	.154	.081	3.571	1	.059	1.166
Constant	-83.750	26734.466	.000	1	.998	.000

a. Variable(s) entered on step 1: Age, Gender, Marital Status, Accom.Status, Disability, Mental Health Issues, Employment, First Injected Age, Alcohol use, Associated Drug Use, Latest TOP Treatment,