

The need for further oral health research surrounding the provision of dental treatment for people with drug dependency

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Key points

Highlights that those with drug dependency are an often overlooked cohort in society but their high oral health needs mean that they should not be.

Highlights the barriers to primary care that people with drug dependency face so that professionals who work in primary care may have a better appreciation of the problems this cohort faces.

Suggests there is a need for further research in the UK so we can aim to develop a realistic service model that is beneficial to people with drug dependency.

Abstract

The aim of this article is to highlight the need for further research in providing dental care for people with drug dependency. The association between people who misuse substances and dental disease is widely known occurrence, yet there have been few studies conducted in the UK surrounding this issue due to the nature of the cohort. Further to this, there are a multitude of barriers to accessing/seeking dental care that exist for those with drug dependency. Going forward, there is a need for the development of a new service model where dental care is part of a multidisciplinary team working towards treating people with drug dependency in a holistic way.

Introduction

The origin of this article lies in one of the author's wider review of the literature on the stigmatisation of people with drug dependency, which identified interventions to improve users' dental health and appearance as a way to decrease stigmatisation and aid social integration.^{1,2} Conference debates and discussions with the UK Drug Policy Commission, the drug treatment sector and recovering drug users have all confirmed the centrality of this issue for drug users' wellbeing and recovery.

What is the problem?

The association between opiate use and dental disease has been empirically evident since studies undertaken in the 1970s. In the year

2016–17, 8.5% of adults in the UK had taken an illicit drug at least once; 3% of this figure has been the use of a class A drug.³ It has been found that people with drug dependency who are in contact with drug dependent services in the UK most commonly misuse opiates.⁴ A rigorous review of the literature on the dental health of people with drug dependency, comprising of database searches, followed by reference list snowballing, demonstrates clear evidence of poor dental health among this cohort in Australia,^{5,6,7} the USA,^{8,9,10,11,12} France,¹³ the Netherlands,¹⁴ China^{15,16} and Bangladesh.¹⁷ However, limited research has been undertaken in the UK. One quantitative study has compared self-reported oral health problems among 125 methadone users attending pharmacies, compared with a sample of regular pharmacy attenders. A significantly higher proportion of opioid users reported dental problems.^{18,19} Another study of self-reported dental problems among those with drug dependency in treatment found 68% of a sample of 63 service users reported current dental problems.²⁰ The majority of interviewed people with drug dependency in two qualitative studies in England also reported high levels of dental problems.^{21,22}

The majority of the international quantitative studies referred to above compared opioid users with comparison groups and there appears to be a particular association between opioid drug use and poor dental health, including caries, periodontal disease, mucosal dysplasia and tooth surface loss. One suggested reason for this association is the xerostomic effect of opioids compounded with poor nutrition, cravings for sweet foods, consumption of methadone syrup, poor oral health behaviour and lack of access to (or take up of) dental care.^{10,18,19,23} Another factor that can maintain the link between poor dental health and opioid drug use is the analgesic effect of the drugs; people with drug dependency reportedly continue to use opiates to self-medicate for dental pain.^{9,21}

Despite widespread and serious oral pathology, opioid users are considerably less likely to access oral health services than the general population.^{8,9,10,18} People with drug dependency tend not to access primary dental care due to the chaotic and preoccupied nature of their lives,^{18,21} which also tends to preclude them from accessing primary health care more generally.²⁴ People with drug dependency also report high levels of dental fear including, ironically, needle phobia.^{20,25} This results in

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them frequently appearing in secondary care to receive treatment via sedation.^{24,26} However, even when people with drug dependency do seek primary dental care, problems frequently occur. In a study carried out in London, opioid users reported high levels of difficulty in registering with a dentist and being refused access to treatment.¹⁸ The researchers found that the reasons given by those with drug dependency were evenly split between those that could be regarded as discriminatory (for example, 'because of methadone was refused access') and others that appeared valid (for example, 'being late for appointment'). Other barriers to seeking dental care may also include having feelings of stigmatisation and embarrassment of their current oral problems. Keeping appointments is a major issue for people with drug dependency seeking to avoid withdrawal,²¹ and their tendency not to reappear is one of a number of factors that can make dentists reluctant to treat this group of patients.^{18,27} Other factors include concerns surrounding risk of infection with hepatitis C and other blood-borne viruses, as well as people with drug dependency seeking opioid pain relieving drugs by deception.¹⁸

Why is this relevant to the NHS?

Globally, people with drug dependency have been estimated to account for 20 million disability-adjusted life years (DALYs) in 2010, representing 0.8% of all-cause DALYs.²⁸ In the UK in the same year, drug use disorders accounted for 384,000 DALYs.²⁹ People who misuse substances are less likely to access primary health care, including dental care, and are more likely to attend hospital emergency departments; this is likely to increase the burden on the NHS budget. The annual overall cost to the NHS of providing general health treatment of drug misuse-related problems and treatment of drug addiction for people with drug dependency is estimated at £488 million.^{24,26} The estimated net benefit to cost ratio (2.5:1) of rehabilitating people with drug dependency clearly shows the importance of drug users accessing health care to alleviate the burden on public funding.³

Inequality in oral health across the country is a strong current policy concern.³⁰ The research evidence clearly identifies people with drug dependency as a very high-need group, a large proportion of whom are failing to access primary dental care. Akin to general primary health care, lack of early dental intervention is associated with an escalation of dental

disease, which can result in those with drug dependency appearing at hospital emergency departments.^{10,24,31} Binks *et al.*,²⁶ in their study of an inner city emergency department, found that 6.9% of all patient attendances were directly or indirectly related to illegal drug use. While evidence is limited, some of the attendances are likely to have involved dental problems. One study of 598 injecting drug users in Vancouver found dental problems to be the eighth most common presenting problem, involved in 94 admissions for this group.²⁴

Research has also drawn attention to the potential for dental treatment on people with drug dependency to contribute to the formation of a non-addict identity and thereby aid the process of social reintegration and recovery.²¹ Qualitative research has demonstrated the impact of visibly poor teeth on the lives of people with drug dependency, contributing to low levels of self-esteem and high levels of stigmatisation.² People with drug dependency talk of feeling very self-conscious and avoiding smiling.^{22,25} Commentators have also referred to poor teeth as being an obstacle to employment and forging relationships outside drug user networks. By contributing to social reintegration and recovery, dental services for people with drug dependency have the potential to impact on their future substance use and their wider wellbeing, with associated reductions in the use of health services.

Future need

Based on the aforementioned literature available, people with drug dependencies require a holistic approach to their health and care needs, requiring a multidisciplinary approach with dentistry being an integral part of this. A shift towards a more collaborative approach in the treatment of this cohort is required.

It has therefore been suggested that traditional patterns of dental registration with dentists who are paid per unit of dental activity are not suitable for people with drug dependency. Dentists may be unwilling to accept these patients whom they fear may not complete treatment, causing them to lose valuable time and income.²¹ This has led to attempts to develop dental services specifically tailored to the needs of this patient group, two of which studies have been in the UK.^{20,32,33} Hare *et al.*³³ describe a pilot project in which two dental drop-in clinics were arranged to coincide with shared care clinics for addiction service users (the majority of whom were

on methadone prescriptions). Charnock *et al.*²⁰ describe a similar approach, with the development of a weekly dental service for those with drug dependency designed to coincide with the prescribing of methadone and other medication. Forty-three (46%) of the 93 drug users found to need clinical care completed a course of treatment. Treatment completion varied greatly across type of dentist, with 20% completing care with a general dental service (that is, in a dental practice), compared to 74% of those attending a personal dental service (that is, provided alongside drug dependency treatment). Moving forward, evidence-based practice is key to understanding the needs and wants of people with drug dependency, with respect to both dental and general health. It is also important to understand how dentistry will fit within the multidisciplinary team.

It is clear from the limited UK research and the wider international literature that people with drug dependencies represent a particularly high need group with respect to dental health. However, there is not a single clinical study of the dental health of people with drug dependencies in the UK and so the scale and nature of their problems are largely uncharted. While there have been several attempts to pilot dental services specifically tailored to the needs of this cohort, these have been isolated and unevaluated developments. We therefore consider there to be a pressing need for research and development in two areas: first, epidemiological research on the size and nature of the problem; and second, evaluative research which trials a new approach to delivering dental care to people with drug dependency that is acceptable to the target group and financially viable for the NHS.

One necessary step that is needed is to develop an evidence- and theory-based multidisciplinary service model pertaining to dental services. In order to do this the authors are planning research to explore the following questions:

1. What is the extent and nature of dental problems experienced by people with drug dependency in the UK compared with general population norms?
2. What do people with drug dependency perceive to be the main barriers to accessing dental care?
3. How are dental services and support networks best designed to meet the needs of people with drug dependency and enable them to receive treatment?

4. What are the wider impacts on drug use, self-esteem and social reintegration?

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