Oral health behaviours amongst homeless people attending rehabilitation services in Ireland

Statement of the problem: Research on oral health behaviours and dental care service uptake of drug users and those in recovery remains scant.

Purpose of the study: The research aimed to explore and describe perspectives of drug users on their oral health behaviours, awareness of oral health complications caused by alcohol, cigarette and drug use, dental service uptake and opinions on improved dental service for active and recovering addicts.

Materials and methods: Two focus groups with a purposeful sample of participants (n=15) were conducted in two treatment and rehabilitation settings. The semi-structured guide consisted of open questioning relating to dental access and uptake, oral health, awareness of oral cancers, nutrition and substance consumption on oral health, and opinions around optimum oral health and dental service provision for active drug users and those in recovery. Thematic analysis of narratives was conducted.

Results: Participants described barriers to access and uptake, poor levels of preventative dental care, DIY dentistry in the event of dental emergencies, substance use to self-medicate for dental pain, mixed awareness of the effects of sugary products and substance use on oral health and cancers, and emphasised the importance of preventative dental care and dental aesthetics when in recovery.

Conclusions: Findings illustrate a profile of oral health behaviours in Irish drug users, with information useful for private and public practice, and in the further development of street, community and treatment setting oral health interventions.

Keywords
Oral health; dental health; addiction; dependency; qualitative.
Introduction

Oral health forms an integral part of an individual’s physical health and well-being. Abuse of tobacco and alcohol products, combined with drugs, worsens oral disease and contributes to oral complications. Consumption of licit and illicit drugs has been recorded amongst active drug users for dental pain management. Research on oral health needs and health care access among active drug users and those in recovery remains scant, with studies confined to the reporting of prevalence of oral cancers, brushing habits, snacking, and recent visits to a dentist. Poor oral health among users of illicit drugs is exacerbated by associated lifestyle factors in terms of personal hygiene, lack of tooth brushing, smoking, irregular eating patterns, consumption of sugary products, irregular dental visits, and chronic malnutrition. It also results from direct physiologic, drug-related effects, such as reduced salivary function. Social and behavioural factors relating to socio-economic status, oral hygiene, and childhood dental visits further complicate oral health status. Concerns around dental appearance, missing, broken or loose teeth, dental erosion, caries, and bruxism have been reported amongst injecting drug users.

Despite the association between illicit drug use, and particularly injecting drug use of opiates, low levels of users accessing oral health services have been reported. Research underscores general low uptake of preventative care services among injecting drug users, given the high rates of associated complications and the need for outreach and outpatient primary care services. Improved dental and oral health is contributory to physical and psychological well-being within the recovery continuum, with poor dentition, related lowered self-esteem, and poor uptake of oral health services associated with poor treatment outcomes. Successful oral health promotion activities situated in rehabilitation settings offer promise in the facilitation of health behaviour change.

In 2006 in Ireland, the estimated national prevalence of opiate users was between 18,136 and 23,576 (with a point estimate of 20,790). In 2007, 11,538 cases were treated for methadone maintenance treatment, with an estimated 8,983 users not known to the services. A purposeful sample of participants (n=15) was recruited from two detoxification, treatment and rehabilitation services for homeless men and women. Ethical approval for the study was granted by the Waterford Institute of Technology Ethics Committee. Participants were provided with information regarding the research aim, confidentiality assurances, written and verbal consent, audio recording of the focus group(s), and the right to withdraw from the focus group(s) at any stage. This information was repeated by an author (EH) prior to commencement. Each participant provided written and verbal consent to partake, and all were provided with toothbrushes, toothpaste, and dental floss (courtesy of Colgate, Dental Medical Ireland (DMI), and Sensodyne). The semi-structured guide was developed in consultation with the extant literature, the treatment centre co-ordinators, and with the expertise of the second author (EH) - a dental nurse. The semi-structured guide consisted of open questioning relating to dental access and uptake; oral health; awareness of oral cancers, nutrition and substance consumption on oral health; and opinions around optimum oral health and dental service provision for active drug users and those in recovery. Questioning was kept neutral by actively inviting all participants to share their opinions, in a non-judgmental manner so as to reduce bias and optimise on accurate data retrieval. Focus group narratives were transcribed, with the resultant combined text analysed thematically using NVivo 8, a qualitative text analysis software package. The text data set was read and reread several times by both authors, in order to identify and code the concepts found in the data, organise the concepts, explain any data outliers, and develop the final thematic presentation of findings.

Results

Participant ages ranged from 20 years to 56 years, with six participants engaging in detoxification and nine participants currently in rehabilitation. Three participants were engaging in methadone maintenance treatment.

**THEME ONE: Access to and uptake of dental care**

Roughly half of participants described themselves as routine dentist attenders during childhood. Two participants reported that their dental visits were confined to dental cleaning and for the extraction of blackened teeth.
"I was only at the dentist three times in my whole life. Two of those times were for a clean and polish."
Participant two, male, age 31 years.

Some participants described ‘symptomatic attendance’, by only attending the dentist when experiencing toothache or when necessitating dental extraction, with the majority observing how poor personal dental care was exacerbated by substance abuse and dependence in the past.

"I was never one to mind oral hygiene."
Participant one, male, age 40 years.

"I didn’t really have a problem with ‘em, I’d only go if they were sore."
Participant three, male, age 26 years.

"I’d no problems with me teeth. I’d only go to the dentist if I needed an extraction."
Participant six, male, age 48 years.

Barriers to dentist visits were described as relating to lack of medical card, lack of money, and presence of a continued substance dependency problem. Current rates of dentist attendance ranged from zero to two times in the past twelve months, with participants describing their last previous routine screening, ranging between last week and five years previous. Some comments were made around fear of needles and use of rubber gloves in the dental surgery, and that this deterred participants from attending for routine check-ups. Some negative observations were made around medical card dentists.

"I don’t like people sticking needles in me and the rubber gloves are a funny taste in my mouth."
Participant seven, male, age 40 years.

"I’m afraid of the dentist, the needles scare me. I use needles, but I don’t like those big needles you stick in your gums."
Participant 11, male, age 46 years.

Many comments were made around the importance of access to dental care when in recovery, having a relationship with your dentist, and the presence of a dental practice located onsite in treatment and rehabilitation settings.

"Yes most places want medical cards and here people are only starting to get out of their addiction, and the teeth start to matter and it would be very good if they could have it here."
Participant one, male, age 40 years.

"I think it would be a good idea having one here, to encourage people to take care of their teeth."
Participant 13, female, age 39 years.

**Theme Two: Dental care**

Levels of dental care in terms of brushing and flossing teeth were described by most participants as neglectful in the past, with some participants never brushing or flossing their teeth when in active addiction. Some comments were made around use of toothbrushes to attempt to knock off plaque, and the use of alcohol as mouthwash. Frequency of brushing and flossing when in the treatment and rehabilitation service setting had greatly improved, and ranged from once to four times a day. No participants reported flossing their teeth, either in the past or currently, with some participants reporting use of toothpicks instead. Comments were made around bleeding gums when attempting to insert toothpicks between teeth.

When questioned around the occurrence of oral health issues or dental emergency, some participants described the immediate making of appointments at their dentist, with others reporting delaying dental visits by the administration of toothpaste into the dental cavity to reduce pain, the self-medication for dental pain with painkillers (i.e., Nurofen), and the consumption of excessive levels of alcohol, prescribed and illicit drugs to escape the pain. Two participants without medical cards described doing nothing.

"I’d wait until the last minute. I’d be in agony and I’d use that as an excuse to get mad out of it, because it would take the pain away for a while."
Participant five, male, age 26 years.

"Depends on how bad it is. I go to a doctor and if he says go to a dentist, I’ll go. But I go to the doctor first for painkillers. I don’t like dentists."
Participant seven, male, age 40 years.

When probed around DIY dentistry in the event of a dental crisis, some participants described scraping tooth stains and plaque from their teeth with sewing needles and toothpicks, and attempts to extract teeth with pliers, or by tying the affected tooth to a closing door.

"I did it once with a door. I scrape them sometimes with a sewing needle to get the dirt out."
Participant four, male, age 20 years.

"Yes, with a pliers. And a string on the door. Me tooth cracked and broke so I took the rest of it out."
Participant seven, male, age 40 years.

**Theme Three: Dental state**

Current dental state and oral health were described as important to participants, with many participants regretting their prior neglect of teeth and oral health, reflecting on their subsequent loss of confidence, and emphasising the importance of personal outer and dental appearance to them now when in recovery.
"It is very important to me now as I am finished my addiction. I realise they are important as I am missing lots of me back molars and it is hard to chew food... it builds peoples' confidence to smile again. I think everyone is laughing at my teeth."
Participant one, male, age 40 years.

"My teeth are very important for my physical appearance. My teeth are now getting crooked and I might be getting braces."
Participant three, male, age 26 years.

Many comments were made around missing, decayed, and discoloured teeth. The majority of participants reported tooth loss ranging from one tooth to 12 teeth. One participant described avoidance of smiling so as not to draw attention to his discoloured and absent teeth. Some reported intending to receive fillings and teeth whitening in order to improve their aesthetics.

"I am aware of them missing and it's a horrible feeling. There's so many missing."
Participant one, male, age 40 years.

"The lowers are all stained and they look like they are gonna fall out. Have just half a tooth too. I need to have teeth out and I don't want to get them out. I'm missing so many already."
Participant four, male, age 20 years.

For the participants with children, personal neglect of dental care, and awareness of repercussions, resulted in strong motivations to teach good dental care (brushing, reduced sweet consumption, and routine check-ups) to their children.

"It will impact on them as I'm gonna make sure they floss and look after them properly and I'll bring them for six monthly check ups as well, and so our children won't have to suffer."
Participant one, male, age 40 years.

"All my kids have lovely teeth, they brush them every day, and if there is something wrong I bring them straight to a dentist. Their teeth are perfect."
Participant 12, male, age 46 years.

Only half of participants reported awareness of alcohol's potential to increase tooth decay and demineralise tooth enamel.

"Yes, I knew drink would fuck them up, but I didn't know about the enamel. I suppose it's the same as fizzy drinks."
Participant four, male, age 20 years.

"I knew it was bad for your teeth, but I didn't know it did that much damage."
Participant seven, male, age 40 years.

All participants reported current rates of smoking, with age of onset ranging from 10 to 23 years. All participants, with the exception of two, reported awareness that tobacco can cause a wide range of oral problems, such as delayed wound healing, sinusitis, soft tissue damage, and gum disease. Some awareness of oral cancers relating to tobacco was described. In terms of licit and illicit drug use, participants described use of opiates, cannabis and stimulants, with many partaking in poly substance use. All participants were aware of dry mouth caused by drug use, but many were unaware of the causal impact on tooth decay.

"Yeah, that's what melted my back teeth - sucking on tablets. Benzos [benzodiazepines], they wrecked my teeth."
Participant five, male, age 26 years.

Discussion
The study, despite its small scale nature, presents a unique insight into the oral health behaviours of some recovering addicts attending treatment in Ireland. Findings cannot be deemed representative of the Irish situation, but do present illustrative and, to date, undocumented accounts of drug user dental histories and interplay with drug and alcohol dependence. Of concern is that only half of participants reported routine dental visits as a child and thereafter, despite evident strong current motivations to teach good dental care in their own children.

The study's findings are supported by other studies, which indicate the low uptake of dental services amongst individuals experiencing problematic alcohol and drug use, addiction, and those without permanent accommodation. Barriers to dental services included lack of money or medical cards, and chaotic lives when actively misusing alcohol and drugs. Similar to Robinson and Acquah, participants described anxiety relating to fear of needles and gloves. Levels of dental care in terms of brushing teeth and flossing were described by most participants as neglectful in the past, with some participants never brushing or flossing. Many participants were regretful of their prior neglect of teeth and oral health. Similarly, Gray has described how self-consciousness and guilt around dental neglect impacts on the recovering addict's self-perception, and potential for employability, and stated “their teeth are a beacon to their drug past”. Similar to the extant literature, participants reported dental and oral health problems, which included: missing,
broken or loose teeth; dental erosion; caries; gingivitis; and, bruxism, with cases of DIY dentistry in the form of tooth extraction, use of alcohol as mouthwash and the scraping of teeth with toothpicks described, alongside the use of substances and toothpaste to medicate for pain in the event of dental emergencies. Research has suggested that drug users may have a low pain tolerance, thereby exacerbating continued alcohol and drug use when experiencing dental pain. Participants described some awareness of the direct physiological effects of cigarette, alcohol and drug use, such as reduced salivary function and the consumption of sugary products on tooth decay, delayed wound healing, sinusitis, soft tissue damage, gum disease, and oral cancers.

On a positive note, routine dental care in the form of brushing and flossing, and preventative dental service uptake improved when attending the treatment and rehabilitation service. The study narratives underscore how improved oral health, and the improved appearance of teeth contribute to personal well-being, confidence, and self-esteem when recovering from addiction. Research suggests that the situation of dental practices and employment of oral health promotion initiatives in treatment and rehabilitation settings offer promise in the facilitation of health behaviour change, both for the addict and their children. The findings offer a unique insight into the potential for development of oral health promotion and preventative care activities for those working with addicts in Ireland. Interventions developed in the UK and US include: target leafletting by street outreach workers; free mouth checks; integrated dentist and treatment services targeting special groups at risk; dental ‘drop in’ clinics for active and recovering drug users; and, outreach oral health promotion initiatives for street drug users within a whole stakeholder community. The proactive addressing of oral health needs, through screening, prevention, diagnosis and treatment, can improve client morbidity and well-being along the recovery continuum. Research in the UK underscores the usefulness of collaboration between dental and addiction service key workers, the service user involvement team, and local pharmacies in the form of piloting dental drop in sites alongside shared care services for service users with oral health promotion central to building recovery capital. Equally, the study findings can contribute the development of specific chemical dependence training for Irish dental nurses and dentists in both private and general dental practice.

Conclusion

The study highlights that, for those in recovery, specific dental interventions in private and general dental practice would be received positively. It presents a starting point in creating an oral health profile of drug dependents in Ireland, with findings useful for the design of a larger study at a later date. We recommend further research investigating oral health status of clients attending addiction treatment in Ireland, and the feasibility and acceptability of various oral health care preventive strategies for use by public and private dental practices.

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References