

Patterns of opioid use and treatment in a cohort of patients from the Anuradhapura district

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Abstract

Background

Opioid dependence is a major mental health problem in Sri Lanka. Anuradhapura is a district with a significant prevalence of opioid (especially heroin) dependence.

Aims

To describe the socio-demographic features, patterns of use and types of treatment adopted by persons abusing opioids presenting to psychiatry services in Anuradhapura, Sri Lanka.

Methods

This retrospective survey was conducted over three months using medical records of patients with opioid dependence who received treatment from psychiatry services in the government or private sector, in Anuradhapura.

Results

Of the participants using opioids, most (n=56, 96%), had co morbid substance use, with nicotine, cannabis, or alcohol. Patients spent a significant proportion of their income on substances. All the patients received pharmacological treatment for opioid withdrawal

symptoms. The most distressing withdrawal symptoms were insomnia and body aches. During the three-month study period, 38 out of 58 patients (65%) had defaulted follow-up treatment. Most who dropped out had reported severe withdrawal symptoms on presentation and had a low level of education. Sixteen patients (27%) remained abstinent for the over 3 months.

Conclusions

Opioid dependence is a significant problem presenting to psychiatry services in the Anuradhapura district. Similar to international findings, long-term engagement of patients in care-programs is a challenge. More effective alternative measures should be explored to help this group of patients.

Key words

Heroin, tramadol, opioid, withdrawal symptoms, dependence

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Introduction

Opioids include the illegal drug heroin, synthetic opioids such as fentanyl, and prescription pain relievers, such as oxycodone, hydrocodone, codeine, and morphine (1). Opioids can lead to dependence, overdose, and death (1). Symptoms of opioid withdrawal include nausea and vomiting, piloerection, anxiety, insomnia, yawning, hot and cold flushes, perspiration, muscle cramps/ pains, watery discharge from eyes and nose and diarrhoea (2).

The use of illicit drugs in Sri Lanka has been in existence as far back as the 17th century (1). In the past, colonial powers regulated the use of opium as a revenue earning measure (3). The main legislation on drug law enforcement is provided in the “Poisonous opium and dangerous drug ordinance of 1936” and was amended by Act No. 13 of 1984, of the same ordinance (4). Despite these legal measures, there has been an increasing tendency among people to use illicit drugs such as



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opioids and cannabis. A school based health survey in Sri Lanka in 2016 reported that the prevalence of alcohol, smoking, smokeless tobacco and substance abuse was 3.4%, 3.6%, 2.3% and 2.7% respectively (5). In 2016, the average street price of a kilogram of cannabis and opium was rupees 22,000 and rupees 1.5 million respectively (6). A study in 2015 suggested that substance dependence is a major threat for rural development, due to 75% of study participants allocating more than 50% of their monthly income for drugs (3). Liyanage et. al., in 2013 concluded that many types of illicit substances are used by schoolchildren in Sri Lanka, and effective strategies are needed to prevent further aggravation of this behaviour (7).

Although cannabis is the most commonly used drug in Sri Lanka, the most problematic group of drugs for most South Asian countries are opiates. In the South Asian region, the following opioids are most often used: Afghanistan and Myanmar-originated heroin, locally produced heroin, synthetic opioids and prescription drugs such as codeine-based cough syrups and diazepam produced mainly in India and Bangladesh, synthetic drugs originating from South East Asia, cannabis and alcohol (8).

Globally, opioid use is estimated to occur among 0.7% of the world's adult population (35 million users) (9). The global number of opioid users continued to increase from 17.3 million in 2014 to 17.7 million in 2015 (9). Opioid use disorders account for the heaviest burden of disease due to drug use disorders (9).

In the current Sri Lankan setting, symptomatic management is available for opioid withdrawal – such as prochlorperazine for nausea and vomiting, loperamide for diarrhoea, pain relief for myalgia, benzodiazepines/quetiapine/ melatonin for insomnia, and clonidine for sympathetic overactivity. Internationally, varying medication options are available to treat opioid use disorders, including clonidine, methadone, buprenorphine, naltrexone and buprenorphine/ naloxone combined treatment (1,2). Lifestyle modifications are often challenging to achieve in those with drug use disorders. In a prospective study of 63 admissions to a methadone maintenance programme, compliant patients did improve their employment status, but most patients have continued their drug-related lifestyles (10).

The reported number of individuals treated for substance abuse (acute treatment and rehabilitation data) in Sri Lanka in 2016 was 2355 (6). Among them, 826 (35%) clients were from treatment centres run by the National Dangerous Drug Control Board (NDDCB), 684 (29%) were from the Prisoner Division Scheme of the Department of Prisons, 474 (20%) were from nongovernment organisations and 371 (6%) were from the Kandakaduwa Rehabilitation Centre of Bureau of the Commissioner General of Rehabilitation (6). Kandakaduwa is the only

available rehabilitation facility in the North Central Province for patients with substance dependence.

Objectives

The objectives of this study were to describe the socio-demographic features, patterns of use and types of treatment adopted by persons abusing opioids presenting to psychiatry services in Auradhapura, Sri Lanka.

Methods

A retrospective survey was carried out in Anuradhapura, Sri Lanka over three months from August to November 2018. Information was gathered from medical records of all patients who had received treatment for opioid dependence during this period, from the private sector (a channelling centre in Anuradhapura), inpatient settings (Ward 15, Teaching Hospital, Anuradhapura), the outpatient psychiatry clinic at TH Anuradhapura and the prison clinic, Prison Hospital, Anuradhapura. Medical records from the private sector were carbon copied and stored confidentially for the purpose of the survey.

The records of all patients who were diagnosed to have opioid dependence (according to ICD 10 criteria) and who received treatment for opioid dependence during the study period, in the study areas, were considered eligible for inclusion in the study. All except two eligible patients were included in the study – two records could not be included because the available documented information was inadequate. Information from initial assessments and routine reviews were extracted, and de-identified data was entered into a Microsoft Excel spreadsheet. All information and records were stored securely and confidentially. Simple descriptive statistical analysis of data was done using the same software.

Results

Medical records of 58 clients were included in the study. All the patients were males. Forty two patients (72%) were 21-30 years old, 10 (17%) were 31-40 years old and there were 6 (10%) patients aged 17 to 21 years. Of the participants, 42 patients (72%) had presented to the private sector, 6 (10%) received inpatient treatment at T.H. Anuradhapura, 2 were hospital outpatients, and 8 (13%) were prison patients. Of those in prison, 6 (10%) had court orders for rehabilitation at the Kandakaduwa Rehabilitation Centre.

With regards to employment – 18 (31%) patients were taxi drivers, 14 (24.1%) were unemployed, 10 (17.2%) were unskilled labourers, 8 (13.7%) worked in the private sector, and 8 (13.7%) were government employees. The level of education ranged from grade 5 to high school, and there was one patient with degree in arts. Their daily income

ranged between 2000 to 15000 rupees. A majority of the clients spent 4000 to 8000 rupees for heroin per day (n=38, 65%). Ten (17.2%) patients spent 2000 to 4000 rupees daily for the drugs. Five (8.6%) patients spent more than 10000 rupees for their daily drug use. A total of five (8.6%) patients were engaged in selling and distributing heroin.

Of the 58 clients, 57 (98.2%) used plastic straws to inhale heroin. Only one patient reported injecting the drug. Fifty (86.2%) patients had tattoos, mostly on the forearms and upper arms. Twelve (20.6%) patients had a history of imprisonment for possessing heroin, and five (8.6%) patients had been in rehabilitation programmes in the past.

A total of 56 (96.5%) clients had co-morbid nicotine dependence, and 26 (44.8%) also used cannabis. Tramadol (50mg and 225 mg) was used occasionally by 36 (62.0%) patients. Twelve (20.6%) patients reported occasional alcohol use. The gateway drug was nicotine in 47 (81.0%) patients, and cannabis in 11 (18.9%) patients.

A majority (n=50, 86.2%) had body aches and insomnia as the most distressing withdrawal symptoms. Eight (13.7%) patients complained of diarrhoea and yawning as the most difficult withdrawal symptoms. Piloerection, lacrimation, excessive salivation, abdominal cramps were the other withdrawal symptoms. Five (8.6%) patients expressed suicidal ideas during acute withdrawal of the substance. One patient had attempted suicide the day before hospital admission. All the patients were in the contemplation or preparation phase of readiness to change cycle.

Symptomatic pharmacological treatment was accepted by all clients. None of the clients showed interest in engaging in psychotherapeutic interventions by a therapist. Psychotherapeutic options and venues were discussed and offered to the patients by the principal investigator. However, clients refused to see a therapist during initial assessment, and during the follow up period.

Symptomatic treatment used included benzodiazepines (mainly clonazepam and diazepam), other sedatives (promethazine, melatonin), sedative antipsychotics (quetiapine, rapidly acting olanzapine), analgesics (celecoxib, diclofenac sodium, ibuprofen, tramadol), antiemetics (metoclopramide) and loperamide for diarrhoea. Clonidine was not used due to its unavailability in Anuradhapura. Twelve patients were aware of methadone. However, this was not prescribed due to its unavailability for treatment in Sri Lanka. Patients had been reviewed weekly, two weekly and monthly. Six (10.3%) patients had complained of myalgia, insomnia, hypersomnia, loose stools, occasional suicidal ideas and yawning while on treatment, and had asked for stronger

medicines to get rid the 'sickness'. Ten (17%) patients were happy about the management. Naltrexone 25 mg was started for 12 patients two weeks after the initial treatment. Four patients were unable to afford naltrexone due to financial difficulties.

During the three-month study follow-up period, 38 out of 58 patients (65%) had defaulted treatment and follow-up. Most of the patients who had dropped out were taking treatment from the private sector (n=36, 62.0%), a majority had studied only upto grade 9 (78%), all of them were smoking nicotine, and all of these patients had severe withdrawal symptoms on presentation. Sixteen patients (27%) remained abstinent over the 3 months follow up. The remainder (n=4, 6.8%) used tramadol 50 mg, tramadol 225 mg, pregabalin or a reduced dose of heroin while on treatment.

Discussion

This survey shows that those with heroin dependence or misuse, presenting to psychiatry services in Anuradhapura were mostly unskilled or semiskilled workers. Most spent a significant amount from their salary for daily heroin consumption. Almost all had used other substances while taking heroin. Nicotine and cannabis were the main gateway drugs among the participants.

All patients requested medicines to relieve the 'sickness'; however, none were interested in psychological management of the problem. This may have been due to limited insight about the importance of psychological therapy, or because they were presenting for treatment on the insistence of relatives, or due to negative prior experience with psychotherapy. This is a significant problem as psychotherapy is considered as an integral part of the management of addiction. Therefore, investing time on engagement, motivational enhancement and education along with detoxification should be attempted.

In this study, all patients received symptomatic treatment for withdrawal symptoms, and twelve patients received naltrexone during the follow up period. Treatment delivery for heroin dependence varies across countries. Treatment practices and outcomes in different countries show a wide variation. Treatment of opioid dependence is needed in order to reduce heroin use and its consequences.

Sixty five percent of the clients discontinued treatment and were lost to follow up. Characteristics of those who dropped-out included a low educational level, presence of other substance use, and severe withdrawal symptoms on presentation. International evidence suggests that effectiveness of treatment is related to the duration of treatment (11). An Italian longitudinal study involving

115 drug treatment centres and 10,454 heroin users, where 43.2% received methadone maintenance therapy (MMT), 10.5% therapeutic community, and 46.3% abstinence-oriented therapy (AOT) reported that the type of therapy was found to be the strongest predictor of retention (11). AOT was associated with the lowest level of retention, whereas in patients with MMT, retention improved according to dose. Living alone, psychiatric comorbidity and cocaine use increased the risk of dropout. Psychotherapy halved the risk of dropout (11).

Limitations

Participants in this study were based on those who sought treatment from psychiatric services, which may have biased the findings. The small sample size is also a limitation, and both these factors limit the generalizability of the findings. The retrospective and record-based nature of data collection is a further limitation.

Conclusions

A majority of the patients who presented to psychiatric services in Anuradhapura with opioid misuse or dependency were young males, employed as either taxi drivers or in unskilled employment. This appears to be a high-risk group and should be targeted in preventive and screening programmes.

Similar to findings from elsewhere in the world, patients in this sample too showed a high drop-out rate on longer term follow-up. This is a challenge, and suggests the need for alternative treatment options. Increased awareness and engagement in psychological therapies, and adaptation of psychological therapies to suit the local socioeconomic and cultural milieu, are avenues that should be further explored. Other management options, such as opioid replacement therapy or the use of therapeutic communities could also be revisited. More follow-up studies with bigger sample sizes are needed to understand the trends in substance use, and to formulate management guidelines and policies for Sri Lanka.

Declaration of interest

None

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