

ORIGINAL PAPER

ANXIETY DISORDERS AMONG INCARCERATED DRUG USERS

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Abstract

The problem of illicit drug use has been a long standing problem in Malaysia. It is well recognized that drug mis-use is associated with many social, economic and health problems, including mental health problems. Anxiety disorders have consistently been cited as the commonest type of psychiatric disorder in drug users. In Malaysia, many drug users are incarcerated in rehabilitation centres and prison. They form a different type of population as compared to the drug user in the general population, due to the effects of incarceration. With this in mind, a study was carried out in a rehabilitation centre, looking at anxiety disorders. Utilizing the SCID, we found current and lifetime diagnoses for anxiety disorders at 63.4% and 67.6% respectively. Suggestions are made in regards to our findings.

Keywords: Anxiety disorders, drug user, incarceration.

Introduction

The issue of drug or substance use has been a longstanding global issue for centuries. Its use dates back thousands of years and has been used in various cultures for a variety of reasons including religious purposes, for recreation, to alter consciousness, and for medicinal purposes in obtaining relief from pain and stress. In Malaysia, though drug abuse dates back to the 8th century among Arab traders, the problem only escalated with the arrival of Europeans, especially during the British rule. Chinese migrant labourers, who were brought in to work in the tin mines, used opium in large amounts.

Similarly, Indian migrants who were brought to work in plantations popularized the use of cannabis.¹ Currently, there is estimated to be 400,000 to 800,000 drug users in Malaysia.

It is now well recognized that the problem of drug usage brings about a wide array of social, economic and health problems to a nation. Besides physical illnesses, the whole gamut of psychiatric disorders has been associated with drug use. The Epidemiologic Catchment Area (ECA) Study (1990) in the US with a study population of 20,291, that drew samples from the community as well as specialized treatment centers and prisons,

revealed that among those with a lifetime history of a drug (other than alcohol) use disorder, 53.1% had a lifetime psychiatric disorder, and were at 4.5 times the risk of having such a disorder compared to those without a history of drug use.² The commonest psychiatric disorders seen among the drug users in this study were Anxiety Disorders (28.3%) and Affective Disorders (26.4%). This study found the odds ratio of having an Anxiety Disorder among the drug users were 2.5 as compared to the general population. As for the proposed explanations for the high rate of comorbidity between substance use and anxiety disorders, most research has focused on Panic Disorder, which has yielded the most evidence. Opioids in particular, are thought to have a significant role in the development of a Panic Disorder. Brooner et al (1997) found among opioid users who had a comorbid panic disorder, 21% were deemed to be opioid induced in nature.³ The current understanding of panic attacks in general is focused on the overactivity of the locus cereulus. It has been demonstrated that opioids, either in its endogenous or exogenous forms, inhibits the mammalian locus cereulus. Prolonged exposure to exogenous opioids leads to inhibition of not only the locus cereulus, but also the production of endogenous opioids. Sudden stoppage from exogenous opioids, with the concurrent current low endogenous opioids levels, leads to sudden release of inhibition within the locus cereulus, with a subsequent surge in its activity. This produces symptoms such as anxiety, fear, tachycardia, tachypnoea, restlessness and perspiration,² all which can resemble the symptoms of a panic

attack.⁴ There have also been case reports of panic attacks precipitated by the administration of naltrexone, an opioid antagonist.⁵ Therefore the panic attacks seen in opioid dependent individuals, may be the manifestation of sudden subtle opioid withdrawals that may occur in the day to day life in the drug user.

In contrast, the explanations behind the high rates of phobias such as specific and social phobias observed in drug users is mostly based on a “self medication hypothesis” rather than the “drug induced hypothesis” favoured for Panic Disorder. It has been observed that most of the cases of phobias in drug users had begun before drug usage, implying substances are taken as a form of self medication, rather than substances inducing the phobias.⁶ Another possible explanation is the inherent personality traits in these individuals may predispose them to both phobic illnesses and substance misuse.

In Malaysia, when a drug user is detained by police, many of them are sent to prison or government run rehabilitation centres (Pusat Serenti). There is a large number of substance misusers who are under compulsory detainment in these government run rehabilitation centres in all over Malaysia. This population which are detained within rehabilitation centres may differ from other drug users in their presentation of psychiatric symptoms, due to the fact that incarceration acts as a stressor and may lead to psychological and cognitive stress and an acute reactive state with depressed and anxiety symptoms. Unfortunately, most of the literature

available on psychiatric morbidity among drug users is not of this subtype of population (incarcerated drug users). This lack of data could be due to the fact that most countries worldwide do not practice compulsory detainment of drug misusers. Malaysia is one of only few countries worldwide to do so. Realizing these we sought to study the prevalence of Anxiety disorders in this population.

Methods

This study was carried out at the 'Pusat Serenti Rawang' (Rawang Drug Rehabilitation Centre), which is located about 25 kilometres from Kuala Lumpur. All the drug offenders within the rehabilitation center during the duration of the study who were agreeable to a written consent and did not fulfill any of the exclusion criteria were included in the study. Those excluded were those who were undergoing detoxification ("cold-turkey") who were inaccessible as they would be in confinement for two weeks (except those who complete their detoxification before the end of the study period) and those who were too confused or psychotic to be interviewed. A written consent was obtained from those who were agreeable.

Data was collected regarding demography, length of incarceration and prior incarceration. Current and lifetime diagnoses of the various anxiety disorders were made by utilizing the Structured Clinical Interview for DSM-IV Axis 1 Disorders-Clinical Version (SCID-CV).⁷

Results

There were 171 drug offenders as of the start of the study in December 2000 at the study site (Rawang Drug Rehabilitation Centre). A further 9 were included in the study later in the month after they had completed their two weeks detoxification in confinement, producing a total of 180 drug offenders. However, 13 were not interviewed as they had absconded from the center during that month before they could be interviewed. 1 offender passed away during that month (a case of Acquired Immunodeficiency Syndrome) and another 1 was warded in hospital during the whole period. A further 23 offenders refused participation. Therefore, a total of 142 (78.9%) out of the 180 offenders were interviewed and were included in the study after their written consents were obtained. All could converse in either English or Malay, and none were too confused or psychotic to be interviewed.

The entire population sample was males, as the rehabilitation center was exclusively for males. The youngest was 22 years of age, and the oldest was 63 years old. The mean age for the entire sample was 36.8 years with a standard deviation of 8.07. Malays were the largest ethnic group interviewed, consisting of 119 (83.8%) offenders, followed by Chinese 12 (8%), Indians 10 (7%) and others 1 (1%). Only 36 (25.4%) of those interviewed were married. The remaining 106 (74.6%) were single; either never married 88 (62%), were widowed 6(4.2%) or currently divorced or separated 12 (8.4%).

Out of the 142 drug offenders interviewed, 106 (74.6%) had been in either a drug rehabilitation center or prison before, ranging from twice to eight times. The current length of stay at the time of interview, of each drug offender interviewed, ranged from a minimum of half a month to a maximum of 16 months, with a mean length of 5.23 months, and a standard deviation of 4.13 months.

A total of 90 (63.4%) subjects had a current diagnosis of an Anxiety disorder and 96 (67.6%) subjects had a lifetime diagnosis. Of these subjects, 10 (7.0%) out of the 142 drug offenders interviewed were suffering from a lifetime diagnosis of a Panic Disorder, 3 with Agoraphobia or 7 without Agoraphobia. As for a current diagnosis of Panic Disorder, 7 (4.9%) of them were currently still suffering from it. 5 were considered to be substance induced as they began within a month of substance intoxication or withdrawal, and did not persist longer than a month during abstinence after substance withdrawal in accordance with the Diagnostic And Statistical Manual of Mental Disorders – 4th Edition (DSM IV). The substance responsible was opioids in all cases.

As for the diagnosis of Obsessive Compulsive Disorder, 3 (2.1%) drug offenders fulfilled the criteria for a current and also lifetime diagnosis. Only 1 of them was considered to be substance induced as it arose during substance usage. There were 3 (2.1%) drug offenders with a lifetime diagnosis of Post Traumatic Stress Disorder. One subject developed symptoms after witnessing his childhood friend being run

over by a train. Another had its onset after witnessing his friend being shot to death in a street fight. The third witnessed a close friend bleed to death from a needle puncture wound in his groin, and still suffers from the symptoms until now, therefore, also fulfilling a current diagnosis of it.

A total of 34 (24.4%) drug offenders fulfilled the criteria for a lifetime diagnosis of Social Phobia, of which nearly all, 33 (23.7%), still fulfilled a current diagnosis of it. All the cases were deemed not to be substance induced as they were present before the onset of substance use, and persist even if there are periods of prolonged abstinence for more than a month.

There were 25 (17.6%) drug offenders who fulfilled the criteria for a current and also lifetime diagnosis of a Specific Phobia, all of which began before any drug usage. 4 were of the “animal type”, 11 were of the “natural environment type”, 9 were of the “blood-injury-injection type” and 1 was of the “situational type” (1).

There were 21 (14.8%) drug offenders who fulfilled the criteria for a current and also lifetime diagnosis of a Generalized Anxiety Disorder, of which 4 began during substance use but not considered to be substance induced in nature as it was reported that symptoms persist even during periods of prolonged abstinence for more than a month.

Discussion

This study found high rates of anxiety disorders (63.4% for a current diagnosis and 67.6% for a lifetime diagnosis) among the study population. This is extremely high

when one considers that the estimated prevalence of both depression and anxiety disorders in our local population is only 11%⁹. These rates are much higher than those found in the Epidemiologic Catchment Area (ECA) Study, where there was a current diagnosis rate of 28.3% for anxiety disorder.² This may be explained by the fact that the majority of the sample population in these studies was community based and not incarcerated. High levels of psychological and cognitive distress may occur upon entry into an incarcerated environment, due to abrupt changes in social networks and uncertainty about the future.⁹ This may explain the extremely high rates seen in our study. It is important to note that the majority of our sample population had been incarcerated before, some numerous times. Therefore the stress associated with incarceration here is not a one off phenomenon for them, but a recurrent one throughout the lives of most of them.

As for Panic Disorder, 10 (7.0%) of the drug offenders interviewed were found to have a lifetime disorder. This is higher than what is found in the general population where epidemiological studies have produced lifetime rates ranging from 1.5% to 5%.¹⁰ Our findings are similar to the figures found by Darke et al (1997) who found a lifetime rate of 7%¹¹, and to the figure of 6.6% obtained by Ross et al (1988)¹². Out of these 10 drug offenders, 5 were thought to have a panic disorder than is opioid induced. This high rate of opioid induced panic disorder is not surprising given the fact that most of the drug offenders interviewed was opioid users, and the strong evidence available on the role

of opioids in the etiology of panic attacks, as has been discussed in the 'Introduction' section.

The lifetime rate of Social Phobia obtained in this study was 24.4% and for Specific Phobia the rate was 17.6%. These rates are high when compared to what is estimated in the general population, where the lifetime rates of social and specific phobias are estimated to be 3-13% and 11% respectively.¹⁰ However the rates in our study are comparable to those obtained in studies looking at substance users. Darke et al (1997) found lifetime rates of 39% and 33% for social and specific phobias respectively (27), and Ross et al (1988) found a lifetime rate of 28.7% for phobias in general.¹²

As for Generalized Anxiety Disorder, we found a lifetime rate of 14.8%. This high rate is expected, considering the fact that Generalized Anxiety Disorder is said to a disorder most often coexisting with another mental disorder, particularly depression, panic disorder, social phobia and specific phobia¹⁰, all of which were present with high rates in this study.

Only 3 (2.1%) drug offenders were diagnosed with a lifetime diagnosis of an Obsessive Compulsive Disorder, a rate which is in keeping with the estimated rate in the general population of 2-3%.¹⁰ Other studies had also yielded non elevated rates, for example, Brooner et al (1997) obtained a lifetime rate of 0.7%¹³ and Rounsaville et al (1982) quoted a figure of 1.9%.¹⁴ In contrast to the disorders discussed earlier where elevated lifetime rates were obtained, the

normal lifetime rate obtained for Obsessive Compulsive Disorder in this study implies that there is probably no significant correlation between it and this population.

As for the diagnosis of Post Traumatic Stress Disorder, this study revealed a lifetime rate of 2.1%, where 3 drug offenders were diagnosed to have had a lifetime diagnosis of it. This is in keeping with the estimated prevalence in the general population of 1-3%.¹⁰ However what is interesting to note is that the events which is assumed to be responsible for the development of this disorder in 2 out of the 3 drug offenders appears to be related to their “drug user” lifestyle. One drug offender’s symptoms began after he witnessed a close friend bleed to death from a needle puncture wound in his groin, while the other suffered from symptoms after witnessing his friend shot to death in a street fight. There for, one can possibly assume that they lifestyle a drug user leads, especially the ‘hardcore’ ones, may expose them to catastrophic events that can lead to a Post Traumatic Stress Disorder.

In conclusion, several recommendations can be suggested based on the findings of this study. Identification and treatment of co-morbid anxiety disorders in this population is of utmost importance, due several reasons. Firstly, it is unethical not to screen and treat for them in this population, and cause unnecessary suffering, knowing very well the rates are high. Failure to identify co-morbid psychiatric illnesses here means an opportunity for treatment is lost in a population that is otherwise difficult to reach in the community.

Secondly, identification and treatment of psychiatric illnesses, including anxiety disorders, must be addressed as the central role in relapse prevention of substance use as co-morbid psychiatric illnesses are often associated with high rates of continued substance usage after treatment.¹³

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