

THE BURDEN OF OPIOID USE DISORDERS IN WELL-EDUCATED AFGHANS: A CASE REPORT

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Abstract

After almost four decades of wars, Afghanistan and its population face host of challenges, economically and socially. The return of the refugees, along with high unemployment rates has exponentially increased the risk of opioid use disorders in Afghans. It is most of the time argued that the problem of drug use is somewhat limited to individuals with poor socioeconomic status. However, in Afghanistan, the more educated youth may be a high risk group in whom early intervention will have long lasting positive effects. In this case report, we present a case of well-informed Afghan man, with untreated dual diagnoses. We discuss the challenges associated with opioid use and its implication for the population particularly well educated Afghans.

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Introduction

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Methods

The participant in this case report is a volunteer who was selected from the congregation of opioid addicts living under Pol-e-Sokhtabridge in Kabul, Afghanistan (figure 1).

Narrative Description of Recruitment Location

Under this bridge, there were hundreds of people either intoxicated or actively using opioids (figure 1 A). In spite of significant stigma associated with being an addict in Afghan society, these individuals did not seem to mind entertaining onlookers, who included both Afghans and foreign nationals. The authors categorized the observed population as those who appear to reside under the bridge, and those who are temporary visitors. For example, a man in a suit and tie, having an appearance suggesting financial stability, was seen going under the bridge to obtain some drugs. When the authors approached him, he refused to comment. There were two other individuals seen actively injecting each other. One of them was unsuccessful in finding access to a vein in both the upper and lower extremities for almost 30 minutes. He finally resorted to injecting his penis (figure 1B and 1C). These two individuals were not open to the authors' questions and even threatened them with physical violence. After approaching multiple individuals, one subject agreed to a full interview. He was seen injecting himself in the forearm in the median of a busy street (figure 1D and 1E). As a measure of gratitude, the authors took him to dine in a restaurant and paid him a small amount for his time.

Case report

Mr. Ali was a 39-year-old married, homeless and unemployed Afghan man with a current psychiatric history of recurrent and severe major depressive disorder and opioid dependence. Mr. Ali had been struggling with depression since his teenage years but was never treated for the mood disorder.

Ali stated that his father was a businessman in Iraq before the start of unrest in Afghanistan in the 1970's. When his father returned to Afghanistan, Mr. Ali's family left for Iran because of the Soviet Army invasion. Mr. Ali spent most of his adult life in Iran with his family. He completed high school and some college there before dropping out.

Mr. Ali started smoking cannabis in his early teenage years after a lady rejected his affection for her. About a year later, Mr. Ali had attempted to kill himself by cutting his wrist (figure 1F). He clearly met criteria for major depressive disorder at the time. Like most Afghan refugees in Iran, he did not seek any care in the aftermath of the suicide attempt.

After dropping out of higher education institutions, he started working as a rug weaver. Mr. Ali, along with his co-workers, had to work long hours to earn a decent wage. To offset the difference, the business owner provided his employees with opium and heroin. Ali started with opium because he believed it had few negative consequences since it was "natural product". Ali stated he was grateful to the business owner for two reasons: he could work longer hours and make more money, and he enjoyed the working experience.

Soon afterward, Ali started to use heroin regularly. He spent most of the money he earned on heroin, thus losing his job and developing relationship strains with his family. In an attempt to control his behavior, his family wed him to one of his cousins, which is a common practice in Afghanistan. After this arranged marriage, things did not seem to improve. He continued to struggle with his heroin addiction which strained his marriage as well. His siblings did not go down the same path as him—they were able to complete their education and immigrate to Australia.

After the fall of the Taliban, Ali moved back to Kabul, Afghanistan with his family. He worked odd jobs and continued to use heroin, which strained his work and personal life. In order to help Ali relocate to Australia, his brothers sent him \$7,000 to go to Turkey to meet up with them so they could support his immigration to Australia. However, Ali used the money on heroin and the family subsequently disowned him. He then tried to kill himself by overdosing intentionally on diazepam and heroin he was not admitted to any psychiatric institutions at this time either

He tried to enroll in a substance rehabilitation program in Kabul but he described his experience as disappointing. Ali rejected the treatments that were given, methadone and buprenorphine, because his dealer told him they were more harmful to his health than heroin and that the staff was incompetent. When asked what Ali meant by "incompetent", he stated, "What type of doctors are they? They cannot find a vein in some of the patients' arm, while the dealer will find a vein in the same person's finger." Ali did not complete the rehabilitation program and continues to use heroin to this day. He has abandoned his wife and child and his siblings have abandoned him.

At the time of this interview, he worked as a day-laborer when he's not intoxicated and used the money he earned to support his heroin use. He claimed that he had been approached by news reporters and foreigners who were interested in the lives of people living under the Pol-e-Sokhta. He was disappointed in the authors for not compensating him with an amount as large amount as he had hoped for his story. He even offered to inject heroin in front of the authors so that they could have a "nice picture" provided that he gets compensated. The authors declined his offer (figure 1E). The authors offered to mediate his enrollment in the drug rehabilitation program and to assist him with other medical care since he had not seen a physician in a year. Ali, however, declined politely. Ali's time was compensated at the same rate as any other day-laborer by the authors.

The interview was conducted immediately after Ali had used heroin, nevertheless, his cognitive abilities were impressive. He was very articulate with rich language skills suggestive of higher than average educational attainment. He was alert, awake and oriented in all domains. His mood was depressed and affect was restricted in

range. His thought process was linear, coherent, and logical. His fund of knowledge was above average. Although a formal neurocognitive assessment was not possible, he appeared to be well-informed about the country and its history. He had strong opinions with excellent reasoning about the local, regional and global politics. His minimal status examination (MMSE) was 30/30, even though he had injected heroin prior to this assessment. His insight was fair because he understood the scope of his impairment was a result of his addiction. His judgment was poor because of his continued use of heroin and resistance to getting help. At the time of interview, his impulse control was fair, but his continued substance use and offer to inject himself for a picture would suggest impaired impulse control.



Figure 1. Opioid use disorders are increasing in Afghanistan (A,B,C) with injectable drug being common (D,E) Most of these individuals have underlying psychiatric issues, Mr. Ali shows the scar of his first suicide attempt. (Note: Mr. Ali insisted to pose for picture D, out of respect for his wish; we would like to include this photo in the manuscript. The authors requested that Mr. Ali avoid inserting the needle in his skin; he obliged).

Discussion

In the recent decades, Afghanistan has been in the news for very high output of opium(1), however, the consequences of opium on the Afghan population are poorly studied. Opium poppy (*Papaver somniferum*) is not an indigenous plant to Afghanistan(2, 3). Its history in Afghanistan, as in many other South Asian countries, is unknown. Up until 20th century, opium did not seem to be cultivated on a large scale in Afghanistan. For instance, even though the Second Opium Conference of the League of Nations at the International Opium Convention(3, 4) was open to accession by Afghanistan, the output of opium from Afghanistan was minimal (75 tons in 1934). Over the next few decades, the opium production was even lower in the South Asian region, which includes Iran, Afghanistan and India: from 1,126 tons in 1934 to 381 tons in 1970(3). However after four decades of wars,

the opium production in Afghanistan soared(2). In 2014, Afghanistan produced up to 7,800 tons of opium. Most of it is exported to the rest of the world, nevertheless, the Afghan population is affected(5-8).

Opium has been used extensively as a homeopathic medication, more specifically as an antitussive, in Afghanistan in the past century. In the most rural areas with limited medical care, mothers would give small amounts of opium to their children during upper respiratory infections regardless of etiology(9). Nevertheless, opioid use did not seem to be common in Afghan prior to 2001. Gobar (1973) reported that over a ten-year period, only 24 out of 6,000 admissions were opium addicts at the Sanayee Hospital of Kabul University(10). Another finding from Gobar's study was that opium addiction was more common in the Northern provinces with Badakhshan accounting for almost 80% of the cases in the entire country.

After international intervention and the return of refugees from Pakistan and Iran, the rate of opioid use raised dramatically. To determine the percentage of the population dependent on opioids, Cottler et al. used assays that test for the presence of opioids in the system(11). They found that about 7% of men and 3% of women had biological markers for opioid use. This translates to about three million out of 30 million Afghans. This is a huge increase compared to 120,000 opioid addicts between 1960 and 1970(10). However, it should be taken into consideration that within these 3 million users, not all are dependent on opioids. For instance, In the US, between the years of 2000-2004, 4.5% of population used opioid with about 13% meeting criteria for opioid abuse and/or dependence(12). Although applying one society's substance use pattern may not be applicable to another society, in the lack of evidence extrapolation may be useful and utilized in other situations(13). Extrapolation from a UNODC study in 2001 would suggest close to 250,000 opioid users in Afghanistan(14). Heroin use is of particular importance since the injectable use of heroin is not uncommon in Afghans. Estimates in 2009 suggests there were 120,000 user of heroin in Afghanistan(5), which most likely is a significant underestimation of the prevalence of opioid use in Afghanistan. If extrapolation is based on US data, close to 400,000 Afghans may be abusing or be dependent on opioids.

Previously it has been noted that in Afghanistan, most opioid users are of lower socioeconomically backgrounds with lower educational attainment(15). In a study by Zafar and colleagues, 94% of Afghans enrolled in their study had 1-5 years of education. This case report may suggest that the plight of opioid use in educated Afghans is even under-reported. The number of relatively well-informed Afghans using opioids is most likely significant. This is because after the cut-back of international assistance, the Afghan youth who were given the opportunity to receive post baccalaureate degrees are now mostly unemployed. These individuals used to have fairly good incomes and with the cutback in foreign assistance their incomes have dropped dramatically. Even though accurate figures are not available, anecdotal accounts suggest more than a 10-fold drop in income. These educated Afghan youth are now at higher risk of opioid use.

Another vulnerable group is children. As mentioned above, opium has been used to treat children with viral illnesses in Afghanistan for centuries(9). However, in the past decade, more children have been given opioids for non-medical reasons. Afghanistan National Urban Drug Use Survey (ANUDUS) indicated that in an urban setting, 2.3% of children younger than age 15 were positive for opioids, which most likely was given by an adult(16). There are numerous case reports and well-established studies showing parents giving opioids to their children as a sedative so that they can work. In this case report, the participant was given heroin by his employer so that he and his co-workers could spend more time on the job. Most of these young Afghans suffer from undiagnosed and untreated depression which tends to increase the risk of substance use including opioids.

As in Mr. Ali's case, the psychiatric needs of Afghans remain unaddressed. For instance, it is not uncommon for Afghans to consider being depressed as their natural characteristic. Thus these individuals do not seek help(17). Mr. Ali clearly met criteria for major depressive disorder currently and had two prior suicide attempts, however, his needs were un-recognized. It is not uncommon to under report suicide especially in men in Afghanistan because of religious and cultural stigma associated with suicidal behaviors(18).

Beside consequences directly related to substance use, opioid use has other implications for the population as well(19, 20). With the influx of refugees from Pakistan and Iran, the rate of HIV has increased in Afghans. Afghans,

compared to others both regionally and internationally, have poor knowledge of HIV/AIDS(15). In 2012, there were 2250 HIV cases reported in Afghanistan (0.004%). However, in reality it was closer to 3,000 individuals that were living with HIV in Afghanistan (0.01%). The rate of HIV in those using injectable opioid in three provinces of Afghanistan was reported as 1-18%(21). This a significant increased risk compared to the general public.

The scope of the opioid misuse in Afghanistan is clearly extremely high, yet the outreach has been negligible. There are very few centers available for opioid use rehabilitation in Afghanistan. Moreover, the outreach by drug dealer is far greater than the outreach by public health officials. For instance, this otherwise well-informed individual in this case report was discouraged by the drug dealer from seeking help, including the methadone treatment. The drug dealer was able to convince the patient of the health risks of methadone by stating that the staffs in these centers are incompetent. The ministry of public health needs to be more assertive in disseminating accurate information in an easy to comprehend format whether via printed, auditory or visual media so that the individuals with opioid use disorders can make more informed decisions for themselves.

Conclusion

Opioid use disorders are an increasingly challenging public health hazard in Afghanistan. Afghanistan is unlikely to be immune from the harmful effects it produces at such large quantities. There are very little incentives or alternatives to reducing the production of opium in Afghanistan. The unemployment rate is soaring as well. These factors put the Afghan population at risk for opioid dependence. Children are not spared as the parents provide access to the opioids. Thus, the next generation may experience exaggerated effects of opioid use by current population. Interventions such as disseminating accurate information on the use of these substances, the treatments available, along with training more clinicians and substance rehabilitation counselors can be the most cost-effective measures for the country. This approach has been effective in other areas in Afghanistan. Future well established studies are needed to address the unique needs and challenges of the Afghan population. The first step in identifying effective therapeutic measures would be to better understand the issue. Therefore, future studies are needed to establish the prevalence and pattern of opioid use in order to devise effective measures to curtail the opium plight of the Afghan people.

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