COUNTRY REPORT

Treating heroin addiction: Bridging the past and future – a Malaysian experience

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Introduction

Malaysia, with a population of 28.25 million, consists of Peninsular Malaysia and the Borneo states of Sarawak and Sabah. Substance abuse has been prevalent in Malaysia since the 19th century. In the early 20th century, the main drug of abuse was opium, which was primarily restricted to Chinese and Indian immigrant laborers who were introduced by British colonialists to work in Malaya (Noorzurani et al., 2008). However, the pattern of consumption changed in the 1970s when heroin became the abused substance of choice and Malays were the main ethnic group involved in heroin abuse compared to other ethnic groups, namely the Chinese and Indians (Noorzurani et al., 2008; Rusdi et al., 2008). By the 1980s, heroin use among Malaysian youth reached national crisis proportions (Navaratnam, 1988; Chawarski et al., 2006). A total of 194,897 drug dependents were registered by the National Anti-Drug Agency (NADA) in 1988; however, at the end of 2004, the numbers of drug dependents were estimated to be between 202,075 and 607,647 (Mahmood et al., 2005). By 2009, the cumulative number of confirmed drug addicts exceeded 300,000 (Sangeeth et al., 2009; Narayanan et al., 2011).

Source of data

Information and data was obtained from NADA, the Narcotics Department of the Royal Malaysian Police, drug research centers and universities, and through a PubMed search of the literature. Data was collected from reports dated from 1988 to December 2009. Data included number of government drug treatment institutions (Serenti), amount spent to upkeep these centers, outcome of the treatment program, number of centers providing methadone maintenance programs and number of heroin addicts registered in methadone maintenance programs.

Anti-drug efforts in Malaysia in the 1980s

By the 1980s, the prevalence of heroin abuse had increased substantially; this led the Malaysian govern-
ment to consider heroin addiction a threat to national security. Since then, Malaysia has implemented a multifaceted anti-drug strategy (Scorzelli, 1992; Noorzurani et al., 2008) to reduce the supply and demand of drugs. It became mandatory for heroin addicts who tested urine positive to undergo a compulsory two-year drug treatment program in an institutional setting, aptly termed Serenti (one-stop center), followed by another two years of aftercare rehabilitation in a community setting. At that time, it was believed that a massive effort in law enforcement, preventive education, treatment and rehabilitation would eliminate the country’s drug problem. Initially, a study in 1987 suggested that Malaysia’s effort had contributed to a steady decrease in the number of identified drug abusers, but the country’s recidivism rates were still high (Scorzelli, 1992; Mahmood, 1999).

The high relapse rates prompted the Malaysian government to place greater effort into the drug treatment institutions (Serenti) and an aftercare community-based rehabilitation program. Nevertheless, a follow-up study conducted in 1990 demonstrated that the institutional drug treatment program was not successful in eliminating drug abuse (Mahmood, 1999; Sangeeth et al., 2009). By 2005, 28 Government drug rehabilitation centers, costing approximately RM50 million, were established, with each center accommodating up to 500 residents at any one time (http://www.adk.gov.my; Noorzurani et al., 2008). The centers, managed on a total abstinence philosophy, produced poor results. Reports showed that as many as 85% of heroin addicts relapsed after completing rehabilitation at these centers (Navaratnam et al., 1992; Chawarski et al., 2007). These reports thus raised some questions about the effectiveness of the country’s drug treatment centers (Narayanan et al., 2011).

Other Malaysian government responses included strengthening the Narcotic Department of the Royal Malaysian Police to manage the supply reduction strategy (i.e. trafficking and manufacturing of drugs in Malaysia), formation of NADA in 1988 to attend to the demand reduction strategy (i.e. rehabilitate heroin addicts), and legislation for mandatory death sentence for people caught trafficking more than 15 g of heroin (National Narcotic Agency, 1998). In addition, NADA was given the authority to enforce the National Anti-Drug Agency Act 2004 and the Drug Dependants (Treatment and Rehabilitation) Act 1983. Despite all these efforts, the number of drug dependents and abusers including heroin addicts increased every year. In response to the poor results, substitute treatment with methadone was introduced in 2005 as part of the treatment program for heroin addicts (Malan et al., 2006).

Challenges to treating heroin addiction in Malaysia

As mentioned earlier, despite three decades of managing drug use problems, outcomes in Malaysia have been unpromising and poor. Many factors have been identified, but the main contributory factors are as follow: (i) The government drug treatment program practiced only a single treatment modality – the regimental rehabilitation program in institutions (Serenti). (ii) The government focused on bringing drug dependents to treatment through the criminal justice system. Very little was done to bring drug dependents voluntarily into treatment. Of the 28 government drug treatment institutions, only one was dedicated to voluntary treatment and rehabilitation. (iii) The earlier approach did not focus on medical treatment. Only recently was the medical profession invited to review the policy of treating heroin addiction in Malaysia. This was despite strong published evidence that addiction to drugs is a medical condition. (iv) The stigma of being a product of the government drug treatment program, and fear of rejection by the community and losing their freedom once they entered a rehabilitation program made heroin users avoid seeking early treatment (Habil, 2001; Mazlan et al., 2006; Chawarski et al., 2007; Noorzurani et al., 2008; Rusdi et al., 2008; Narayanan et al., 2011).

As noted earlier, the government drug treatment program required a heroin addict to be placed as an in-house resident in a Serenti center for two years, forcing a majority of heroin addicts to resign from or lose employment (National Narcotic Agency, 1998). At the end of the two-year program they had no opportunity to work when they left the centers (Navaratnam, 1988). This could be why many rehabilitation inmates resorted to crime once leaving the rehabilitation centers. Some heroin addicts reported that they perpetrated crime to support their daily living. However, this is only partially truthful as it was observed that some perpetrated crime to support their addictive behavior. Once discharged from the centers, and without strict abstinence enforcement, heroin addicts relapsed to their previous heroin usage. This supports the idea that forced abstinence while in rehabilitation centers does not sustain abstinence from heroin use (Habil, 2001; Mazlan et al., 2006; Chawarski et al., 2007; Noorzurani et al., 2008; Rusdi et al., 2008).
The types of crimes reportedly perpetrated by heroin addicts included fraud, shoplifting, snatch theft, selling drugs and house breaking (Karolin, 2005). If caught, the crime may lead to imprisonment, and another problem and second stigma is added to the heroin addict. Imprisonment further confirms the community’s view that heroin addicts are criminals and should be alienated, thus resulting in total rejection of addicts from the community and from their families (Navaratnam, 1988). Alienation may worsen the emotional state of the heroin addict and cause depression and loss of hope, making it challenging for the therapist and clinician to motivate addicts for treatment (Habil, 2001). Furthermore, the combined rejection by the community and family limits the heroin addict to confide in their peer heroin addicts, which is when they may start sharing needles. This could explain the cycle of addictive behavior and how it correlates with HIV and AIDS. It is very unfortunate that in the past the medical community dealt with these heroin addicts after they had already contracted these complications (Habil, 2001; Chawarski et al., 2007; Rusdi et al., 2008). Sharing of needles by heroin addicts also exposes their spouses to the risk of HIV/AIDS and other infections (Chawarski et al., 2007; Naveen et al., 2012). This is another problem, which can be prevented if the addiction cycle is intervened with appropriate medical treatment (Mazlan et al., 2006; Noorzurani et al., 2008; Rusdi et al., 2008).

The failed institutionalized drug treatment program reportedly affected both heroin addicts and their family members as more than 50% of heroin addicts who underwent rehabilitation program were breadwinners of their families (Navaratnam et al., 1992). The loss of the sole breadwinner to the two-year rehabilitation program caused emotional and financial stress to families. This disruption to the family system could explain why the children of heroin addicts were at more risk of social and mental problems and of becoming heroin addicts themselves.

In recent years, both professionals and the public have expressed concern about the failure of the institutionalized drug treatment program in tackling heroin addiction in Malaysia (Navaratnam et al., 1992; Habil, 2001; Narayanan et al., 2011). It was suggested that the duration of stay should be shortened to less than six months as shorter rehabilitation makes it possible for heroin addicts to remain within the community without depriving them of their employment potential or maintaining their role as the breadwinner of the family. A shorter stay would also save costs. By reducing the stay to less than six months, the government is expected to incur less than a quarter of the total cost currently spent. Nonetheless, the most expensive cost, which is unquantifiable, is still borne by the families of heroin addicts who are left to fend for themselves mentally and financially (Mazlan et al., 2006).

**A new era of managing heroin addiction: Medical treatment for heroin addiction**

The latest literature confirms that addiction is a brain disorder categorized as a mental disorder (Chawarski et al., 2006). Thus, managing heroin addiction can only be taken seriously as a medical issue once everyone has been convinced that heroin addiction is an illness (Mazlan et al., 2006). Effective intervention for heroin addiction is only complete when combined with medical strategies (Habil, 2001).

Recognizing this, the national taskforce on harm reduction, comprising multisectoral inputs from government and non-government agencies was set up after realizing the magnitude of the HIV/AIDS problem among heroin addicts in Malaysia (Mazlan et al., 2006; Chawarski et al., 2007; Noorzurani et al., 2008; Narayanan et al., 2011). Although the initial suggestion to set up the task force was made in 2000, it was only fully implemented in 2005. Prior to 2005, there were some clinic-based opioid substitution therapies conducted by private practitioners; however, there are no official records on the number of clients or clinics that were involved in substitution therapy. The initial objective of setting up the national taskforce was to review and determine the role of drug substitution treatment to prevent the spread of HIV among heroin addicts. Its successful implementation was mainly due to the combined efforts of the Ministry of Health, Malaysia, the universities and non-governmental organizations (NGOs), which ensured urgent implementation of the program (Mazlan et al., 2006). The methadone maintenance treatment (MMT) program was launched in October 2006. A pilot national MMT study (phase 1) was conducted in eight government clinics, two primary care clinics and eight private general practitioners clinics on 1,200 heroin addicts. Methadone treatment was offered free at selected government and private clinics. The criteria for entry into the program included evidence of heroin dependence, such as having withdrawal symptoms when not taking heroin and having taken heroin for at least 2 years, being over 18 years of age and willingness to undergo the program. The exclusion criteria included being younger than 18 years of age and having an abnormal liver function test.
The majority of participants (97%) were males aged between 26–30 years, single (57%) and employed (75%). At induction, methadone was started at 5–10 mg and for maintenance, the range of methadone doses was from 80–100 mg per day (Noorzurani et al., 2009; 2010; Narayanan et al., 2011). Urine and/or saliva test for opiates were collected at random intervals to assess abstinence from opiates (Robson et al., 2010a). The outcomes measured included reduction in risk behaviors towards HIV infections (using the HIV Risk Behaviour Scale) and quality of life (WHO Quality of Life Assessment), such as reduced involvement in criminal activities, positive psychological functioning, positive social functioning and the ability to hold a permanent job (Abd Rashid et al., 2010a).

Results from phase 1 of the national methadone maintenance program showed good retention rates. At 12 months, 66.3% of heroin addicts had secured a permanent job and only 3% tested positive in urine to opiates (http://www.adk.gov.my). While on methadone, patients also attended regular counseling sessions provided by NADA. This was the first arrangement nationally to combine the resources of clinicians, NGOs and NADA in treating heroin addicts (http://www.adk.gov.my; Mazlan et al., 2006). In 2007, a phase 2 program scaled up the number of heroin addicts to 5,000 and included 16 government hospitals, 15 primary care clinics and 24 private general practitioners.

The results of a recent review showed that methadone maintenance therapy improved compliance to the treatment program (Mazlan et al., 2006). Compliance to treatment was observed to reach as high as 80%. The advantages of this treatment were not confined to the retention rate only, but also in ensuring patients that maintained their occupation and quality of life. Many heroin addicts reported the ability to both maintain their social and family responsibilities.

NADA, which started its MMT program in 2008, focused on abstinence-based treatment and rehabilitation. The data from three NADA district service centers collected from volunteers are presented in Table 1. Overall, the NADA MMT program showed promising results. The program has since been scaled up to 24 district services involving 927 clients (Sangeeth et al., 2009).

The medical-based approach to treat heroin addicts was also found to be cost-effective. The cost of treating a heroin addict with drug substitution therapy was RM400 per month, but it cost approximately RM3,000 per patient per month to treat them in a Government drug treatment institution (http://www.adk.gov.my). On the other hand, another major cost would be incurred if heroin addicts contracted hepatitis, HIV or AIDS. In Malaysia, the cost of treating hepatitis C was approximately RM15,000 per patient per month (Abd Rashid et al., 2010b). As most heroin addicts cannot afford to pay this amount, the cost is usually borne by the government, which adds financial burden to the nation.

The opioid substitution program was supported by the government and had a clear advantage over the institutionalized drug treatment program. Heroin addicts were offered a choice of programs to suit their needs. They could choose either psychological counseling or spiritual-based counseling. Some were also offered employment placement/training. This ensured that addicts were ready for employment (Mazlan et al., 2006). Furthermore, it was observed that addicts were more ready for counseling and concentrated on the rehabilitation program due to absence of withdrawal symptoms or the intoxicating effects of heroin. Most recently, preliminary reports have shown good response to opioid substitution therapy. After taking into consideration social, religious and cultural issues in multicultural Malaysia (Robson et al., 2010b) and harm reduction potential, there are plans to further expand the methadone maintenance program (Narayanan et al., 2011). Preventive and promotive programs such as healthy lifestyle campaigns and drug prevention campaigns have been organized by the Ministry of Health, Malaysia in collaboration with NADA and the Royal Malaysian Police, after recognizing that opioid substitution program alone is not able to reduce the heroin problem (Narayanan et al., 2011).

### Table 1. Outcome of the methadone maintenance treatment (MMT) program at three National Anti-Drug Agency district service centers (n = 150)

<table>
<thead>
<tr>
<th>Outcome of MMT</th>
<th>Time (months)</th>
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<tbody>
<tr>
<td>Retention rate (%)</td>
<td>96.4</td>
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<tr>
<td>Urine positive for opiates (no. cases)</td>
<td>71</td>
</tr>
<tr>
<td>Employment rate (%)</td>
<td>48.2</td>
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</tbody>
</table>

NA, not available.

### Conclusion

The drug abuse problem in Malaysia has created a threat to public health and social security, in particular through drug abuse-related crime and HIV transmission. Thus the approach to reduce heroin addiction in Malaysia has undergone various processes recently. Recognizing that treatment of drug addicts requires
short-term treatment and long-term maintenance programs, the Malaysian government has introduced new policies involving methadone substitution therapy and counseling, offering more treatment options to deal with heroin addiction. This new policy requires support and cooperation from all parties involved.

References


