Abstract
Substance misuse, in particular heroin addiction contributes to health and social problems. Although effective medical treatment was available, earlier efforts confined the treatment of heroin addicts to in-house rehabilitation which required them to be estranged from the community and their families for 2 years. The in-house rehabilitative programme, implemented for at least three decades has produced low abstinence rates. On the other hand, being ‘away’ meant that many heroin addicts faced employment problems and family relationship difficulties upon completing the in-house rehabilitation. However, recently, the concerted efforts by various government and non-government organisations, and the acknowledgement that heroin addiction is a medical illness has resulted in a revamp to approaching treatment of heroin addiction. At present, methadone substitution programmes have been offered as part of treatment programme for heroin addicts in Malaysia. This new programme has been shown to be effective in treating heroin addiction and would need support and cooperation from all groups involved.

Keywords: heroin, addiction, methadone, substitution, narcotic

Introduction
Substance abuse has been prevalent in Malaysia for more than a century. In the early 20th century, the main drug of abuse was opium which was mainly consumed by Chinese immigrants who were introduced by the British colonialist to work in Malaya. In the later part of the 20th century, consumption patterns changed where heroin became the abused substance of choice and Malays were the main ethnic group involved in heroin abuse compared to other ethnic groups (1, 2).

By the later part of the 20th century, the prevalence of heroin abused increased substantially and this made the Malaysian government consider heroin addiction as a threat to national security. Early government response included: the formation of the national anti-drug task force to control trafficking and to rehabilitate heroin addicts, and legislation where mandatory death sentence was implemented for those who smuggled more than 15 grams of heroin (3). It is mandatory for heroin addicts found to be drug positive to undergo compulsory rehabilitation for two years (4).
Up to 28 government drug rehabilitation centres, costing approximately RM 50 million were established, where each center accommodated up to 500 inmates at any one time (5). The centres, managed on a total abstinence philosophy however produced poor results. Reports showed that as high as 85% of heroin addicts relapsed after completing their rehabilitation at these centres (4, 6). In response to the poor results, substitute treatment with methadone was recently introduced as part of treatment programme for heroin addicts (7).

**Challenges to treating heroin addiction in Malaysia- the past**

Heroin misuse contributes to complicated health and social problems to our country. Despite three decades of managing these problems, outcomes are unpromising and poor. Among the reported contributory factors are: (i) treatment policy which had been confined to a single treatment modality- the regimental rehabilitation programme, (ii) despite strong published evidence that addiction to drugs is a medical condition, earlier approach had totally ignored the medical therapeutic approach. The medical profession was only recently invited to review the policy of treatment for heroin addiction in Malaysia (iii) the stigma of the illness and rehabilitation treatment which resulted in heroin users hesitant of seeking early treatment. Heroin users were reported to fear rejection by the community and of losing their freedom once they entered a rehabilitation programme (6-8).

Thus, as a consequence of ineffective treatment approach, there has been a continually increasing number of infectious diseases among heroin users and an escalating incidence of HIV and/or AIDS in Malaysia (8). The Ministry of Health, Malaysia reported that the cumulative number of HIV infections up to December 2005 was 71,000 cases, where more than 10% cases were AIDS positive. Most of the HIV infected persons are males (82 %) aged 20-40 years (6).

One of the requirements of rehabilitation was that a heroin addict needed to be placed as in-house resident for two years (3). This resulted in majority of heroin addicts being forced to resign or losing employment. At the end of 2 years, by the time they leave the centres, they lose the opportunity to work (2). This could be one reason why many of rehabilitation inmates resort to crime once discharged from in-house rehabilitation centres. Some heroin addicts reported that they perpetrated crime in order to support themselves and their families. However this is partially truthful as it was observed that many perpetrated crime to support their addictive heroin habit. This is because forced abstinence while in the rehabilitation centres do not cure the heroin addiction. Once discharged from the centres, and without strict abstinent enforcement, they relapse to their previous heroin usage (6-8).

The types of crimes commonly perpetrated by heroin addicts included snatch theft, selling drugs, fraud and house breaking (9). The involvement of heroin addicts in crime may result in imprisonment.
Thus, another problem and another second stigma is added. In this case, imprisonment further confirms the community’s view that heroin addicts are criminals and should be alienated, hence resulting in total rejection from the community and from their families (2). The resulting alienation may cause depression and loss of hope. This emotional state will worsen their heroin addiction, making it challenging for the therapist and clinician to motivate them for treatment (8). The combined rejection by the community and family limits the heroin addict to confide in their peer heroin addicts. Ultimately, the heroin addict’s condition will get worse, and this is the time when they may start sharing needles. This could explain the whole cycle of addictive behaviour 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 contacted these horrendous complications (6, 8). The sharing of needles by heroin addicts’ also exposes their spouses at risk of HIV and AIDS (6). There were many instances where husbands, who were heroin addicts with AIDS transmitted the disease to their spouses and children (7). This is another disaster, which could have been prevented if the addiction cycle was intervened with appropriate medical treatment.

The consequence of failed rehabilitation treatment not only affect heroin addicts but also their family members (4). More than 50% of heroin addicts who underwent rehabilitation programmes were the breadwinners of their family. For the family, the loss of their sole breadwinner to two year rehabilitation programme caused loss of financial and emotional support. This caused family stress which further disrupted the family system. This could be one explanation why the children of heroin addicts are at more risk of social and mental problems and of becoming heroin addict themselves.

Both professionals and the public have expressed concern about the failure of the in-house rehabilitation treatment programme in tackling heroin addiction in Malaysia (4, 8). It is therefore timely for the government to look at the process of how to maximise the cost benefit of the rehabilitation programmes. For instance, the duration and the type of heroin addict who needs such treatment should be reviewed. One of the suggestions is that the duration of stay should be shortened to less than 6 months.

The advantages of shorter rehabilitation include: firstly, this maintains the heroin addicts within the community without depriving them of their employment potential or maintaining as breadwinners of the family. The second advantage would be the cost saving to the government. It was reported that each addict cost RM3, 000 per month to rehabilitate. Thus reducing in-house rehabilitation to less than six months will incur less than a quarter of the total cost spent at present. Nonetheless, the most expensive cost is still borne by the heroin addicts’ family who suffer at being left to fend for themselves mentally and financially. This loss is of course is unquantifiable in Ringgit and Cents (7).
**Medical treatment- the future**

Managing heroin addiction can only be taken seriously as a medical issue once everyone is convinced that heroin addiction is an illness (7). Latest literature confirms that addiction is a brain disorder and categorised as a mental disorder (1). Thus, effective intervention for heroin addiction is only complete when combined with medical input (8).

Understanding medical treatment for heroin addiction is not limited to whether there is medication that could cure heroin addiction. For the present, no reports could offer promise of a medication to cure heroin addicts (7). However, the same argument could be used for conditions such as schizophrenia and diabetic mellitus, as there is also no medication that promises cure for such conditions. Hence, as there is no medicine which can cure addiction at present, the next objective is to find medication which can minimise the harm caused by heroin addiction. This situation is similar to diabetic mellitus, where drugs such as insulin and other hypoglycemic agents are prescribed to minimise the harm caused by the disease.

**A New Era of Managing Heroin Addiction**

The national drug substitution task force materialised after the realisation that the occurrence of HIV/AIDS among heroin addicts was out of control (6, 7). Although the initial suggestion was in 2000, it was only fully implemented in 2005. The objective of this task force was to review and determine the role of drug substitution treatment in order 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 organisations (NGOs) which ensured urgent implementation of the programme (7). A pilot national methadone maintenance treatment study was conducted on 1200 heroin addicts. Methadone treatment was offered free by selected government and private clinics. While on methadone, the patients also attended regular counselling sessions provided by the national anti-drug task force (AADK). This was the first arrangement nationally that combined the resources of clinicians, NGOs and AADK in treating heroin addicts (5, 7).

At review, the results showed that methadone maintenance therapy improved compliance to treatment programmes (7). Compliance to treatment was observed to reach as high as 80% (5). The advantages of this treatment were not confined to the retention rate only, but also in ensuring patients maintain their occupation and quality of life. Many heroin addicts reported the ability to both maintain their social and family responsibilities.

The cost of treating heroin addicts using a medical based approach was also found to be cheaper. For example, it cost RM 400 per month to treat a heroin addict with drug substitution therapy. On the other hand, it cost approximately RM 3000 per patient per month to manage heroin addicts for in-house rehabilitation. Another major cost would be incurred if the heroin addicts had contracted hepatitis, HIV or AIDS.
For example, the cost of treating heroin addicts with hepatitis C was approximately RM 15,000 per month. As most of the heroin addicts could not afford to pay, there is a possibility that the cost would have been transferred to the government and this would have been a financial burden to the nation.

The other advantage of methadone substitution programme was that it ensured that the heroin addicts were ready for training and counselling (7). They were offered a choice of programmes to suit their needs. They could choose to opt for either psychological counselling or spiritual based counselling. Some were also offered employment placement/training. On the other hand, it was also observed that the absence of withdrawal symptoms or intoxicating effects of heroin made the heroin addicts ready for counselling and able to concentrate on their rehabilitation programme.

**Conclusion**

In recent years, the approach to heroin addiction in Malaysia has undergone various processes. In-house rehabilitation programmes were first introduced; however the reported success rates were negligible. At present, the government have introduced new policies involving medical professionals that offer more treatment options to deal with heroin addiction. The new policy involving methadone substitution therapy and counselling have been proven to be effective in treating heroin addiction and would need support and cooperation from all parties involve.

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