A mosque-based methadone maintenance treatment strategy: Implementation and pilot results

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**Abstract**

Background: This paper describes the rationale, implementation and operation of a “world first” Islamic inspired methadone maintenance treatment project delivered in a mosque setting and presents the outcome for the first group of participants. The project explored the viability of expanding addiction recovery services through the network of mosques in Muslim communities.

Methods: The project combined methadone maintenance with peer and religious counseling. Participants consisted of 36 male Muslim heroin users who went through the project. Urine tests and self-reported measures on various dimensions relevant to drug use and quality of life were collected at baseline and 12 months.

Results: The project had a 12 month retention rate of 80%. At 12 months all but one participant tested negative for opioids and other substances. Self-report measures showed significant reductions in the degree and variety of drug use, improvements in general health, and psychological and social functioning of participants. Qualitative data showed that availability of methadone, convenient location and religion were the main reasons drawing participants to the program.

Conclusions: Mosques are viable venues for offering medication assisted recovery services and offer an alternative approach for managing addiction in Muslim communities. The prospect of mobilizing community resources to offer community-oriented long-term recovery management programs in mosques and other places of worship deserves consideration.

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**Introduction**

Malaysia is a religiously and culturally diverse country with a population of 28 million, a vibrant economy, and a serious illicit drug use problem. Heroin was introduced to the country in the 1960s and became the drug of choice among the majority Muslim Malays. This paper describes a “world first” Islamic inspired methadone maintenance treatment (MMT) project delivered in a mosque in Malaysia and presents the outcome for the first group of participants.

The project was recognized as Best Practice in Asia for harm reduction and fighting HIV/AIDS by the World Health Organization (WHO, 2011). It has received local and international media attention (Aljazeera, 2011; Bernama, 2013; CCTV, 2013; NYTimes, 2012) and has attracted the interest of addiction specialists and health officials from different faiths and countries.

There are compelling reasons for considering mosques as a suitable setting for offering addiction rehabilitation services. The idea of using mosques, and potentially other religion's places of worship, for addiction recovery is a logical extension of the mounting evidence pointing to the positive role of religion, spirituality, and psycho-religious approaches to the treatment of physical and mental health problems (Borras et al., 2010; Galanter, Dermatis, Post, & Sampson, 2013; Galanter, 2006; Hill & Pargament, 2008; Miller & Thoresen, 2003; Seeman, Dubin, & Seeman, 2003). Historically, religious rites and places of worship with rich traditions and symbols have offered a medium for reflection, devotion, redemption, and physical as well as emotional healing. In all faiths, religious pilgrimage is as old as the religion itself. Mosques have always served as a base for religious as well as community activities, social services and in recent times family counseling (Ali, Milstein, & Marzuk, 2005). The network of mosques in Muslim...
communities offer economical and readily accessible venues for drug rehabilitation that can attract and engage drug users in early treatment, reintegrate them into the community and help to sever ties with the drug culture. Also mosque-based services present a unique opportunity to project a constructive image of recovery from addiction reducing stigma and marginalization of drug users (Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008).

**The Spiritually Enhanced Drug Addiction Rehabilitation (SEDAR) project**

Increasing awareness of the benefits of medication assisted treatment (MAT) and the corresponding rise in the number of heroin users seeking treatment prompted the University Malaya Medical Center to propose a pilot program combining MMT with religious and psychosocial counseling to be offered within the grounds of a local mosque. It was believed, if successful, the pilot project would open the possibility for offering community-oriented addiction recovery and drug education and prevention programs in mosques in areas with high drug use problems. The proposed project, the Spiritually Enhanced Drug Addiction Rehabilitation (SEDAR), was supported by the Ministry of Health, the National Religious Affairs Department, and the National Task Force on Harm Reduction. The long-term objectives of the project were to: evaluate the feasibility of offering MMT on mosque premises, assess the willingness of opiate users to receive treatment in a mosque setting, investigate the efficacy of combining MMT with Islamic religious/spiritual practices, and assess the cost–benefits of offering MMT in religious settings compared with government sponsored clinics.

The proposal was approved by the University Malaya Medical School Ethics Committee Review Board and funded by the University Malaya with generous support from the Ministry of Health. A working group representing religious leaders, law enforcement officials, the university’s Academy of Islamic Studies, the Malaysia AIDS Council, the National Anti-Drug Agency, the relevant NGOs, and addiction specialists were entrusted to plan and monitor the project. Considering the political and religious sensitivities, the working group represented the widest possible range of stakeholders and the community’s values and beliefs. The religious scholars and addiction specialist members of the group developed the Brief Spiritual Intervention (BSI) component of the program based on Islamic teachings and practices. The working group reviewed and endorsed the operational and management procedures of the program.

The SEDAR project commenced operations in early 2011 in Ar-Rahman Mosque adjacent to the University Malaya campus. The mosque officials had welcomed the opportunity to be part of a pioneering project and participated in the working group. Most mosques in Malaysia are independently managed by a board of directors selected from the communities they serve. In 2012 the management of the Ar-Rahman mosque changed. The new leadership imposed several restrictions on the project including limiting the frequency and duration of working hours of the clinic. The expressed rationale included risks to the reputation of the mosque, concern with crime, and disturbing regular prayers. During the period prior to the change of management, there had been no complaints from the regular mosque patrons, incident of crime, or abuse of the mosque facilities that could be traced to the SEDAR project participants. The new conditions were counter to the service and quality ethos of the program.

Subsequently, the project was relocated to Surau Ad-Deeniah a fairly large facility designed for prayers that functions as a mosque. The building is located on the grounds of the University Malaya Medical School Center (UMMC) and almost exclusively is used by the university community. Surprisingly, the new location did not entirely escape passive disapproval and opposition from members of the university community. For example, a number of thefts and parking violations were erroneously attributed to the SEDAR clients. Clearly, government support, the extensive and lengthy consultations with national religious authorities, advocacy by the academic community and backing from NGOs had not changed the views of some ordinary people and influential opinion makers. Despite the disapproval the SEDAR program has continued to stay operational.

**The SEDAR Clinic (the Clinic)**

The Clinic is located within the mosque complex and staffed by an addiction medicine practitioner and counselors. Prior to enrollment applicants receive medical and psychiatric evaluation, are assessed for suitability for assisted medication therapy, and receive blood screening tests (liver function; HIV and hepatitis B/C). Participants with acute medical problems or psychiatric disorders are referred to specialist services at the UMMC and excluded from participation simply because the Clinic does not have the resources to manage them. The positive cases for HIV and hepatitis are also referred to the respective specialists for further assessment and management. The enrollment process is quick with a minimum of paper-work. Applicants who meet the criteria for enrollment in the program are accepted the same day they request service and receive detailed information about MMT and peer-counseling from a former heroin user. The peer counseling is focused on acceptance and commitment to a long-term treatment, change of lifestyle and preventing and managing potential relapse. Following evaluation for the optimum methadone dosage prescriptions are dispensed at the nearby UMMC Pharmacy. Methadone induction starts with daily dosage of 20–30 mg and gradually increased to a maximum maintenance dosage of 120 mg. Participants attend weekly follow-up visits during the induction phase and monthly visits during the maintenance phase. On each visit participants receive medical checkups, adjustments to methadone dosage, counseling support, and participate in the Brief Spiritual Intervention. Urine test are taken weekly during the induction phase and monthly at random sessions during the maintenance phase. Emergencies are referred to the nearby UMMC. After the 12 months participation in the pilot study, participants are referred to the nearest government sponsored MMT Clinic for follow-up and treatment.

**The Islamic view of addiction**

According to the current Islamic teachings in Malaysia addiction arises from a disconnection between the physical and the spiritual existence. Mental health interventions must facilitate the addicted person to reconnect with his/her spiritual self through renewing belief and relationship with God. Genuine faith in God (Tauhid) embraces the conviction that God is with them all the time, they are not alone in coping with addiction, and if they ask God for help, they can find inspiration and courage to overcome problems. Genuine belief requires following the wisdom handed down through the Holy Quran, traditions of the Prophet (Hadith), and the normative way of life prescribed for Muslims based on the teachings and practices of the Prophet and interpretations of the Quran (Sunnah). These teachings provide guidance to Muslims to do what is right and good and avoiding what is wrong and improper. Individuals with addiction require religious and spiritual guidance in order to develop self-discipline, regain physical and mental well-being and improved quality of life. The renewed belief and hope for earning the compassion and mercy of God is an essential ingredient in helping drug users to overcome their addiction.
The brief spiritual intervention

The Imam, the mosque religious head, and his assistant are trained to deliver the religious counseling services. On each visit, before entering the Mosque, participants exercise ablution which involves the ritual cleansing of the body in order to prepare for prayers. The prayers are performed individually or as a group led by the Imam aimed at renewing belief in God and submission to a higher power bestowing confidence and direction for abstinence, developing self-discipline and changing the drug user way of life. The first visit with the peer-counselor follows the standard practice in traditional counseling and psychotherapy. It begins with getting to know the participant, addiction history, and understanding the process and rules (e.g. confidentiality) of the program. The counselor explains the Islamic view of addiction and the benefits that can be gained from the combined medical and religious components of the SEDAR program. Group or individual sessions may involve but are not limited to: reciting selected motivational verses from the Holy Quran and interpreting what they mean to achieve and maintain sobriety and a satisfying drug free life; discussing progress and difficulties they may have encountered in managing their addiction and how to rely on faith to overcome obstacles; explore the importance of community service, family and supportive friends; teaching and practicing Zikr and how to use Zikr to manage cravings and avoid situations and activities that may lead to relapse. Zikr has a long and rich tradition in the history of Islam. It is a form of prayer in which Muslims express their devotion and remembrance of God through ritual recitation of names of God, supplications from hadith or verses from the Quran. The words or phrases are repeated, often hundreds of times, with deep concentration on the presence of God. In the context of addiction, the simplest form of Zikr involves simply always remembering God in one’s heart, or while concentrating on the existence of God directing one’s thoughts to achieving a desired goal, e.g. repel cravings or the positive consequences of being drug free. Participants are also encourage to engage in community service by assisting the mosque staff with administration and maintenance chores.

Findings from the pilot project

Participants

Initially participation was offered to the Muslim heroin users from the methadone waiting list at the UMMC Addiction Clinic. Thereafter walk-ins were welcomed. Participants did not receive any incentives for joining the program. Participation was voluntary subject to meeting the inclusion criteria and written informed consent. The inclusion criteria include:

Age 18 years and above,
Regular opiate use for at least one year,
Meet the DSM IV criteria for heroin dependence,
Normal liver function test; if abnormal, less than threefold increase of liver enzymes,
No acute medical illness or psychological disorder, and
No history of allergy to methadone.

The pilot analysis is based on 36 all-male Malay Muslim heroin users enrolled in the Ar-Rahman Mosque over a three month period beginning in February 2011 and met the required 12 month active engagement in the program. Participants were 18–58 years old with a mean age of 36; mostly low paid factory and clerical and sales workers (39%) and smaller numbers of owner-operators of small businesses (21%) and professional jobs (6%). Fifty nine percent were full-time workers with the remainder in part-time employment (27& or unemployed (14%). Fifty seven percent were single, 37% married, and six percent divorced or widowed. Eighty three percent had some high education and 6% had high school diplomas. The demographic profile (Table 1) of the SEDAR participants is similar to the opiate users who receive services from government clinics reported elsewhere in Malaysia (Lua & Talib, 2012).

Table 1
Demographic Characteristics of Participants (N = 36).

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–30</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>31–40</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>41–50</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>51 and older</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>1–3 years high school</td>
<td>14</td>
<td>39</td>
</tr>
<tr>
<td>4–5 years high school</td>
<td>16</td>
<td>44</td>
</tr>
<tr>
<td>High school diploma</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>Single</td>
<td>20</td>
<td>57</td>
</tr>
<tr>
<td>Divorced/widowed</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical/managerial</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Factory worker</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Clerical/sales/services</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>Own business</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>No known occupation</td>
<td>6</td>
<td>17</td>
</tr>
</tbody>
</table>

Outcome measures

In addition to urine tests taken weekly during induction and monthly at random during the maintenance phase, the following measures were collected at baseline and 6 and 12 months:

The Opiate Treatment Index (OTI)

OTI is a multi-dimensional tool for assessing a range of relevant outcome domains in opiate users undergoing treatment. The five OTI dimensions used in this program are: drug use, HIV risk-taking behavior, social functioning, criminality, and general health (Darke, Hall, Wodaki, Heather, & Ward, 1992; Deering & Sellman, 1996).

WHOQOL-BREF-M

This scale adopted from the WHO-QOL Index for use in Malaysia covers 4 domains plus two questions related to overall quality of life and satisfaction with health (Power, Bullinger, & Harper, 1999; WHO, 1998). This study used a single aggregate measure of QOL calculated by adding the ratings of all questions.

The Hatta Islamic Religiosity Scale (HIRS96)

The HIRS96 measures the level of knowledge and practice of common Islamic beliefs and sacraments (Salleh et al., 2000). The scale was included to explore changes in religiosity and its relationship with other measures.

Qualitative data

An independent interviewer who was not a member of the Clinic conducted individual sessions with a small number of randomly selected (N = 10) participants and held two focus group discussions (N = 4 and 7). The objective was to ascertain the participants’ perception of the SEDAR program and reasons for satisfaction or dissatisfaction with services they receive.
Table 2
Means and standard deviations for outcome variables at baseline and 12 months.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline M</th>
<th>Baseline SD</th>
<th>12-Months M</th>
<th>12-Months SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTI – drug use</td>
<td>30.85</td>
<td>27.77</td>
<td>8.09</td>
<td>9.12</td>
</tr>
<tr>
<td>OTI – HIV risk behavior</td>
<td>2.32</td>
<td>4.05</td>
<td>2.04</td>
<td>3.12</td>
</tr>
<tr>
<td>OTI – social function (dysfunction)</td>
<td>11.32</td>
<td>5.85</td>
<td>7.32</td>
<td>4.58</td>
</tr>
<tr>
<td>OTI – criminality</td>
<td>0.19</td>
<td>0.79</td>
<td>0.04</td>
<td>0.19</td>
</tr>
<tr>
<td>OTI – health problems</td>
<td>3.63</td>
<td>3.75</td>
<td>0.89</td>
<td>1.28</td>
</tr>
<tr>
<td>WHO – quality of life</td>
<td>78.36</td>
<td>12.13</td>
<td>88.09</td>
<td>12.06</td>
</tr>
<tr>
<td>HIRS96 – religiosity</td>
<td>18.69</td>
<td>5.87</td>
<td>19.94</td>
<td>5.79</td>
</tr>
</tbody>
</table>

Results

Eighty percent of participants were actively engaged in the program at 12 months after enrollment. The retention rate is higher than the government clinics offering MMT services and the UMMC Addiction Clinic and substantially higher than the 12 month average rate of 56.6% in low and middle income countries (Feeleymer et al., 2013). Initial urine tests showed that more than half of the participants were using various combinations of opioids, benzodiazepines, amphetamine type stimulants, and cannabis. At 12 month, one person tested positive for stimulants, all others tested negative for opioids and other substances.

Table 2 shows the means and standard deviations for outcome measures at baseline and 12 month. The data point to a significant drop in the mean scores of self-reported variety and degree of drug use with a fairly large effect size ($t = 4.25, df = 27, p < 0.00, d = 1.14$). The mean social subscale of the OTI shows a significant behavioral change ($t = 2.76, df = 27, p < 0.01, d = 0.76$) in relation to improvements in social networks, occupational stability, and family and social functioning. Similarly, change in the mean of the health subscale scores shows a significant improvement ($t = 3.81, df = 26, p < 0.00, d = 0.98$) in the physical and psychological well-being of SEDAR participants. The improvements in the social functioning and health of the participants is consistent with the significant increase in the aggregated Quality of Life index which includes social functioning and health ($t = -3.64, df = 21, p < 0.00, d = -0.80$). There were no changes in HIV risk behavior and criminality mainly because the participants had low scores on these dimensions at baseline. The small increase in the religiosity score did not approach statistical significance ($t = -0.76, df = 22, p < 0.49$), nor did it meaningfully correlate with other outcome variables.

Participant perceptions

The focus group participants were asked to use a word to describe the SEDAR Clinic. The most common words were methadone, convenience, friendly, helpful, and comforting. None expressed any dissatisfaction with services or staff. When asked to describe in order of importance why they had chosen to enroll in the Clinic, in order of frequency, the reasons were: wanting to be drug free, convenient location, ease of transportation, free services and the religious support of the program. Portrayal of the program in the individual interviews was similar to the views expressed in the focus groups. Ease of access, desire to be drug free, availability of MMT, a supportive and friendly environment were the most frequent reasons for choosing the SEDAR program. When asked to identify the most important effect of the participation in the SEDAR program on them as individuals, the replies were:

“I can work better and earn an income to support my family.” (38, single security guard)

“I do not feel shamed by my children and family.” (44, married shop-keeper)

“I am becoming the person I wanted to be earlier in life.” (52, divorced, sales clerk)

“Methadone has given my dignity back.” (45, married, owner of small business)

“I feel like an ordinary person now.” (29, divorced, office clerk)

Discussion and conclusions

The primary purpose of this paper was to present the implementation of a “world first” MMT clinic in a mosque setting in a highly religious majority Muslim society. The SEDAR project has been the subject of media interest as well as inquiries and visits from different countries and faiths. The most distinct aspect of such visits and the ensuing discussions has been the interest of Muslim and non-Muslim groups in combining religion and MAT for drug users, the opportunities and challenges in offering services to drug users in religious facilities, learning about the perception of drug users, and the efficacy of religiously-inspired service strategies.

Our experience suggests that the rationale behind the SEDAR program is sound and a promising alternative to managing heroin addiction. The fairly high retention rate, the physical evidence of sobriety, self-reported change in the degree and variety of drug use, and significant improvements in general health, psychological and social functioning of participants supports this assertion. Data from the pilot project indicate that compared with other service delivery modes offered in Malaysia, the SEDAR project meets and in some respects exceeds (e.g. treatment retention rate) acceptable MMT outcome criteria.

The qualitative data indicate that access to affordable methadone, geographic accessibility, the sympathetic atmosphere, and counseling support are the key factors drawing heroin users to the SEDAR Project. The idea that free methadone and a convenient location are strong factors that attract and engage drug users in the Clinic supports the desirability of wider availability of MAT. The importance participants attach to their priorities reflects the urgency to manage their physical dependence on heroin and to maintain sobriety. The lower priority attached to religion does not make religion or the religious component of the SEDAR program any less valuable. Participants find the mosque setting a comforting and soothing environment and believe that the religious teachings are helpful and important to them.

The pilot project has demonstrated that it is possible to provide addiction treatment services in a mosque setting with a fair degree of success. The success has not been without unexpected challenges. The disapproval from the mosque management and those who use mosques has promoted deliberation in order to identify sources of opposition and ways to garner broader support for mosque-based services. The disapproval often is indirect and expressed in a passive manner. More research is needed to investigate the reasons behind the opposition. The issue of “the reputation of the mosque” mentioned in the interview with the Ar-Rahman Mosque official (Aljazeera, 2011) may provide a starting point to explore the subject. There are numerous references to the value of community service, education and caring for others in Islamic teachings. Mosques have clear restrictions on the use of the area set aside for prayers which forms sections of the larger structures. Otherwise use of mosques is governed by rules of various sects and local traditions. Historically, mosques have played an important role serving as centers for education, dispute resolution, socio-religious functions, civic activities and religious oriented social functions. There is nothing formal or official in Islam that restricts or prohibits Muslims with addictions from patronizing or receiving medical and psycho-spiritual services in a mosque.
Therefore one must look elsewhere for potential sources of opposition. A possible source of opposition may be the image and reputation of people with addictions. With the exception of drug users occasionally depicted as alluring and gallant characters, the image of addicts portrayed in the media especially TV and the cinema often is one of an insalubrious and troublesome bunch (Cape, 2003). A deeply rooted perception of “addicts” as unhealthy, undesirable and dangerous may contribute far more to the opposition than the image of drug users as faithless and unbelievers who do not belong to nor deserve to be supported by services of mosques. Our experience suggests that government policy and sanction as important as they have been in promoting medico-social solutions to drug rehabilitation, they have not changed the way groups and individual opinion makers perceive addiction and addiction treatment. Decades of social science research points to the complexity of changing attitude and individual behavior through social policy and legislation. Empirically based targeted efforts are needed to change the mind and hearts of small groups and individual thought leaders. These efforts require patience and time to succeed. The motto of the Alcoholic Anonymous philosophy, one step at a time, provides a fitting strategy.

Future directions

The SEDAR project focused on the viability of delivering MMT in a mosque complex and assessing its global outcome. Several aspects of the project deserve further investigation. We believe that similar community-based treatment programs in other places of worship and religious practices deserve attention. This project may prompt experimentation in other religious settings. Research on the comparative influence of religiosity and causal attributions in relation to addiction that may contribute to addiction stigma among Muslims is of immediate interest. More rigorous outcome studies involving control groups are needed. Beyond the global outcome presented in this paper, identifying the effective ingredients of the SEDAR program has conceptual as well as practical implications. Is MMT alone delivered in a mosque as effective as when it is combined with psychosocial and/or religious counseling? Is MMT delivered in a mosque more effective than when it is delivered in a clinic setting? Can the Brief Spiritual Intervention be further developed as a standalone efficacious psycho-religious intervention for managing addiction? Finally, the concept of “recovery”, its operational definition and implications for drug treatment and policy, has been the subject of much debate (Bourgois, 2000; Kleinig, 2008; Laudet, 2008; White & Evans, 2013; White, 2009b). Perhaps the more ambitious goal is the prospect of mobilizing the Muslim community resources in order to transform mosque-based addiction treatment to a person-centered, solution-focused, and community-oriented long-term recovery management strategy (White & Mujer-Torres, 2010; White, 2009a).

Conflict of interest statement

This research was funded by the University Malaya and Malaysia Ministry of Health. No constraints on publishing are imposed by the funders. Authors have no financial conflict of interest arising from involvement with organizations that seek to provide help with or promote recovery from addiction.

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