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Challenges in providing service in methadone maintenance therapy clinics in China: Service providers' perceptions

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Abstract

Background—The Methadone Maintenance Therapy (MMT) program has been initiated in China since 2004. As of the end of November, 2008, 558 MMT clinics had been established countrywide. The objective of this study was to elucidate the difficulties and challenges as perceived by service providers working in MMT clinics.

Methods—One service provider from each of the 28 MMT study clinics in Zhejiang and Jiangxi Provinces of China participated in a face-to-face in-depth interview for about 1–2 hours to describe their perceptions of working in MMT clinics. Qualitative data were analyzed using ATLAS.ti. The grounded theory was used to guide the data analysis.

Results—Participants identified major problems in providing services in MMT clinics including lack of resources, professional training, and institutional support. Difficulties in pursuit of career, concern for personal safety, low income, heavy working load, and poor opinion of MMT by Chinese society often contributed to greater stress and burnout among the service providers.

Conclusion—The MMT programs in China desperately need additional resource allocation and institutional support for the current and perhaps future expansion of the programs. The service providers are in urgent need of professional training to improve the quality of care they can offer MMT clients.

Keywords

Methadone Maintenance Therapy; China; qualitative; service providers

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Conflict of interests
None

Introduction

It was estimated there were 3.5 million drug users in China in 2007 (Wu et al, 2007). For many decades, the Chinese government has advocated a punitive approach for controlling drug use. According to "Regulations on Prohibition Against Narcotics" adopted by the National People's Congress in 1990, which expired in 2008, those who used drugs and developed drug dependence were to be placed in residential rehabilitation centres for compulsory detoxification. Drug users who relapsed after compulsory detoxification would be placed in re-education-through-labour centres for one to three years (National People's Congress of China, 1990). The average length of stay was two years, during which the residents were forced to perform labour and participate in additional education, training, and therapeutic programs to enforce abstinence (Tang, 2001). Despite this continued mandatory intervention, the estimated abstinence rate three years after discharge was only 15% (Tang, Zhao, Zhao, Cubells, 2006). Several studies have shown that the forced labour approach is not effective for stopping drug dependence (Li, Mao, 1999; Wang 1999).

A groundbreaking step was taken in 2004, when, based on scientific evidence indicating the success of the Methadone Maintenance Therapy (MMT) in reducing HIV/AIDS risk behaviours and other negative consequences of drug dependence (Gossop, Trakada, Steward, 2005; Joseph, Stancliff, Langrod, 2000; Kerr, Marsh, Li, 2005), the Chinese government initiated eight pilot MMT clinics in the five provinces with the most drug users and HIV cases (Wu, 2004 and 2005). With the success of the pilot clinics (Pang et al, 2007), the MMT program was scaled up. As of the end of November, 2008, 558 MMT clinics had been established nationwide in 23 provinces. These MMT clinics have cumulatively served more than 170,000 clients. The use of MMT has been incorporated into the government's AIDS regulations as treatment for drug addiction (Wu, 2007).

The rapid development of the MMT program in China has increased the demand for qualified service providers to work in the clinics. Typically, each MMT clinic is required to have eight to ten staff members, including doctors, nurses, consultants, pharmacists, data managers, and security personnel. Doctors responsible for the maintenance treatment are required to be certified physicians authorized to prescribe analgesic and psychotropic drugs (Ministry of Health, Ministry of Public Security of China, & SFDA, 2006). A National MMT Training Centre based in the Yunnan Institute for Drug Abuse (YIDA) was established to provide clinical support and training for clinical staff working in MMT clinics. At the opening of new clinics, YIDA and China Center for Disease Control and Prevention (CDC) specialists are on the site for about five days to instruct and provide technical support (Yunnan e-government, 2006). The current service delivery in the MMT clinics includes daily methadone dispense. In addition, comprehensive services include referrals for testing of sexually transmitted infection, social support, skills training for employment, are in the early stages of being incorporated into the MMT clinics (Wu, et al, 2007). These supportive services have been provided only sparingly and the frequency, format, and quality of the services are not consistent across clinics (Pang et al, 2007). Given its recent emergence, the MMT program in China presents special challenges such as low coverage of the total opioid-using population (Li et al, 2007a) and high client drop-out rate is high across all sites (Qian et al, 2006). The barriers and facilitators for successful implementation of the program have not been fully studied.

Service providers play an important role in the implementation of MMT programs and client outcome, yet the nature of being chronically under-resourced can negatively impact these individuals. Shoptaw and colleagues (2000) surveyed drug counsellors and clinic directors and found those working in MMT settings reported significantly higher levels of emotional exhaustion and depersonalization compared to counsellors in non-MMT drug treatment settings. A study in Russia reported major challenges in service provision for drug users,

including lack of resources, rehabilitation programs, and social support (Bobrova et al, 2008). Another study of service providers in Canada identified potential barriers to implementing harm reduction strategies, including lack of staff and funding, as well as anticipated staff resistance (Hobden & Cunningham, 2006). Given the relatively short history of MMT implementation in China, we speculated that the service providers are also facing potential difficulties and challenges when trying to provide optimal service in MMT clinics. Our study used qualitative methods to elucidate the actual experiences of service providers working in MMT clinics: what they do, what they think of the job, and what practical difficulties they face within a Chinese context. The objective of this study was to document the difficulties and challenges as perceived by MMT service providers which may possibly contribute to the low coverage and retention rate in MMT clinics in China. The findings from this study should be used to formulate strategies to enhance the service and eventually increase the number of client and improve the retention rate for the Chinese MMT programs.

Methods

Study sites and participants

The study was conducted in Zhejiang and Jiangxi Provinces, China between March and September, 2008. At the time of the study, there were a total of 28 clinics in the two provinces collectively and cumulatively treated 7,671 clients, of whom 3,944 were still in treatment. The average number of clients in the study clinics (215) was comparable to the number of other clinics (194) in the country (Reid and Aitken, 2009). One service provider from each of the 28 MMT study clinics participated in a face-to-face in-depth interview. Recommendations for interview participants were obtained from the head of each MMT clinic, in order to include service providers who were relatively better informed. The service provider had to be at least 18 years old and to have been working in the MMT clinic for more than three months to participate. To obtain comprehensive information, we selected service providers of different ages, genders, and levels of education and professional training. Using standardized recruitment scripts, study investigators approached the recommended individuals and invited them to participate in our study. The refusal rate was about 3%.

Table 1 presents the demographic characteristics of the study participants. Of the 28 service providers interviewed, 12 (42.9%) were female, with age ranging from 26 to 65 years. Five (17.9%) were nurses, 11 (39.3%) were clinic directors, and the remainder were doctors. About half (46.4%) of the service providers were previous working in CDC, and the rest were from hospital (46.4%) or voluntary detoxification centre (7.1%). At the time of the survey, 6 (21.4%) had been worked in MMT clinics for more than two years, and 14 (50.0%) of the sample had obtained a five-year medical degree or higher.

Data collection

Before the interview, respondents were informed of the study purpose, procedures, and potential benefits and risks of the study. The potential participants were informed that the research was not part of their responsibility as a staff member, and that their decision about participation would have no effect upon their employment status. Informed consent procedures were administrated to assuring that participation was voluntary. All participants received 40 Yuan (U.S. $5.88) for their participation. The study was approved by the Institutional Review Boards (IRB) of both the University of California, Los Angeles (UCLA), and the Chinese Centre for Disease Control and Prevention (CCDC).

The in-depth interviews were conducted by two investigators who have had extensive experience with conducting qualitative interviews. Interviews lasted approximately 60–120 minutes, and took place in a private room. All interviews were digitally audio-recorded for

analysis and quality control. There were no personal identifiers linked to the recorded interviews. Demographic data (age, gender, education, and years of service) were collected at the beginning of each interview. Interviews were semi-structured according to specific guidelines, and included a set of open-ended probes to be used when necessary. The interview guide targeted the following domains: (1) general situation in the MMT clinic and working procedures; (2) training received; (3) perceptions of the relationships between service providers and clients; (4) perceptions of institutional support; (5) the difficulties of implementing the MMT program; and (6) suggestions for better management and provision of services.

Data analysis

After interviews were completed, the digitally recorded interviews were transcribed verbatim in Chinese. Cross–checking and confirmations of the transcriptions were done to assure the quality of work. The data were analyzed using ATLAS.ti (Muhr 1997), a qualitative data analysis software package. A grounded theory approach was used to analyse the data (Glaser & Strauss, 1967). A first draft of the code list, which consisted of common themes noted in the transcripts, was developed based on the interview guidelines and actual content of interview transcripts. The code lists were revised throughout the analysis process. The final coding system had a total of 52 codes and eight code "families" (groups of codes with the same theme). Analyses were conducted by identifying the themes occurring most frequently, and putting them in the context of other information conveyed by the participants (Sandelowski, 1986). All transcriptions, coding, and analyses were completed in Chinese, and the results were later translated into English.

Results

From the interviews, we learned that most of the service providers work in the MMT clinic setting based on the director's determination and not of their own volition. Consistent with this observation, the turn-over rate of MMT service providers is high and that service providers were not enthusiastic about their work. Code and text searches of the interview transcripts revealed several themes regarding the barriers against implementing MMT programs, and are described below.

Financial difficulties

Clients pay 10 Yuan (1.47 USD) for methadone every day. In addition, the central and local governments subsidize the MMT clinics at varying degrees for the day-to-day operations. However, many of the service providers complained that these funds were insufficient to cover the clinic's rent, utilities, staff salary, and other expenditures. The situation was severe in the clinics with relatively fewer clients. Financial difficulties hinder comprehensive services for clients and opportunities for service providers to receive work-related training. Most importantly, service providers become demoralized and doubt the clinic's sustainability.

> I don't know how long the methadone clinic can last. To my knowledge, many clinics have only a few clients and are in deficit. Our CDC is running this clinic at a loss, and if this continues, other staff and workers' welfare will also be compromised (Male, 51 years old, college graduate, clinic administrator from a CDC-affiliated MMT clinic).

> Last time I proposed giving compliant clients some incentive, the director said that there were only 40–50 clients in our clinic, and we collected only 400–500 Yuan (about 60–70 USD) per day. The hospital must pay staff salaries, so there is not really any money for other activities and incentives. Our director had applied for financial aid from some departments and agencies but he never heard back from them (Male,

33 years old, associated college graduate, doctor from a hospital-affiliated MMT clinic).

Lack of professional training

Because of the rapid implementation of the MMT program and lack of training resources, only up to two providers per clinic can get formal national training from YIDA. The other service providers learned indirectly from the nationally-trained providers. In some clinics, none of the providers had the chance to receive national-level training. There was no additional ongoing in-service training. Most respondents did not have a clear understanding of the meaning of harm reduction which had resulted in relatively low acceptance of the maintenance treatment approach. Some service providers stated the confliction between MMT and the current China narcotic laws and regulations. In addition to the confusion of the policy, many respondents said that they feel uncomfortable prescribing methadone and interacting with drug users, given their perceived lack of expertise in treating addiction. Although there are national guidelines on appropriate methadone doses to administer to MMT clients, service providers typically fear malpractice liabilities in spite of the guidelines. Additionally, the service providers felt uneasy about answering the clients' questions regarding long-term treatment plans, side-effect management, and alternative detoxification treatments, which diminished the confidence of their clients.

> I attended the training sessions in Yunnan, but I still feel there is a lot that I don't know. For example, one client asked me about "1+3" detoxification treatment the other day, and I had no idea what that was. Besides, I still don't have a clear understanding what exactly to do when methadone overdose occurs…… (Male, 44 years old, associated college graduate, doctor from a hospital-affiliated MMT clinic).

> A lot of times we don't know how to answer the questions clients ask, so the clients may feel that our doctors are not professional and lose their confidence in you right away. When that happens, they don't comply with your instructions any more. (Female, 30 years old, college graduate, doctor from a hospital-affiliated MMT clinic).

Specifically, the service providers stated that they were in urgent need of ongoing training on psychological counselling, behaviour intervention, methadone pharmaceutics and dosage adjustment, emergency treatment, side-effect management, and medical record writing. Several participants suggested that it would be very helpful if they could visit other methadone clinics to share experiences and lessons with other service providers.

Difficulties in pursuit of career

The service providers expressed the concern that they would gradually lose their medical expertise after working in MMT clinic for a long period of time, because the only medicine they were prescribing was methadone. They perceived the lack of practicing general medicine as a huge disadvantage when they try to be promoted or find other jobs, since they lack experience in treating "real patients" and forget their medical knowledge and skills. Quite a few respondents perceived that work in MMT clinics is dreary and unpromising, and wish to return to the departments where they previously worked.

> There is no future in doing this. We only prescribe one medication day after day, and forget how to be a doctor anymore. It is so boring to write the same prescriptions and see the same clients. Our director once tried to persuade me to find some other job. He said it was a waste of time to work here (Male, 35 years old, college graduate, doctor from a hospital-affiliated MMT clinic).

> It is not worthwhile working here, especially for young college graduates. If they worked for large hospitals, with a mentor's guidance, they could learn very fast. Methadone is too simple, and young people don't want to stay here (Male, 65 years old, associated college graduate, doctor from a voluntary detoxification centre-affiliated MMT clinic).

Lack of institutional support

Because MMT clinics are not as profitable as other departments in the hospital, the hospital leaders often paid little attention to their work, ignoring the service providers' efforts and contributions. Sometimes they even consider MMT clinics to be "wasting the hospital's resources". Many respondents complained that they were ill-equipped and did not have enough working supplies and necessities to support their daily practice. The lack of institutional support, to a large extent, had reduced the service providers' working motivation and limited the quality of care received by the clients.

> We are taking cash from the clients ourselves, so we asked the director of the hospital for a currency detector, but it was not approved. He said we didn't need it! We use computers a lot, and he only gave us the oldest and shabbiest monitor. The director said our clinic was not making any profit, so we don't deserve good equipment. I think if the leader gave us more support, we might be able to do a better job. (Male, 27 years old, college graduate, doctor from a hospital-affiliated MMT clinic).

> You see, all the office supplies are old. This document cabinet was not here until a couple of weeks ago. The documents used to be spread out on the table, and we had no where to restore them! It was freezing during the winter, and we didn't even have a water heater, so we had to wash our hands with icy cold water. Other departments are making money, but we are not, so they have water heaters and we don't. It is not fair at all (Female, 36 years old, associated college graduate, nurse from a hospital-affiliated MMT clinic).

Concern for personal safety

Additionally, some physicians expressed concern about personal safety. The relationship between service providers and clients of MMT clinics appeared to be very different from other medical care settings. Almost all of the respondents had been threatened by clients in order to get a desired methadone dosage or to avoid a urine test. Some service providers considered drug users to be "dangerous people" and were worried about client's retaliatory actions if their demands are not completely fulfilled. Other than physical safety, the service providers were also concerned about potential occupational exposure to contagious diseases such as tuberculosis, hepatitis, and HIV/AIDS.

> Early this year a client was making threats in our director's office with a cleaver in his hand. His usual dose was 50 ml, and that day he asked for 90 ml without a good reason, so we refused. Then he made such a scene in director's office, and no matter what we said he just wouldn't stop (Female, 46 years old, senior high graduate, clinic administrator from a hospital-affiliated MMT clinic).

> I feel that our personal security is not guaranteed. The clients stir up trouble every once in a while. A few months ago, there was a HIV-positive client who threatened our service providers with a needle with his own blood on it (Female, 26 years old, college graduate, doctor from a CDC-affiliated MMT clinic).

Low income

The service providers in MMT clinics receive a substantially lower salary than those who work in other hospitals/departments, which has understandably reduced service providers' initiative and enthusiasm for their work. Some respondents had tried to appeal for a higher salary or bonus as a reward in appreciation for their hard work.

> Our incomes are so much less compared to other departments. To tell you the truth, our bonus is about 1000 Yuan (147.1 USD) per month, but other doctors in our hospital get 2000–3000 Yuan. I heard that some of them got about 5000 Yuan (Male, 27 years old, college graduate, doctor from a hospital-affiliated MMT clinic).

> You can't imagine how badly we are paid. As a contract worker, I only get 700 Yuan (102.9 USD) per month. A cleaner could make more than that. And we need to work harder than anyone else. We heard that we are supposed to get a 500-Yuan special allowance from the government, but the director just kept the money for god knows what. We haven't seen any of that money, not even once (Female, 35 years old, associated college graduate, nurse from a voluntary detoxification centre-affiliated MMT clinic).

Heavy workload

The MMT clinics are open every day, including weekends and holidays, to meet the drug users' needs. These service providers therefore receive much less leisure time and bear a heavy workload. In a typical MMT clinic, two or three physicians are writing more than 100 prescriptions per day. In addition to pharmaceutical dispensing, the service providers are responsible for keeping medical records, administrating urine tests, providing psychological counselling and health education to clients and their families, tracking clients lost to follow-up, and preparing documents and reports for public health and public security officers. In addition to their regular duties, service providers are obligated to take care of unexpected events, such as a client's arrest by police. All these contribute to greater stress and burnout among the service providers.

> We work on the weekend because the clients are coming every day. Basically there are no days off. 365 days, including Chinese New Year, we are all working. You have to agree it is a hard work to do (Female, 52 years old, associated college graduate, clinic administrator from a CDC-affiliated MMT clinic).

> The police and the clients may call you at night. The clients call your cell phone whenever they are in trouble, sometimes in the middle of the night (Female, 43 years old, college graduate, clinic administrator from a CDC-affiliated MMT clinic).

Disdain by society

Last but not least, the service providers were frustrated by disdain from colleagues and society in general. The leaders and colleagues in other departments thought that they were not working very hard, only "dispensing the medicine and surfing the internet". Moreover, the majority of the population, including some family members and service providers in other health care settings, do not have a clear understanding of how methadone works and regard methadone as a harmful and addictive drug. They blame methadone for some psychiatric and medical disorders of drug users dependent upon methadone treatment.

> Last month one of our client's liver function was abnormal, so I asked him to get checked up at a local hospital. Guess what, the doctor there told him never to take methadone again! He said methadone is also drug, which is toxic (Male, 63 years old, college graduate, doctor from a CDC-affiliated MMT clinic).

> We had a client who seemed to be hyperactive when he had used methadone for a month or so. He just could not stop moving and trembling. He told us that he had used some kind of hallucinogens, but his mother blamed this on us, saying that methadone was the cause. The local hospital also diagnosed him as having a "methadone overdose" (Female, 45 years old, associated college graduate, clinic administrator from a voluntary detoxification centre-affiliated MMT clinic).

Discussion

China has made significant progress in implementing and enhancing MMT programs in the past five years. Tens of thousands of drug users and their families are benefiting from the positive outcomes associated with participation in MMT such as decreased drug use, criminality, and increased family relationships and employment (Sullivan & Wu, 2007, Pang et al, 2007). The communities have also profited from lower demand for local drug markets, reduced crime rates and improved local public security (Pang et al, 2007). However, there are changes in clinic practices that could be made to increase the success of the program. Findings suggest the need to provide more support for the service providers, particularly in terms of ongoing training about MMT delivery and of salary support for providers. The relative effectiveness of the pharmacotherapy largely depends on the attitudes and services of those who deliver the treatment. Maintaining a stable workforce is an essential component for scaling up the MMT program and improving the quality of care for clients.

Good institutional support promotes a positive psychological state for service providers and prevents burnout and attrition in the workforce (Li et al, 2007b; Ross, Greenfield, & Bennett, 1999; Shoptaw et al, 2000). In this study, the lack of institutional support was perceived by service providers as a barrier to carrying out their daily work and providing comprehensive services to clients. Inadequate financial support reduced service providers' faith in the MMT program's future, and their low salaries discouraged them from making long-term commitment to the MMT. China is not the only country faced by such problems. Kleber (2008) reported that in the U.S., decreased funding for non-profit centres left many MMT programs inadequately staffed. In a qualitative study in Russia, service providers also identified lack of resources as a major challenge in service provision for drug using population (Bobrova, 2008). It is incumbent on the government to ensure that resources are adequately and effectively allocated. Appropriate salaries for health care providers and supplies of working necessities can help to retain a trained workforce.

Because of the rapid implementation of the MMT program in China and the apparent lack of sufficient resources, the professional training for many MMT service providers was very limited. Any additional ongoing in-service training has been lacking. Training on behaviour interventions, psychological counselling, and health education was even more rare. Without the basic principal of harm reduction and necessary knowledge and skills, service providers inadequately prepared to affect clients' motivation to change, personalized risk management, and mental health problems. Well-trained staff are key for effective methadone treatment (Ward, Hall, & Mattick, 1999). This study suggested that more appropriate training, especially in the area of behavioural intervention and psychological counselling, is urgently needed by MMT service providers. A well-trained provider not only works more effectively in regards to prescribing appropriate treatment dosages and monitoring, but also interacts more positively with clients, which will, in turn, enhance relationships between the service providers and clients. In addition, training is desperately needed to help the staff feel competent to manage the security-related adverse events that occur in MMT clinics.

An alternate and perhaps concurrent approach to address these concerns is to professionalize service providers by creating an addiction medicine society that sets standards and guidelines

for addiction treatment and promotes the appropriate role of service providers in the care of patients with addictions. In the U.S., the "American Society of Addiction Medicine" is an admirable model that provides guidelines for the implementation of addiction medicine and its providers (www.asam.org). Service providers with increased knowledge and skills and with access to a medical society dedicated to treatment of addiction would likely feel more comfortable treating drug users. As well, it may be that when clinic administrators hire staff members who have previously worked in detoxification centres, the expertise in the MMT increases, which can aid all of the providers at the clinic in feeling safer and supported. Such expertise in mental health and addiction would also likely improve the clinics' functions and working environments.

Drug use is in sharp conflict with the cultural and moral values of traditional Chinese society. The stigma associated with drug use and poor perceptions of MMT is prevalent in society (Deng et al, 2007). Societal misunderstanding of MMT plays an important role in the negative feelings reported by the service providers. More education should be carried out to disseminate knowledge about the benefits of MMT to the general population and for policy-makers. Stigma reduction in society is essential to promote high-quality care for MMT clients by service providers.

The heavy work load and long working hour are sources of stress and burnout among service providers. There are strategies that could simplify working procedures and reduce service providers' burden. For example, standardized electronic methadone prescriptions could be created to free the service providers from writing daily prescriptions. Service providers need assistance in carrying out other comprehensive services such as skills training and psychological counselling. Involvement of other institutions and incorporating their expertise into the MMT program would optimize resource allocation and achieve more favourable outcomes. For example, the labour department, community, and NGOs could provide skills training and employment for the MMT clients, and universities and mental health clinics could collaborate with MMT service providers to conduct group activities and individual counselling. These steps would reduce MMT service providers' burdens and allow them to work more effectively.

There are some limitations in the study that should be noted. The data were collected from a region with moderate drug-use problems. Service providers and MMT programs in this area might differ from other parts of China. The sample was not representative of all service providers in the country. However, the fact that the average number of clients in the study clinics was comparable to the number in other clinics in the country may support the generalizability of the results. Even with these limitations, our findings identify essential elements for improving the effectiveness of MMT that should be carefully considered by policy-makers.

The study highlights major challenges faced by service providers working in MMT clinics in China. In conclusion, there is an urgent need to attract, train, and retain service providers to meet the challenges and needs of the rapidly expanding MMT program in China. It is essential that policy-makers and health administrators recognize and respond to the needs of the service provider workforce. The government should ensure that resources are effectively allocated in order to guarantee proper MMT clinic operation and that service providers are adequately compensated. Appropriate ongoing professional training should be given to service providers working in MMT clinics. We believed that as the MMT program expands and improves, more and more people and the society as a whole will be benefited.

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Table 1

Demographic characteristics of the 28 service providers who participated in qualitative in-depth interviews

	Number	%
Province		
Zhejiang	17	60.7%
Jiangxi	11	39.3%
Age		
20–29 years	4	14.3%
30–39 years	7	25.0%
40–49 years	8	28.6%
50 and above	9	32.1%
Gender		
Male	16	57.1%
Female	12	42.9%
Education level		
Senior high	6	20.0%
Associate college	8	43.3%
College and above	14	36.7%
Profession		
Clinic administrator	11	39.3%
Doctor	12	42.9%
Nurse	5	17.9%
Length of service (months)		
12–18 months	11	39.3%
19–24 months	11	39.3%
25 months or more	6	21.4%