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The Benefits of Methadone Maintenance Therapy: A Case Study of Providing Access to Methadone in Rural and Northern British Columbia

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People with a chemical dependency often have limited access to treatment in rural British Columbia (BC), which contributes to the migration opiate-addicted persons to larger centres away from their support network in smaller communities. Support of family and friends can be crucial to opiate-addicted individuals with a concurrent mental health issue. Methadone maintenance therapy (MMT) is a useful treatment option for those addicted to opiates, and may be especially beneficial to those with a mental health issue; however, MMT in particular is often not available in smaller and rural communities. The present paper discusses the benefits of MMT and the lack of access to this treatment in rural BC communities. Further, a novel approach that was proposed in one particular rural BC community is outlined: Using the existing nursing infrastructure to facilitate access to MMT.

Keywords: Methadone; Nursing; Rural.

Benefits of and Access to Methadone in Rural British Columbia

The British Columbia Methadone Maintenance Therapy (MMT) Context

Persons in British Columbia (BC) suffering from both mental health and substance abuse issues may have difficulty accessing services for either issue. Not only may the two issues act synergistically, but service providers whose focus is on one issue or the other are often reluctant to treat a person with concurrent difficulties. This refusal is especially true in smaller centres, which likely have only one provider for each kind of service (M. Clark, personal communication, August 23, 2001). Thus, in a small town there may be a mental health centre and perhaps a detoxification or substance abuse treatment centre, but it is rarely the case that either centre is willing to deal with persons who are also afflicted by the second confounding disease. One strategy to help people in this circumstance is to deal with the substance abuse issue first, as, in some situations, this problem may be slightly more tractable. A venerable method to stabilize people with opiate addictions is through the use of methadone maintenance therapy (MMT). This option is, of course, dependent on there being an MMT program in the client's hometown.

Methadone Maintenance Therapy (MMT) has proven to be a useful tool in the struggle of opiate-addicted persons to control their illicit drug use and to reduce the consequent negative sequelae of that drug use (Swan, 1994; Ward, Mattrick, & Hall, 1992). Methadone was first proposed as a treatment for opiate addiction in 1964 (Dole & Nyswander, 1965). As noted by Turner (2001, p. 5), "prior to 1972, all Canadian physicians were permitted to prescribe methadone. In 1972, it became mandatory for physicians to obtain authorization from the federal government to

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prescribe methadone." For two decades, this rather awkward system constituted the only access to MMT. "In 1995/96, subsequent to complaints from physicians and patients that the program was overly restrictive and impeded access to treatment, the federal government transferred authority to the provinces to delineate the conditions under which methadone would be prescribed" (Turner, 2001, p. 5). In British Columbia, licensing of physicians to prescribe MMT is only given after the physician attends a one-day training session in Vancouver, followed by a further one-day practicum with a previously-trained physician. The College of Physicians and Surgeons of British Columbia (COPS) monitors MMT prescribers on a random basis.

In 2000, there were 513 prescribing MMT physicians serving approximately 6000 MMT clients in the province of BC; the number of MMT clients was expanding by 150 clients per month (Turner, 2001). BC has an area of 934,000 sq. km, which is almost the size of France and Germany combined. Most of BC's population lives within 100 km of the Canada-U.S. border. In line with other aspects of provincial demographics, most MMT physicians live and practice in the lower mainland and on southern Vancouver Island, leaving vast areas in the north and interior with little or no access to an MMT physician. Only physicians with the special license and training from COPS are permitted to prescribe MMT. Many Family Practice physicians appear reluctant to undertake this training, and also appear reluctant to attract MMT clients to their practices. MMT is often thought of as an urban phenomenon and, indeed, the largest numbers of both clients and prescribers are found in the larger centres. However, it is not clear if the high urban concentration of MMT clients is merely an artifact of urban centres having the highest concentration of prescribing physicians. Regardless, the presence of 6000 MMT clients indicates that there is not only a need for MMT but, also a benefit to the clients.

The Benefits of MMT

As noted by Joseph, Stancliff, and Langrod (2000, p. 347), "methadone, a long acting agonist with a half life of about 24 to 39 hours, was synthesized for analgesia prior to World War II in Germany." It was then evaluated as a taper-down treatment for opiate addiction, but was found to have a very high relapse rate. Methadone maintenance began as a research project in 1964 at The Rockefeller University under the joint direction of Dr. Vincent P. Dole and Dr. Marie E. Nyswander (Joseph et al., 2000). These physicians found that patients on MMT were no longer sedated or preoccupied with drugs (Joseph et al., 2000). "[T]o test whether methadone would prevent relapse to heroin addiction or respiratory depression if heroin was tried again, rigorous double blind studies were conducted … An effective blockade effect was noted at 80-120 mg/d or over, against the narcotic effects of heroin, morphine dilaudid, and methadone itself" (Joseph et al., 2000, p. 348).

Studies of the long-term effectiveness of MMT demonstrate clear benefits, both in the reduction of heroin use and in the amount of criminal activity associated with opiate addiction. However, these studies also show that MMT is not a silver bullet, particularly regarding patients becoming completely free of any opiate dependence (Bell, 2000; Ward et al., 1992).

Today, the goal of MMT therapy is to maintain the opiate-addicted client in a stable manner that minimizes the disruptive effects of that addiction. This may include complete cessation of all opiate use, but cessation is not necessarily the goal for all clients (Brands, Blake, & Marsh, 2002; Brookes, 1997; Leavitt, Shinderman, Maxwell, Eap, & Paris, 2000; Nadelman & McNeely, 1996; Newman, 1977). MMT is economically beneficial (Barnett, 1999; Swan, 1994), and, when the overall societal costs of opiate addiction are considered, there is a clear benefit (COPS, 2001; Weatherburn & Lind, 2001).

An additional benefit of MMT is that it reduces exposure of the opiate-addicted client to parenterally-transmitted diseases, especially Hepatitis C and HIV (Deren, Goldstein, Des Jarlais, Richman, Kang, & Flom, 2001; Gaughwin, Solomon, & Ali, 1998). MMT also provides an entry point to the health care system, and may have non-obvious spin-off benefits, such as an opportunity to network with others with similar issues. Such networking may be especially important for those with a concurrent mental health issue (Abbott, Moore, Delaney, & Weller, 1999; Bell, 2000; Ducharme & Luckey, 2000; Gogineni, Stein, & Friedmann, 2001). Naturally, not everyone is in support of MMT, but often the objectors take a moral stance, rather than a practical one (Brookes, 1997; Scherer, 1988; Wheat, 1997). Yet, numerous studies of retention of MMT clients demonstrate that clients who are stabilized in an MMT program have better outcomes than those who drop out of treatment, as dropouts may return to abusing illicitly-obtained opiates and may have more serious health outcomes (Bammer, Battison, Ward, & Wilson, 2000; Caplehorn, Lumley, & Irwig, 1998; Caplehorn, Lumley, Irwig, & Saunders, 1998; Chautuape, Silverman, & Stitzer, 1998; Gaughwin et al., 1998; Magura, Nwakeze, & Demsky, 1998; Magura, Nwakeze, Kang, & Demsky, 1999).

Improving Access to Methadone in Rural Areas

An underlying assumption of this paper is that it may be beneficial for MMT clients, especially those with a concurrent mental health issue, to continue residing in smaller towns and villages to which they may

have had connections prior to becoming addicted. Likely, in these smaller communities, MMT clients will have friends, family, and acquaintances who are not involved in the illicit-drug subculture and who can offer support for the client's mental health issues. (Hedlund & Jeffery, 1993) In contrast, in a larger centre, most of these people's relationships will likely be with those involved in the drug subculture.

Access to MMT is, of course, in part a function of the availability of an MMT program within a reasonable distance of the potential client's residence (Brands, Blake, & Marsh, 2002; Turner, 2001). While a considerable literature on the merits and attributes of MMT exists, few reports have investigated access to MMT in rural settings. One of the few studies conducted was by Dr. David Richards, a general practitioner in rural Australia. Richards (1998) notes that MMT patients seeing a GP in a rural setting may have a greater opportunity to interact with the physician and, hence, resolve some of the other issues that may confound their addiction problem, including mental health concerns.

The literature is clear in demonstrating that MMT is one of the better options for treating opiate addiction (Swan, 1994). It is less clear how access to this treatment is managed if the client lives in a rural area in BC. The literature also indicates that potential clients may have considerably more difficulty accessing MMT in northern BC (Mark, 1999; Turner, 2001). Clearly, society does not have a responsibility to provide all services everywhere in the province. For example, no one would argue that there should be a MRI machine available at every rural crossroad. However, since there is a minimal capital or infrastructure cost associated with MMT provision, it does seem reasonable that people living in every centre that regularly has physicians or nurses practicing should be able to have access to MMT. Naturally, an MMT client who needs daily access to his or her methadone cannot be expected to move to a community with no access to MMT. Equally, it may not be reasonable to expect a physician to incur the loss of time and money involved in acquiring the MMT training in Vancouver if there are no apparent MMT clients in his or her community. Since access to an MMT program may be of critical importance for these clients, and there is a clear lack of MMT prescribers in smaller centres, this paper proposes a novel but practical approach to fulfilling this need.

A Case Study of One Community's Proposed Solution

In 2001, the author, while employed as a rural street nurse by Cariboo Health (the local public health organization) in a small community in central BC, was faced with a situation in which the local MMT physician announced plans to leave the community and the local 11 MMT clients. This would have left these clients with the closest MMT prescriber over 130 km away; furthermore, that prescribing physician was reluctant to take on any new clients. Several of these clients had concurrent mental health issues, yet all were relatively stable psychologically and with regard to the substance abuse. The concern was that, without access to MMT, these clients might resort to unhealthy alternatives. Efforts to persuade one of the other 22 physicians in the small city of Williams Lake to undergo the training and take on the MMT clients failed, even though Cariboo Health offered to underwrite the costs associated with the training. There was a clear need to make some provision for MMT to these clients. One of these clients exclaimed, "if I can't get my [methadone] here, I'm gonna go back to street dope or go back to Carnegie" (Carnegie being the downtown east side of Vancouver) (Anonymous, personal communication, November 16, 2001). The downtown east side of Vancouver is notorious for the extremely high percentage of substance-dependent residents and the ease with which abusable substances are obtained.

A variety of options were discussed by the street nurse, his supervisor, and other concerned health professionals. A retired internist agreed that managing established MMT clients could easily be undertaken by a trained nurse, and suggested that this be pursued. A proposal was put forward to the management of Cariboo Health and the local Medical Officer of Health that the most viable option in the immediate situation was to utilize the street nurse position as a liaison between MMT clients and a physician in another community. Accordingly, the author developed this idea further, drafted policies, undertook the MMT training at COPS, secured the agreement of the appropriate authorities, and prepared to manage the MMT clients. The plan was that the nurse would monitor and assess the established clients, gather urine samples, and report and make recommendations to a supervising MMT physician in a distant community. The nurse would not initiate MMT with new clients nor would he attempt to monitor unstable or high-risk clients. The nurse would make recommendations to the physician but would not assume any aspect of the prescribing function; this domain was reserved for physicians, especially in the case of methadone.

Discussions with the Registered Nurses Association of British Columbia (RNABC) indicated that RNABC did not view that the nurse acting as the eyes and ears of a physically-distant MMT physician was fundamentally different than a nurse in an intensive care unit telephoning a physician at 3:00 A.M. to request a change in a medication order (personal communication, 2001). The ultimate decision-making power vests in the physician in both cases.

Equally, when the initiative was proposed to COPS, that organization indicated that they also realized that there was a concern with access to MMT, as demonstrated by their numerous advertisements for physicians to participate in the MMT program. COPS indicated that they had no fundamental concerns with the initiative, provided that there was a policy in place (personal communication, February, 2002). Staff with the provincial Ministry of Health indicated that the ministry was generally supportive (personal communication, November 2001-March 2002). In January 2002, a physician in a neighboring community was located who agreed to participate in the initiative, and, in February 2002, the author attended the MMT training at COPS in Vancouver. Concurrently, policies were drafted and amended (see Appendix A and B).

Epilogue

In March 2002, the BC Liberal government's reorganization of the Ministry of Health and the consolidation of the 22 health regions into 5 mega-regions took effect. Control of health matters in the Cariboo moved from Williams Lake to Kelowna, 500 kilometers away; Cariboo Health became a small part of Interior Health. Despite the author's repeated requests for information on the status of the initiative from senior managers in Kelowna, no further communication on this initiative was received.

Notwithstanding that Interior Health has other priorities, the MMT nurse-liaison concept remains a viable model for MMT delivery in other jurisdictions. Indeed, as the demographics of health care providers continue to change (i.e., as the current generation ages and retires), it seems likely that there will be a necessity to modify roles to meet new and ongoing challenges. Unfortunately, addiction to illicit opiates is a fact of life even in our smallest communities, and it behooves society to undertake any measures that may help minimize the consequences of these addictions not only for the addict, but also for society at large. When a mental health issue confounds an addiction, the need for the client to remain in a supportive environment is even more important. The use of nurses in a liaison role ensures that MMT clients can continue to reside in their home communities even in the absence of a local MMT physician.

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Appendix A
Policy for Methadone Supervision by Nurses (DRAFT)

RATIONALE:

Whereas there is a lack of methadone prescribers in some areas served by _____ Health Region, this policy has been created to help facilitate the continuation of methadone maintenance therapy (MMT) delivery. Frequent travel to an MMT physician is often not practicable and interim assessment by a nurse may be a solution.

POLICY:

_____ Health Region may choose to address the issue of a lack of MMT prescribers in rural and remote locations by negotiating an agreement for the supervision of methadone maintenance therapy (MMT) by a(n) _____ Health Region nurse.

PROCEDURES:

After consultation with supervisors, nurses working with MMT clients may seek to negotiate on behalf of _____ Health Region with the nearest methadone prescribing physician in order to facilitate the continuation of MMT in clients living in rural areas.

Any nurse who undertakes supervision of MMT clients must have: A familiarity with addictions issues; knowledge of alcohol and drug counseling services available in their area; knowledge of drug and alcohol treatment centres and detoxification centres in their area; an ability to provide basic counseling to MMT clients; and the ability to assess MMT clients in the client's own environment.

In addition to the previous qualifications, the nurse must have attended the College of Physicians and Surgeons of British Columbia (COPS) workshop on Addiction Medicine and Methadone Maintenance.

Agreements negotiated between _____ Health Region and the MMT physician must satisfy both parties, but must include guidelines for client assessment and reporting procedures. Clients must be assessed by the nurse a minimum of once a month. The assessment may include urine testing. The nurse must report to the MMT physician via a secure means (in person, by telephone, by fax, or by secure e-mail) at lease once per month. In the case of one-way communication (e.g., fax or e-mail), the physician must respond with feedback to the nurse in a timely manner. These are minimum guidelines only, and actual guidelines negotiated with an MMT physician may involve more frequent interactions or may be individualized to meet a particular client's need.

Clients appropriate for nursing management of MMT will have been stabilized before being managed by the nurse. New or unstable clients are not appropriate for nursing management alone.

In no case shall the client go for longer than six months without actually being seen by the MMT physician in person.

The nurse must assess the client's interest or readiness to effect a change in lifestyle or therapy. If the client expresses interest, the nurse must make the appropriate referrals to detoxification, treatment, etc.

The nurse will document each client visit on the MMT Nursing Contact sheet (see Appendix B).

(*Appendixes continue*)

Appendix B
MMT Nursing Contact Sheet

DATE _____

NAME _____ DOB _____

ADDRESS _____

_____

PHONE _____

MMT PHYSICIAN _____

MMT DOSAGE _____

CARRIES? ____ X A WEEK

OTHER MEDS. _____

OTHERS MEDICAL CONDITIONS _____

_____

URINE TEST _____

RESULT FROM LAST TEST _____

PTS. RESPONSE TO MMT

STABLE _____

PT. WISHES TO: INCRAESE _____ DECREASE _____

TREATMENT DISCUSSED _____

APPEARENCE _____

COHERENCE _____

OTHER ISSUES

FINANCIAL _____

LIFESTYLE _____

COMMENTS _____

_____

_____

_____

_____

_____

NURSE'S SIGNATURE _____

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