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Ingredients of Prescription Misuse and Factors of Opioid Management

Canada’s high prevalence of prescription drug misuse (PDM) has been reported for at least a decade. Be it benzodiazepines, hypnotics, stimulants or opioids, Canada has for a while reported one of the highest prescription abuse rates in the world. The first article by McInnis et al from the Canadian Centre on Substance Abuse is a survey of health professionals in Alberta as to their perceptions of their ability to address this major public health issue. The conclusion is that strategies are being developed but that we still have a long way to go.

A major component of PDM has been the abuse of opioids. In the 1990s, I still recall the frequent admonitions at industry sponsored presentations to overcome our “opiophobia” in the management of pain. We did indeed!

The next 3 papers discuss new options available to clinicians in the management of opioid dependence. A literature search by Main and Kelly reviews 17 studies of outpatient use of buprenorphine/naloxone. Of note, prescription drug users experience more successful outcome than heroin users. The use of the medication in primary care settings is advocated.

So what about the treatment resistant heroin users? Wilson et al’s paper derives from the SALOME comparison of diacetylmorphine to injectable hydromorphone for opioid use disorders refractory to methadone maintenance. The management of a SALOME subject for an acute surgical emergency with the help of a conversion table is reported.

What about when a hospitalised patient is discharged? Johnson et al details a Take Home Naloxone Program taught when the patient is close to the anticipated date of discharge. While no follow up data are provided, this case report is a good account of the feasibility of this harm reduction service.

The last paper by Doukas et al is a brief survey of treatment agencies in Ontario as to the provision of grief therapy and an attempt to delineate the current practice of this modality.

Rendez-vous à Montréal October 20-22, 2016.

Nady el-Guebaly, MD
Editor-in-Chief, CJA-JCA
Alberta Healthcare Professionals’ Perceptions of Prescription Drug Misuse

Opal A. McInnis, PhD, Paula Robeson, RN, MScN, Sheena A. Gereghty, PhD, Amy J. Porath-Waller, PhD

ABSTRACT

Background: The harms associated with the use of psychoactive prescription drugs are a serious public health problem. Healthcare professionals play an important part in addressing this problem; however, there is limited research examining their role in identifying and preventing prescription drug misuse (PDM). Methods: The perceptions of 1,063 Canadian healthcare professionals (HCPs) (physicians, registered nurses and nurse practitioners, pharmacists, and dentists) regarding PDM were collected using an anonymous online survey. Results: Findings revealed that only 27.7% of HCPs felt adequately supported in addressing PDM. HCPs did not feel overly effective in preventing or addressing PDM; they indicated several barriers such as inadequate knowledge and training, as well as those related to communication issues with fellow HCPs. Interpretation: This study supports the need to increase the capacity of HCPs to identify and address PDM among patients. This could be accomplished through clearer protocols and training on the clinical signs of PDM, as well as strategies aimed at facilitating better communication among healthcare providers. By limiting some of the existing barriers, HCPs will be better prepared to address this public health crisis.

INTRODUCTION

The harms associated with psychoactive prescription drugs represent a serious public health problem. The misuse of prescription drugs such as opioids, sedatives-hypnotics and stimulants can confer risk for addiction, withdrawal, injury and mortality. In 2009, drug overdose deaths exceeded those due to motor vehicle accidents in the United States, and the majority of these deaths involved prescription drugs. Although national Canadian data are lacking, within Ontario nearly one in every eight deaths were opioid-related among individuals aged 25-34 in 2010. Moreover, Canada has one of the highest levels of prescription opioid consumption globally, with approximately 30,000 Standardized Defined Daily Doses taken in 2010-2012. As such, identifying and addressing prescription drug misuse (PDM) in healthcare settings is essential to reducing prescription drug-related harms.

Healthcare professionals (HCPs) play a critical role in dealing with this problem, yet few studies have examined their perceptions and experiences in identifying and addressing PDM. Of those that have, there is some indication that HCPs meet barriers when attempting to identify and respond to PDM among their patients. By example, physicians and nurse practitioners identified key barriers that included a lack of clarity regarding what constitutes PDM, and a lack of communication between themselves and their patients, patient’s families as well as between other HCPs.
Similarly, there have been reports that family physicians and pharmacists face issues related to properly identifying PDM, managing inappropriate requests for prescription drugs, substantiating the legitimacy of requests, and dealing with threatening responses from patients\(^8\). In an Ontario survey, pharmacists reported challenges in communicating with physicians, such as difficulty reaching physicians by telephone, or physicians not returning their calls\(^8\).

HCPs’ reporting an inability to properly address this issue is not surprising given their lack of education related to PDM. A survey of pharmacists in the United States indicated that participants had two hours or less of addiction and substance abuse education\(^9\). Additionally, the Coalition on Prescription Drug Misuse identified Canadian physicians as lacking training on PDM assessment and pain-management treatment options\(^10\). Fortunately, recent studies provide evidence that participation in continuing education on controlled prescription drugs can enhance HCPs’ willingness to intervene with patients who are suspected of PDM\(^11\). Thus, it is important to determine the level of support available to HCPs as the provision of adequate training is one practical avenue to reduce the harms associated with prescription drugs. Indeed this was a recommendation of the First Do No Harm, a 10-year pan-Canadian multi-partner strategy to reduce the harms associated with prescription drugs\(^8\).

Of the limited research conducted on HCPs’ perceptions of PDM, most have examined physicians’ perceptions of prescription opioid misuse only\(^12-17\). The current study extends this literature by examining perceptions of the misuse of prescription opioids, sedative-hypnotics, and stimulants and includes additional HCPs such as dentists, pharmacists and nurses who also play a role in this issue. More specifically, this work assessed HCPs’ perceived efficacy, support, and barriers experienced in identifying and addressing PDM in patients and explored whether differences in perceptions existed across HCP groups.

**METHODS**

**SETTING AND DESIGN**

We collected data from November 13, 2013, to February 21, 2014. Healthcare professionals’ responses were gathered through an anonymous online survey. Following completion of the survey all participants were provided a written debriefing. We compensated participants with a $10 dollar donation to the Red Cross Alberta Flood Relief Effort. This study was approved by the Health Research Ethics Board of Alberta - Community Health Committee.

**PARTICIPANTS**

Eligibility criteria for participants included registered members of one of four selected HCP colleges or associations in Alberta, Canada: College of Physicians and Surgeons of Alberta (CPSA), Alberta Dental Association and College (ADAC), Alberta College of Pharmacists (ACP), and the College and Association of Registered Nurses of Alberta (CARNA). With assistance from these organizations, we used a number of recruitment strategies, including emailed invitations, advertisements in newsletters and on websites, and mailed postcards. All participants provided informed consent.

A total of 1,063 HCPs participated in the study. They comprised physicians (\(n = 99, \ 9.3\%\)), dentists (\(n = 112, 10.5\%\)), pharmacists (\(n = 202, 19.0\%\)), and nurses (\(n = 650, 61.1\%\)). The majority of our sample was female (\(n = 789, 77.1\%\)) and the distribution of genders across the groups differed \(\chi^2 (3) = 302.93, p<0.01\). While gender was relatively evenly distributed among physicians (female, \(n = 46\) and male, \(n = 52\)), more men were represented in the dentist group (women, \(n = 26\) and men, \(n = 79\)), and more women identified as pharmacists (women, \(n = 139\) and men, \(n = 58\)) and nurses (women, \(n = 578\) and men, \(n = 46\)). Participants’ mean age was 46.40 years (SD = 12.50, range = 18-125). The groups also differed with respect to age, \(F (3, 1037) = 16.41, p<0.01\), such that pharmacists were younger than the other three groups (all \(p’s <0.01\)). The average length of practice was 20.45 years (SD = 13.00, ranged from 1-55), and this also varied by group, \(F (3, 1037) = 7.89, p<0.01\). Specifically, pharmacists reported less years of practice than physicians (\(p<0.05\), dentists (\(p<0.05\)), and nurses (\(p<0.01\)). Due to these differences, gender, age, and years of practice, were treated as covariates in any subsequent analyses in which HCP groups were compared. As well, the sample sizes differed considerably across the four HCP groups. Thus, for any subsequent analyses, the data were weighted according to the initial target population for each group (i.e., the total number of professionals registered with each association) which were as follows: nurses: 16,005; physicians: 10,640; pharmacists: 3,882; dentists: 2,153.

**STUDY QUESTIONNAIRE**

The survey instrument was developed based on a review of the literature and input from a panel with research and clinical expertise related to PDM and addiction. To promote consistency in PDM comprehension, we provided the following description at the beginning of the questionnaire:

The use of a medication for a medical purpose other than as directed or indicated, whether intentionally or unintentionally and whether harm results or not. Examples of unintentionally misusing prescription medication could include using a prescription incorrectly either because of misunderstanding instructions or a faulty memory (e.g., taking the wrong dosage). Examples of intentionally misusing
prescription medication could include using the medication incorrectly for recreational use (e.g., to get high) or for the medication’s therapeutic benefits (e.g., to help relieve pain, to improve concentration, to help sleep, to change one’s mood, etc.).

Participants were presented with a list of potential barriers to addressing or identifying PDM among patients and asked to rate these factors from a scale of 1 (not at all) to 7 (definitely). This component of the survey also included HCP group-specific barriers. For example, physicians were asked if not being the initial diagnosing physician posed a barrier. Participants were also asked whether they had adequate support to address PDM, and those who indicated “yes” were asked how effective the support was from 1 (not at all effective) to 7 (extremely effective). Finally, participants were asked how effective they were in preventing and addressing PDM on a scale of 1 (not at all effective) to 7 (extremely effective).

STATISTICAL ANALYSIS

We used IBM SPSS Statistics 22 to perform statistical analyses. Statistical significance was determined at $p < 0.05$ (two-tailed). Analysis assessing HCP group differences on barriers was conducted using multivariate analysis of variance (MANOVA) with follow-up univariate ANOVAs. Univariate ANOVAs were used to assess group differences on perceptions of effectiveness of support and effectiveness in addressing and preventing PDM. All pairwise comparisons were conducted using a Bonferroni correction.

RESULTS

BARRIERS TO IDENTIFYING PDM

HCPs perceived substantial barriers to identifying PDM among patients. Of the 14-items rated, factors such as lack of patient honesty ($M = 6.38, SD = 1.04$), insufficient time with patients ($M = 5.95, SD = 1.24$), and lack of communication with the patient ($M = 5.94, SD = 1.49$) were rated among the highest barriers. Even factors that were endorsed the least were still rated at the higher end of the scale, such as availability of walk-in clinics ($M = 4.98, SD = 1.73$), use of emergency room ($M = 4.84, SD = 1.68$), and symptoms of PDM being obscure or confusing ($M = 4.70, SD = 1.70$). Importantly, many HCPs also reported a reluctance to inquire about PDM with patients ($M = 5.41, SD = 1.76$) and they indicated that practitioners have inadequate knowledge or training ($M = 5.31, SD = 1.62$) (See Table 1).

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>TOTAL</th>
<th>PHYSICIANS</th>
<th>DENTISTS</th>
<th>PHARMACISTS</th>
<th>NURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of patient honesty</td>
<td>6.38 ($±1.04$)</td>
<td>6.28 ($±1.22$)</td>
<td>6.52 ($±0.92$)</td>
<td>6.44 ($±0.92$)</td>
<td>6.40 ($±0.96$)</td>
</tr>
<tr>
<td>Insufficient time with patients</td>
<td>5.95 ($±1.24$)</td>
<td>5.75 ($±1.18$)</td>
<td>5.11 ($±1.63$)</td>
<td>5.75 ($±1.29$)</td>
<td>6.24 ($±1.12$)</td>
</tr>
<tr>
<td>Lack of communication with patient</td>
<td>5.94 ($±1.49$)</td>
<td>5.63 ($±1.78$)</td>
<td>5.77 ($±1.41$)</td>
<td>5.67 ($±1.48$)</td>
<td>6.23 ($±1.21$)</td>
</tr>
<tr>
<td>Lack of access to chronic pain or addiction specialists</td>
<td>5.82 ($±1.49$)</td>
<td>5.57 ($±1.81$)</td>
<td>5.45 ($±1.34$)</td>
<td>5.69 ($±1.30$)</td>
<td>6.07 ($±1.25$)</td>
</tr>
<tr>
<td>Lack of communication with patient’s other healthcare professionals</td>
<td>5.81 ($±1.33$)</td>
<td>5.55 ($±1.46$)</td>
<td>5.66 ($±1.21$)</td>
<td>5.88 ($±1.15$)</td>
<td>5.98 ($±1.27$)</td>
</tr>
<tr>
<td>Lack of access to chronic pain or addiction specialists</td>
<td>5.82 ($±1.49$)</td>
<td>5.57 ($±1.81$)</td>
<td>5.45 ($±1.34$)</td>
<td>5.69 ($±1.30$)</td>
<td>6.07 ($±1.25$)</td>
</tr>
<tr>
<td>Reluctance to inquire about PDM with patients</td>
<td>5.41 ($±1.76$)</td>
<td>4.62 ($±2.08$)</td>
<td>5.38 ($±1.51$)</td>
<td>5.57 ($±1.52$)</td>
<td>5.91 ($±1.37$)</td>
</tr>
<tr>
<td>Uncertainty regarding reporting lines and who to advise if a patient is misusing</td>
<td>5.39 ($±1.66$)</td>
<td>4.82 ($±1.93$)</td>
<td>5.51 ($±1.40$)</td>
<td>5.50 ($±1.56$)</td>
<td>5.72 ($±1.41$)</td>
</tr>
<tr>
<td>Inadequate knowledge or training of practitioners</td>
<td>5.31 ($±1.62$)</td>
<td>4.91 ($±1.81$)</td>
<td>4.86 ($±1.73$)</td>
<td>5.40 ($±1.47$)</td>
<td>5.62 ($±1.43$)</td>
</tr>
<tr>
<td>Lack of communication with the patient’s pharmacist</td>
<td>5.16 (1.77)</td>
<td>4.65 (1.90)</td>
<td>5.11 (1.59)</td>
<td>4.94 (1.87)</td>
<td>5.56 (1.58)</td>
</tr>
</tbody>
</table>
To determine if perceived barriers varied by HCP group, a multivariate ANOVA was conducted controlling for gender, years of practice, and age. Results indicated that perceived barriers varied as a function of HCP group, Pillai’s Trace $F(42, 3315) = 7.97, p<.001$, with follow-up ANOVAs revealing that all but two barriers (lack of patient honesty and lack of access to chronic pain or addiction specialists) differed significantly depending on healthcare group (Table 2). Pair-wise comparisons revealed that a lack of communication with the patient was rated higher among nurses than physicians ($p<.001$), and pharmacists ($p<.01$). Likewise, inadequate knowledge or training of practitioners was rated higher among nurses than physicians ($p<.001$). Group-specific questions were also asked with respect to perceived barriers. Specifically, physicians rated from 1 (not at all) to 7 (definitely) the degree to which not being the initial diagnosing physician acts as a barrier ($M= 5.15, SD = 1.67$). As well, pharmacists, nurses, and dentists were asked about and confirmed that a lack of communication with the patient’s physician acts as a barrier to identifying PDM in patients ($M= 5.72, SD = 1.39$). Upon examining whether this communication barrier differed across the three groups, a univariate ANOVA indicated no effect, $F (2, 900) = 0.86, p = .42$.

**TABLE 2.** **Univariate ANOVA results and pairwise comparisons with a Bonferroni correction of perceived barriers across HCP groups.**

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>F-Values</th>
<th>Pairwise Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of patient honesty</td>
<td>$F (3, 1116) = 1.55, p = .20$</td>
<td>N/A</td>
</tr>
<tr>
<td>Lack of communication with patient</td>
<td>$F (3, 1116) = 8.89, p&lt;.001$</td>
<td>Nurses rated higher than physicians ($p&lt;.001$) and pharmacists ($p&lt;.01$).</td>
</tr>
<tr>
<td>Insufficient time with patients</td>
<td>$F (3, 1116) = 12.46, p&lt;.001$</td>
<td>Dentists rated lower than physicians ($p&lt;.01$), nurses ($p&lt;.001$) and pharmacists ($p&lt;.05$). Nurses rated higher than pharmacists ($p&lt;.01$).</td>
</tr>
<tr>
<td>Lack of communication with patient’s other HCPs</td>
<td>$F (3, 1116) = 3.43, p &lt;.05$</td>
<td>Nurses rated higher than physicians $p&lt;.01$.</td>
</tr>
<tr>
<td>Lack of access to chronic pain or addiction specialists</td>
<td>$F (3, 1116) = 2.16, p =.09$</td>
<td>N/A</td>
</tr>
<tr>
<td>Reluctance to inquire about PDM with patients</td>
<td>$F (3, 1116) = 31.09, p&lt;.001$</td>
<td>Physicians rated lower than dentists ($p&lt;.001$), nurses ($p&lt;.001$) and pharmacists ($p&lt;.001$).</td>
</tr>
<tr>
<td>Uncertainty regarding reporting lines and who to advise if a patient is misusing</td>
<td>$F (3, 1116) = 15.32, p&lt;.001$</td>
<td>Physicians rated lower than dentists ($p&lt;.001$), nurses ($p&lt;.001$), and pharmacists ($p&lt;.01$).</td>
</tr>
<tr>
<td>Lack of communication with patient’s family</td>
<td>$F (3, 1116) = 7.08, p&lt;.001$</td>
<td>Pharmacists rated lower that nurses ($p&lt;.001$), and physicians ($p&lt;.01$).</td>
</tr>
<tr>
<td>Inadequate knowledge or training of practitioners</td>
<td>$F (3, 1116) = 7.88, p&lt;.001$</td>
<td>Physicians rated lower than nurses ($p&lt;.001$) and pharmacists ($p&lt;.05$). Dentists rated lower than nurses ($p&lt;.05$).</td>
</tr>
<tr>
<td>Lack of communication with the patient’s pharmacist</td>
<td>$F (3, 1116) = 11.94, p&lt;.001$</td>
<td>Nurses rated higher than physicians ($p&lt;.001$) and pharmacists ($p&lt;.01$).</td>
</tr>
<tr>
<td>Difficulty accessing provincial prescribing database</td>
<td>$F (3, 1116) = 26.18, p&lt;.001$</td>
<td>Physicians rated lower than dentists ($p&lt;.001$) and nurses ($p&lt;.001$). Nurses rated higher than pharmacists ($p&lt;.001$).</td>
</tr>
<tr>
<td>The symptoms of PDM are obscure or confusing</td>
<td>$F (3, 1116) = 18.26, p&lt;.001$</td>
<td>Physicians rated lower than dentists ($p&lt;.001$), nurses ($p&lt;.001$), and pharmacists ($p&lt;.001$).</td>
</tr>
<tr>
<td>Availability of walk-in clinics</td>
<td>$F (3, 1116) = 7.78, p&lt;.001$</td>
<td>Physicians rated higher than pharmacists ($p&lt;.001$), nurses ($p&lt;.01$), and dentists ($p&lt;.05$).</td>
</tr>
<tr>
<td>Use of emergency rooms</td>
<td>$F (3, 1116) = 7.77, p&lt;.001$</td>
<td>Pharmacists rated lower than nurses ($p&lt;.001$) and physicians ($p&lt;.01$).</td>
</tr>
</tbody>
</table>
PERCEPTIONS OF EFFECTIVENESS IN IDENTIFYING AND ADDRESSING PDM

Only 27.7% of respondents felt they had adequate support for preventing and addressing PDM with their patients. This varied as a function of HCP group, \( \chi^2(3) = 11.62, p < .01 \), such that nurses and pharmacists were less likely to report adequate support as compared to physicians and dentists. Of the participants who reported that support was adequate, most HCPs indicated feeling that their current support was only marginally effective (\( M = 4.15, SD = 1.50 \)), and these perceptions did not differ by group.

Participants felt they were moderately effective in preventing and addressing PDM (\( M = 3.81, SD = 1.48 \)). A one-way ANOVA revealed significant group differences for this effect, \( F(3, 1044) = 24.02, p < .001 \). Pairwise comparisons identified nurses feeling the least effective (\( M = 3.38, SD = 1.42 \)) compared to physicians’ (\( M = 4.42, SD = 1.35; p < .001 \)) and pharmacists’ (\( M = 3.79, SD = 1.29; p < .05 \)) ratings of themselves. Additionally, pharmacists and dentists rated their effectiveness less than physicians did (\( p < .001 \) and \( p < .05 \), respectively).

INTERPRETATION

Overall, the findings indicate that HCPs perceive substantial barriers to identify and address PDM in patients. Among physicians and nurses the top three barriers identified were a lack of patient honesty, insufficient time with patients and a lack of communication with patients. Similarly, dentists also indicated a lack of patient honesty as a top barrier, however they rated a lack of communication with the patient, as well as with other HCPs as key barriers. Likewise, pharmacists’ identified lack of communication with patients’ other HCPs in their top three barriers. Together, these findings point to key priority areas from which educational strategies could be targeted for each HCP group (e.g., facilitating interdisciplinary communication) in order to increase their capacity to prevent and address PDM. In line with these findings, this study also found that perceptions of other barriers examined varied significantly across HCP groups. By example, inadequate knowledge or training was rated higher among nurses than physicians, whereas reluctance to inquire about PDM was rated higher among dentists, nurses, and pharmacists compared to physicians. Together, these differences suggest that training might need to be tailored to each group in an effort to enhance HCPs’ efficacy in identifying and addressing the harms associated with prescription drugs. Disconcertingly, approximately three quarters of respondents felt they did not have adequate support to address PDM. As well, HCPs’ self-ratings of effectiveness were relatively low. Together, these findings substantiate a critical need for better educational and prevention initiatives for HCPs to effectively intervene with patients suspected of misusing prescription drugs. This has been previously identified in recommendations in the First Do No Harm strategy\(^a\).

These results are consistent with previous qualitative work which indicated that factors such as a lack of communication among HCPs, a lack of clarity of what constitutes PDM and unclear and ambiguous symptoms represent barriers among HCPs\(^b\). In line with improving HCPs’ perceptions of efficacy in addressing PDM, an Ontario study of physicians’ opioid prescribing practices also called for access to a provincial database and better clinical guidelines\(^c\). Despite the substantial harms associated with PDM, this study and others consistently highlight a great need for more education and resources for HCPs\(^d\). However, there are existing widespread educational support strategies ongoing in the United States (US) to improve prescriber practices of opioids, such as the Risk Evaluation and Mitigation Strategies (REMS) that are mandated by the US Food and Drug Administration. Within Canada, a prescription monitoring program has been implemented in Nova Scotia to identify risky prescribing behaviours among physicians and to provide educational interventions for the individuals that are indicated. Finding ways to improve training for a variety of Canadian HCPs is essential as there is evidence to suggest that HCPs who feel unconfident in their abilities to communicate with patients are less likely to address PDM\(^e\) and those who have had less education related to PDM are also less likely to intervene with patients\(^f\).

Taken together, these findings support the need to increase HCPs’ ability to identify and address PDM among patients. This could be enabled through clearer protocols and training on the clinical signs of PDM, or through the development and validation of a brief screening instrument or other point-of-care tools. Currently, there are several tools available to screen patients who HCPs suspect might be at risk of misusing prescription drugs, such as the Screener and Opioid Assessment for Patients with Pain (SOAPP)\(^g\), the Current Opioid Misuse Measure (COMM)\(^h\) and the Opioid Risk Tool (ORT)\(^i\). However, these tools are limited to opioids and are not necessarily tailored for specific healthcare professionals, and there remains a need to develop different or complementary resources for screening the misuse of prescription sedative-hypnotics and stimulants.
LIMITATIONS

The study’s findings should be interpreted in light of its limitations. First, the sample comprised HCPs from Alberta and thus the findings might not be representative of other provinces/territories or Canada as a whole. Second, the majority of the sample was female, which may possibly limit the generalizability of the findings to males. Third, the number of participants in each group varied considerably and the response rate for physicians was quite low (representing less than 10% of the total sample) and nurses represented the largest majority. The inclusion of nurses in the current study is still very relevant as they play a critical role in their capacity to screen and intervene with patients under their care. Nonetheless, overall estimates should be interpreted cautiously, although examination of group means revealed consistent trends in the direction of responses across professional groups and the data were weighted. Finally, we cannot ensure that each HCP conceptualized PDM in the same manner. Although efforts were made to limit variations in how participants might have defined PDM by presenting a unified description, there is some suggestion that this may not be sufficient to eliminate pre-existing beliefs.

CONCLUSION

The First Do No Harm strategy addresses the harms associated with prescription drugs while giving important consideration to their therapeutic uses. One of the key challenges moving forward for HCPs and policy makers is how to address PDM while still ensuring appropriate treatment for patients. Professional colleges and associations should enhance current supports and educational opportunities for their members. Decision makers and treatment system planners should explore ways to facilitate better communication among HCPs as well as ensure adequate training. For example, one way the First Do No Harm strategy is working with regulatory colleges and associations to address this public policy problem, is by providing these groups with competencies for a range of healthcare practitioners so that their members will be better equipped to mitigate the harms associated with prescription drugs. Ultimately, by limiting some of the existing barriers, HCPs will be better prepared to address this public health crisis.

REFERENCES


Systematic Literature Review on Buprenorphine/naloxone Use in Outpatient Opioid Dependence Treatment

Fiona Main, MD, CCFP, Len Kelly, MD, M Clin Sci, FCFP, FRM

ABSTRACT

Objective: Summarize the literature on buprenorphine/naloxone for outpatient treatment of opioid dependence disorder. Methods: a literature of EMBASE and Medline 2000-2014 using the terms “naloxone + buprenorphine” and “opioid-related disorders”. Results: Over two hundred articles were retrieved. Seventeen studies were ultimately selected and reviewed for study quality, using Downs and Black’s 1998 checklist, the Canadian Task Force on Preventive Health Care levels of evidence and study outcome analysis. Conclusion: Buprenorphine/naloxone appears to be a safe, effective treatment modality for treatment of opioid dependence. As a recently introduced medication in North America, clinicians are slow to fully embrace it use. It provides an opportunity to more widely provide opioid substitution therapy in primary care settings. Key words: addiction, opioid substitution therapy, buprenorphine/naloxone, outpatient.

INTRODUCTION

The introduction in the last decade of buprenorphine/naloxone to the choice of treatment for opioid dependence is reflected in new types of treatment options and research opportunities. With a recognized safety profile, less monitoring and even ‘home starts,’ it allows for outpatient management of substitution therapy where indicated. A relevant research base is developing. In this literature review, we explore the outpatient use of the combination medication buprenorphine/naloxone.

METHOD

A search of the literature from Jan 2000- July 2014 was conducted on EMBASE and Medline databases using the terms “naloxone + buprenorphine” and “opioid-related disorders”. This yielded a total of 234 studies. Reference lists of review papers were also reviewed for relevant articles. The abstracts of all studies were reviewed and studies selected for original research dealing with outpatient buprenorphine-naloxone maintenance treatment for addiction. Studies looking at pregnant or HIV-positive populations, and those dealing with buprenorphine-naloxone induction or inpatient treatment were excluded. Seventeen studies were ultimately selected and reviewed for study quality, using Downs and Black’s 1998 checklist, the Canadian Task Force on Preventive Health Care levels of evidence and study outcomes analysis.

RESULTS

STUDY CHARACTERISTICS

The characteristics in the studies included are summarized in Table 1. The vast majority of studies had a predominance of male participants. Eleven/17 data sets specified type of opioid used (heroin vs. prescription opioids). Of these, three studies included only heroin users, four included a majority of heroin users, and four included a majority of prescription opioid users. Eleven/17 studies specified the race of their participants. In these 11 studies, 25-94% of participants were white, with the most common other races being African American and Hispanic. No studies identified Aboriginal participants. Fifteen/17 studies were conducted in the United States, and none in Canada. All studies were primarily conducted in urban settings.

Many studies had exclusion criteria for those suffering...
from serious medical and psychiatric illness, including comorbid addiction with alcohol.

Treatment in these studies was administered by a variety of medical specialties including family medicine. A combination of buprenorphine-naloxone, as opposed to buprenorphine alone, was used in all 17 of the studies.

**RETENTION RATES**

Major outcomes are summarized in Table 2. The most common length of time reported for retention was six months. At six months, from 36-78% of patients were retained in treatment with buprenorphine/naloxone. One study reported sobriety rather than retention as primary outcome, and 54% were sober at six months. At 12 months, between 25-77% of patients were retained in treatment.

**ABSTINENCE FROM OPIOIDS**

In general, studies did not require abstinence from patients in order to continue treatment. The percentage of opioid negative urines was reported either as an average of the entire study period, or at the end point of the study. Between 40-85% of urine samples were free of opioids at six month end points. There appeared to be positive correlation between observer rated abstinence and urine results.

**QUALITY OF LIFE MEASUREMENTS**

Several studies showed significant improvement in quality of life and addiction related behavior during and after buprenorphine/naloxone treatment. No studies which examined these outcomes found negative results.

**EFFECTS DURING FOLLOW-UP**

Relatively few follow up results suggesting long term efficacy of treatment are available. Several studies examined different durations of treatment followed by tapering, meaning that patient were all off buprenorphine/naloxone when followed up. One study found that patients treated with buprenorphine/naloxone and tapered off during the study were more likely to be in addiction treatment when followed up, compared to those treated and tapered off methadone. This may be secondary to a shorter retention duration compared to methadone and/or a high satisfaction with buprenorphine/naloxone treatment. One high quality RCT comparing a two-week maintenance and taper to a 12-week maintenance and taper found that overall only 8.6% of tapered individuals maintained abstinence at follow-up.

Two studies of longer maintenance treatments have shown varied retention rates demonstrated that of individuals who successfully completed six months of treatment with buprenorphine/naloxone, 38% were retained in treatment two years later. An observational study found that of individuals who successfully completed 12 months of treatment, 77% were still in treatment a minimum of 18 months later.

**FACTORS PREDICTING SUCCESS**

Several pre-existing patient factors were found to predict successful retention and abstinence during the studies. These factors are summarized in Table 3. The most common variable found to positively predict success was older age, both at time of treatment and at time of opioid dependence onset. Prescription drug users on average may be younger, have fewer years of opioid dependence, and less addiction treatment in their past. Specifically, use of illicit buprenorphine and methadone may be a positive variable predicting success. One study found that comorbid alcohol abuse may predict failure with buprenorphine/naloxone treatment.

Race may be a variable affecting outcome, as two studies found that African American or Hispanic race negatively affect treatment success, while controlling for other variables.

Route of drug abuse was also a significant variable in three studies, with two finding that non-intravenous (IV) drug users had more positive outcomes, and a third finding that recent IV drug user predicted success. The latter study was conducted with youth aged 15-21, and intravenous drug use was thought to correlate with more self-perceived severity of illness and willingness to comply with treatment.

Although sufferers of severe mental or physical illness were often excluded from these studies, several times patients with chronic mental or physical conditions were noted to have superior outcomes. It may be that these patients benefit more from analgesic properties of buprenorphine/naloxone and mental stabilization secondary to treatment.

As expected, variables suggesting stability such as employment, marriage or long term relationship, and not being homeless are also predictors of treatment success. In one study, history of incarceration was found to not significantly influence outcomes.
In-treatment variables, which have been thoroughly studied, involve degree and type of psychosocial support provided. A Cochrane Review of 27 studies showed that there was no benefit of additional psychosocial intervention over standard maintenance treatment, in any outcome measured. The control maintenance treatment in the studies in this Cochrane review all included some degree of counseling services. There does not seem to be any additional benefit offered by more intensive therapy, when retention, abstinence and success at follow-up are measured.

Warden (2012) also found that youth who successfully abstained from illicit drugs during the first two weeks of treatment were much more likely to be retained for the study duration. Particularly given the safety of buprenorphine/naloxone during induction, these findings recommend higher doses during the induction period.

ADVERSE EFFECTS/MORTALITY

Adverse effects secondary to treatment were reported in the majority of studies reviewed, although not compared statistically. No significant or fatal increase in adverse events with buprenorphine/naloxone compared to other treatments was reported.

Although community-level harms such as crime related to opioid dependence are well documented, no studies were found which examined the impact of maintenance treatment on these outcomes.

DISCUSSION

The documentation of the safety of the combination of buprenorphine/naloxone is developing. It can also be assumed from the literature on single agent buprenorphine. A review of buprenorphine from France revealed over a four year period, the risk of overdose attributable to buprenorphine was 10 times less than that attributable to methadone. Overall, opioid dependence studies have found much lower risk of death for those in maintenance treatment with buprenorphine or methadone, compared to those not in treatment. One buprenorphine study revealed that a shocking 4 of 20 patients in placebo control group died over the one year study period, compared to no deaths in the treatment group.

Buprenorphine/naloxone seems well suited to substitution therapy with prescription drug use, particularly with patients who have not progressed to intravenous drug use.

CONCLUSION

Since approval in the USA in 2002 and Canada in 2007, buprenorphine/naloxone is safely meeting a need for outpatient management of opioid dependence. Research in its first decade of use has rendered a useful picture of its use in community-based programs. While inpatient programs will always be needed for complex case management and treatment. Primary care and outpatient treatment of opioid dependence is facilitated by the safety and efficacy of buprenorphine/naloxone. Primary care settings allow for easy access for co-morbid conditions and even other accompanying family members.

Research capacity, prescribing and treatment continuing medical education pose the next challenges in primary care leadership in treatment of opioid dependence in the community.

The literature demonstrates the safety and efficacy of buprenorphine/naloxone. This evidence supports the increased use of this treatment modality for treatment of opioid dependence in the outpatient setting.

<table>
<thead>
<tr>
<th>STUDY</th>
<th>DOWNS &amp; BLACK QUALITY SCORE (MAX 27)</th>
<th>NUMBER/TRIAL TYPE</th>
<th>LEVEL OF EVIDENCE</th>
<th>PARTICIPANTS</th>
<th>TYPE OF USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amato 2010</td>
<td>17</td>
<td>78, prospective, non-interventional</td>
<td>II</td>
<td>no race, Italy, urban</td>
<td>heroin</td>
</tr>
<tr>
<td>Apelt 2013</td>
<td>19</td>
<td>384, prospective, non-interventional</td>
<td>II</td>
<td>no race specified, Germany, likely urban</td>
<td>all were in maintenance tx already, type of opioid use not distinguished</td>
</tr>
<tr>
<td>Bell 2007</td>
<td>20</td>
<td>119, RCT</td>
<td>I</td>
<td>no race specified, Australia, likely urban</td>
<td>heroin only</td>
</tr>
<tr>
<td>Cunningham 2008</td>
<td>14</td>
<td>41, retrospective</td>
<td>II</td>
<td>90% non-white, urban, US</td>
<td>70% heroin</td>
</tr>
<tr>
<td>Curcio 2011</td>
<td>15</td>
<td>707 BP and 3105 MT, cohort</td>
<td>II</td>
<td>no race, urban, Italy</td>
<td></td>
</tr>
<tr>
<td>Dreifuss 2013/Weiss 2011</td>
<td>19/21</td>
<td>360, RCT</td>
<td>I</td>
<td>90% white, urban, US</td>
<td>less than 1% were heroin users</td>
</tr>
</tbody>
</table>
### TABLE 1: STUDY CHARACTERISTICS

<table>
<thead>
<tr>
<th>STUDY</th>
<th>DOWNS &amp; BLACK QUALITY SCORE (MAX 27)</th>
<th>NUMBER/ TRIAL TYPE</th>
<th>LEVEL OF EVIDENCE</th>
<th>PARTICIPANTS</th>
<th>TYPE OF USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiellin 2006 and 2008/Moore 2007/Wang 2010</td>
<td>20/17/16/21</td>
<td>166, RCT, 54 in follow up</td>
<td>I</td>
<td>75% white race, urban, US</td>
<td>55% hx of IVDU</td>
</tr>
<tr>
<td>Fudala 2003</td>
<td>22</td>
<td>326 RCT, 46i open label observation</td>
<td>I</td>
<td>60% white, 2% Native American, urban, US</td>
<td>30% hx of IVDU</td>
</tr>
<tr>
<td>Kakko 2007</td>
<td>25</td>
<td>96, RCT</td>
<td>II</td>
<td>no race, Sweden, urban</td>
<td>all heroin</td>
</tr>
<tr>
<td>Mintzer 2007</td>
<td>17</td>
<td>99, prospective, non interventiona</td>
<td>II</td>
<td>94% white, urban, US, primary care clinics</td>
<td>about 75% heroin addicts</td>
</tr>
<tr>
<td>Miotto 2012</td>
<td>15</td>
<td>94, RCT</td>
<td>II</td>
<td>58% white, urban, US</td>
<td>30% heroin</td>
</tr>
<tr>
<td>Neumann 2013</td>
<td>18</td>
<td>356, retrospective case control</td>
<td>II</td>
<td>80% white, urban, US, primary care</td>
<td>74% prescription drugs</td>
</tr>
<tr>
<td>Nielsen 2013/Ling 2009</td>
<td>21/20</td>
<td>516, RCT</td>
<td>I</td>
<td>no race, US, urban</td>
<td>stratified by type of use</td>
</tr>
<tr>
<td>Parran 2010</td>
<td>14</td>
<td>110, cross sectional (follow up)</td>
<td>II</td>
<td>73% white, urban, US</td>
<td>88% heroin</td>
</tr>
<tr>
<td>Woody 2008/Polsky 2010/Subramaniam 2011/Warden 2012</td>
<td>20/19/21/19</td>
<td>152, RCT</td>
<td>I</td>
<td>74% white, urban, US</td>
<td>41% heroin, youth 15-21</td>
</tr>
<tr>
<td>Potter 2013</td>
<td>20</td>
<td>1269 RCT, secondary analysis</td>
<td>I</td>
<td>74% white, 1% Indian, urban, US</td>
<td>stratified by type of use</td>
</tr>
<tr>
<td>Stancliff 2012</td>
<td>14</td>
<td>100, prospective, non interventiona</td>
<td>II</td>
<td>25% white, 50% hispanic, lower SES, urban, US</td>
<td>86% heroin, half IVDU, &quot;marginalyzed&quot; population</td>
</tr>
</tbody>
</table>

### TABLE 2: STUDY OUTCOMES

<table>
<thead>
<tr>
<th>STUDY</th>
<th>RETENTION AT END OF STUDY</th>
<th>ABSTINENCE</th>
<th>RESULTS AT FOLLOW UP</th>
<th>OTHER OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apelt 2013</td>
<td>57.1% at 12 mos</td>
<td>98% negative urine for opioid at final assmt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell 2007</td>
<td>59% at 3 mos</td>
<td>self reported- 52% reported no use in past mos at 3 mos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cunningham 2008</td>
<td>71% at 3 mos</td>
<td>76% negative urines overall</td>
<td></td>
<td>Those on BP had significantly lower risk of death during induction; but treatment risk and post-treatment risk was similar.</td>
</tr>
<tr>
<td>Curcio 2011</td>
<td></td>
<td>BP users urine was 53% neg, MT users 30% neg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dreifuss 2013/Weiss 2011</td>
<td>49% at 3 mos</td>
<td>69% negative urines overall</td>
<td>8 weeks after taper, 8% continued abstinence</td>
<td></td>
</tr>
<tr>
<td>Fiellin 2006 and 2008/Moore 2007/Wang 2010</td>
<td>45% at 6 mos</td>
<td>40% negative urines overall</td>
<td>38% of those retained at 6 mos were retained at 2 years, with 91% opioid free urines</td>
<td></td>
</tr>
<tr>
<td>Fudala 2003</td>
<td>55% at 6 mos</td>
<td>54% neg urine at six mos</td>
<td>Serum transaminases were followed with no significant adverse effects</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 2: STUDY OUTCOMES

<table>
<thead>
<tr>
<th>Study</th>
<th>Retention at End of Study</th>
<th>Abstinence</th>
<th>Results at Follow Up</th>
<th>Other Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kakko 2003</td>
<td>75% at 12 mos</td>
<td>75% neg urine at 12 mos</td>
<td>self reported/observer reported health outcomes improved significantly</td>
<td></td>
</tr>
<tr>
<td>Kakko 2007</td>
<td>78% at 6 mos</td>
<td>80% neg urine at six mos</td>
<td>4/20 died in control group. Tx group showed sig improvement in addiction severity index</td>
<td></td>
</tr>
<tr>
<td>Mintzer 2007</td>
<td>54% &quot;sober&quot; at 6 mos- urine free of opioids</td>
<td></td>
<td>Presence of psychiatric illness not a significant predictor of tx outcome.</td>
<td></td>
</tr>
<tr>
<td>Miotto 2012</td>
<td>35% at 5 mos, 25% at 12 mos</td>
<td>opioid use &quot;decreased&quot; but no numbers given</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neumann 2013</td>
<td>35.7% at 6 mos</td>
<td>85% of completers had all opioid neg urines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nielsen 2013/Ling 2009</td>
<td></td>
<td>40% were urine opioid neg after taper, with no benefit to longer taper (28d vs 7d)</td>
<td>12% negative urines after 3 mos post taper</td>
<td></td>
</tr>
<tr>
<td>Parran 2010</td>
<td></td>
<td></td>
<td>77% of those retained at 12 mos remained on tx 18-42 mos later</td>
<td></td>
</tr>
<tr>
<td>Woody 2008/Polsky 2010/Subramaniam 2011/Warden 2012</td>
<td>70% at 12 weeks</td>
<td>57% negative urine at 12 weeks, reported less injecting, less opioid use, less cocaine use than control group</td>
<td>all tapered, 60% negative urines at 12 mos f/u, more likely to be in addiction tx than control group</td>
<td>Those who remained on bup had less substance use, fewer psychosocial complications of addiction, more AA affiliation activities, and increased employment at follow-up</td>
</tr>
<tr>
<td>Potter 2013</td>
<td>46% at 6 mos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stancliff 2012</td>
<td>42% at 12 mos</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 3: PREDICTORS OF OUTCOMES

<table>
<thead>
<tr>
<th>Study</th>
<th>Predictors of Success</th>
<th>Predictors of Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apelt 2013</td>
<td>older, married or living with a partner, working in a full-time job and living in their own flat</td>
<td></td>
</tr>
<tr>
<td>Alford 2011</td>
<td>older, employed, and who self-maintained with illicit buprenorphine had significantly higher odds of success</td>
<td>African American or Hispanic race had significantly lower odds of treatment success</td>
</tr>
<tr>
<td>Cunningham 2008</td>
<td>users of street methadone</td>
<td>users of alcohol and opioid analgesics</td>
</tr>
<tr>
<td>Dreifuss 2013/Weiss 2011</td>
<td>age, lifetime major depressive disorder, having only used opioids by swallowing or sublingual administration, and receiving no prior opioid dependence treatment</td>
<td>previous use of heroin, having used Oxycontin as most frequent drug</td>
</tr>
<tr>
<td>Fiellin 2006 and 2008/Moore 2007/Wang 2010</td>
<td>Prescription opioid use only.</td>
<td>Incarceration history was not significantly associated with tx outcomes</td>
</tr>
<tr>
<td>Mintzer 2007</td>
<td>private insurance coverage (possible surrogate for employment?), older age, and longer duration of treatment</td>
<td></td>
</tr>
<tr>
<td>Neumann 2013</td>
<td>Counseling attendance and history of past injury/trauma. Chronic pain not measured.</td>
<td></td>
</tr>
<tr>
<td>Nielsen 2013/Ling 2009</td>
<td>PO users had significantly more opioid free urine at end of study, significance disappeared when controlling for physical conditions.</td>
<td></td>
</tr>
<tr>
<td>Parran 2010</td>
<td>being employed at entry into the study and the use of prescription opioids rather than heroin</td>
<td>Lower SES slightly more likely to be retained, but more likely to report continued opioid abuse.</td>
</tr>
</tbody>
</table>
### TABLE 3: PREDICTORS OF OUTCOMES

<table>
<thead>
<tr>
<th>Predictors of Success</th>
<th>Predictors of Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woody 2008/Polsky 2010/Subramaniam 2011/Warden 2012</td>
<td>Recent IVDU, active medical or psychiatric condition, use of medications, early abstinence during study, non-heroin drug use</td>
</tr>
<tr>
<td>Potter 2013</td>
<td>Opioid analgesics as opposed to heroin or combined users. Non-injectors compared to injectors.</td>
</tr>
<tr>
<td>Stancliff 2012</td>
<td>African American race, not influenced by pre tx drug of choice</td>
</tr>
<tr>
<td></td>
<td>older age, African American Latino</td>
</tr>
</tbody>
</table>

### REFERENCES


Inpatient Management Of A Patient Enrolled In An Injectable Opioid Study: A Case Report

Tyler Wilson, BSc, Evan Wood MD, PhD, FRCP; Keith Ahamad MD, CCFP

ABSTRACT

Objectives: Methadone and buprenorphine-naloxone are the standard of care for the treatment of opioid addiction. Due to the inability of these medications to successfully treat some patients, investigators have explored other medications in treating opioid use. In Vancouver, the Study to Assess Long Term Maintenance-Opioid Effectiveness (SALOME) compared diacetylmorphine to injectable hydromorphone for the treatment of opioid use disorder refractory to methadone maintenance therapy. This case report describes the maintenance of opioid agonist therapy (OAT) in a hospitalized surgical patient enrolled in the SALOME trial where his clinicians were blinded to his study treatment. Methods and Results: The patient was admitted with a large bowel obstruction and underwent emergency decompressive ileostomy surgery. His OAT regimen was unknown to the addiction physician. Opioid addiction and pain was treated by ascertaining the patient’s diazepam history and prescribing methadone with oral hydromorphone for breakthrough pain. The study team. This was converted to an equivalent dose of methadone with oral hydromorphone for breakthrough symptoms with several safety parameters put in place. The patient recovered well and resumed blinded participation in SALOME. Conclusions: Inpatient management of patients on opioid agonist treatments is complicated by acute medical comorbidities and other factors. This case was further complicated by the patients blinded status in a clinical trial and illustrates the safety considerations when continuing and titrating opioid agonist treatments in acutely unwell medical hospitalized patients. To best treat these patients, healthcare institutions must educate health care providers, create multidisciplinary teams with addiction expertise, and establish evidence-based policy.Key Words: Opioid Agonist Treatment, Methadone, Diacetylmorphine, Hydromorphone, Opioid Use Disorder
Objectifs: Le recours à la méthadone et à la buprénorphine/naloxone pour le traitement de la dépendance aux opioïdes est une norme en pratique de soins. Étant donné l’incapacité de ces médications à traiter avec succès certains patients, les chercheurs ont exploré l’utilisation d’autres médications dans le traitement de la consommation d’opioïdes. À Vancouver, le Study to Assess Long Term Maintenance-Opioid Effectiveness (SALOME) a comparé l’utilisation du diacétylmorphine à l’hydromorphone en injection pour le traitement des troubles liés à la consommation d’opioïdes réfractaires au traitement de substitution avec méthadone. Cette étude de cas décrit le traitement aux agonistes des opioïdes (TAO) chez un patient hospitalisé en chirurgie et participant à l’essai clinique SALOME. L’assignation du bras de l’étude était à l’insu des cliniciens impliqués dans les soins. Méthodes et résultats: Le patient a été admis à l’hôpital avec une occlusion intestinale et a subi d’urgence une iléostomie de décompression. Son TAO était inconnu du médecin spécialisé en toxicomanie. La dépendance aux opioïdes et la douleur ont été traitées en vérifiant les doses équivalentes en diacétylmorphine auprès de l’équipe de SALOME. Ces données ont été converties en doses équivalentes de méthadone en combinaison avec de l’hydromorphone oral pour les épisodes symptomatiques et plusieurs paramètres de sécurité mis en place. Le patient a bien récupéré et a repris sa participation au projet SALOME avec bras à l’insu des cliniciens. Conclusions: La gestion des patients hospitalisés et sous TAO est rendue plus difficile par la présence de comorbidités médicales et autres facteurs. Cette étude de cas était encore plus complexe du fait de la participation du patient à une étude clinique aux bras à l’insu des cliniciens et illustre les considérations à prendre en mesure de sécurité lorsque le titrage d’un TAO se poursuit chez un patient hospitalisé pour une condition aiguë. Pour offrir de meilleurs soins à ces patients, les institutions de santé doivent éduquer les professionnels de santé, créer des équipes multidisciplinaires avec une expertise en toxicomanie et mettre sur pied des politiques basées sur des données probantes. Mots clés: traitement aux agonistes des opioïdes, méthadone, diacétylmorphine, hydromorphone, troubles liés à la consommation d’opioïdes

INTRODUCTION

Opioid agonist therapy (OAT) with either methadone maintenance therapy (MMT) or buprenorphine/naloxone (Suboxone) is the current standard of care for treating opioid use disorder (OUD). As this patient population grows, the inpatient medical management of patients on OAT becomes an increasingly pressing concern. While MMT has been shown to decrease hospitalization rates compared to untreated opioid users, patients on OAT have higher rates of hospitalization and emergency department utilization then the general population. This population suffers from increased rates of physical violence, chronic pain, mental illness, HIV, Hepatitis C, and other chronic conditions. Effective OAT has been shown to improve overall physical and mental health in patients with opioid use disorder.

Treating hospitalized patients prescribed OAT presents a clinical challenge. While these medications should be continued during hospitalization, comorbidities, drug-drug interactions, and differences between OAT modalities make this complex. Physicians are required to balance patient safety (e.g. drug toxicities) and avoid opioid withdrawal, while treating the presenting medical condition. Inpatient methadone (Methadose) use has been shown to reduce the risk of patients leaving against medical advice, which is associated with significant morbidity and increased readmission.

In addition to methadone and buprenorphine, several settings are seeking to expand available therapies to include other medications including diacetylmorphine, slow release oral morphine (Kadian) and hydromorphone (Dilaudid). In Vancouver, a recent trial known as the Study to Assess Long Term Opioid Maintenance Effectiveness (SALOME), has compared injectable hydromorphone to diacetylmorphine (Heroin) for treatment of OUD refractory to MMT. The care of blinded trial participants has been particularly challenging due to the fact that hospital clinicians had to remain blinded to which study medication (hydromorphone vs. diacetylmorphine) patients are on. As such, conversion tables were created to help guide clinicians to convert from injected diacetylmorphine equivalents (DAME) to oral methadone (Table 1). This case report describes the medical management of a study participant enrolled in the SALOME trial who had acute medical illness requiring surgical intervention and illustrates the clinical challenges and an approach to management in this situation.

CASE PRESENTATION

A 51-year-old male with a recent diagnosis of rectal cancer presented to a local academic hospital (Saint Paul’s Hospital) in Vancouver, Canada with a one-month history of progressive lower abdominal pain worsening over 24 hours, hematochezia, diarrhea, night sweats, and weight loss. A previous CT scan showed a large rectal mass extending into the mesorectal fascia with enlarged
lymph nodes in the superior rectal region and no prominent metastases. Abdominal plain films showed fecal loading, distension of the colon, and mild gaseous distension of the small bowel. He was seen by general surgery, diagnosed with large bowel obstruction, and booked for emergency decompressive diverting loop ileostomy.

With respect to his substance use history, the individual first used intravenous heroin at age 13 and had multiple attempts of methadone maintenance therapy (MMT), the most recent of which was eight months prior to admission. Other substance use included longstanding tobacco use, intravenous cocaine from age 16 to 50, methamphetamine from age 41 to 50, daily alcohol from age 20-30 and daily marijuana from age 16-48. While enrolled in the SALOME study, he denied on-going illicit opioid use and he was currently blinded to study drug.

On presentation to the emergency department, by nursing report, the patient was agitated, had uncontrolled loose bowel movements, and refused attempts to clean his bedding and person. The social worker noted that he had given up hope and was struggling to cope with his new diagnosis. Following surgery, he entered the post-operative care unit and received 9 doses of 50 micrograms of fentanyl IV (450 micrograms total) and 11 doses of between 1 and 10mg morphine IV (44mg total) over two and a half hours. After being transferred to the ward, his pain medications changed to 5-10mg morphine PO q4h PRN and 1-2mg IV q30min PRN, which was increased two hours later to 10-20mg PO q4h PRN and 1-4mg IV q30min PRN. He received 5 doses of oral morphine (90mg total) and 6 doses of IV morphine (20mg total) over 17 hours. Despite escalating doses of analgesics, nursing notes indicate poor pain control with complaints of 10/10 pain, on-going agitation, and refusal of educational sessions on use of his ileostomy bag.

The Addiction Medicine Consult Team (AMCT) was asked to see the patient. They were able to ascertain from the SALOME study physician that the participant had been receiving 720 diacetylmorphine equivalent dose (DAME) daily divided into three 240 DAME IV injections. Based on the estimates shown in Table 1, the individual’s morphine was discontinued and he was estimated to initially require a minimum of 120mg of methadone which, for safety reasons was converted to 40mg methadone PO TID plus 5-10mg hydromorphone PO q3hrs PRN for breakthrough opioid withdrawal and pain. Over the subsequent eight days, he received methadone as prescribed and used 20-50mg of hydromorphone daily. During regular follow-ups his pain was well controlled and there were no reports of withdrawal or opioid overdose. Nursing notes indicate that he was alert and oriented, pleasant with nursing staff, engaged in frequent sessions with his ileostomy nurse on the care of his ileostomy bag, and reported low pain scores. Prior to discharge, he was tolerating a full diet, passing stool and gas into his ileostomy bag, and was well informed on use of his bag. He was discharged home in stable condition with follow-up arranged to continue as a study participant in SALOME.

**DISCUSSION**

We have described the case of inpatient management of OAT in a surgical patient enrolled in SALOME, a trial comparing injectable diacetylmorphine to hydromorphone, and blinded to his treatment assignment. This patient was on high-dose opioids to treat his OUD, which initially made his pain difficult to control and complicated his medical care. His opioid regimen was converted to a combination of methadone and hydromorphone using conversion ratios developed specifically for opiate agonist treatment. He reported low pain scores on this regimen, displayed no signs of withdrawal, and became engaged with nursing staff around his medical care and discharge planning.

The importance of continuing OAT in hospitalized patients is well established. Maintenance of OAT is hospital is complex and previously stable patients may require dose modification to account for new drug-drug interactions, relationships to underlying disease states, management of acute pain, and conversion between OAT modalities. As was done in this case, these safety concerns generally require splitting the opioid replacement regimen into multiple daily doses with symptom-triggered management with close nursing supervision to add or hold PRN treatments. In this context, acute pain management can be especially challenging in these patients due to high tolerance and withdrawal can cloud the clinical picture. Much is known about treating pain while patients are taking well-studied medications like methadone; however, little is known about the unique properties of newer opioids. Converting between newer opioids is challenging as opioid conversion tables have traditionally been derived from studies of chronic cancer patients who are opiate naïve. More study is required on potency ratios of these novel opioids in chronic illicit opioid users.

Many studies have shown the efficacy of diacetylmorphine when compared to methadone and, more recently, sustained oral release morphine. As these evidence-based treatment modalities become more commonly used, physicians will require expertise to effectively treat pain, prevent withdrawal, and avoid overdose while continuing OAT.

In the brief case report, we have described the case of an inpatient treated with high-dose opioids for OUD, blinded to his treatment, admitted with a bowel obstruction, and referred with an acute pain crisis in the context of inadequate opioid analgesic. As the evidence base for other treatment expands, these clinical scenarios stand
to become increasingly common and complex. Although much is known about treating hospitalized patients prescribed community methadone, less is known about medications like diacetylmorphine, hydromorphone and sustained oral release morphine. Effective interventions will need to be put into place, including expanding hospital addiction care policies, educating healthcare providers, and creation of multidisciplinary addiction teams.

REFERENCES


Implementation of a Naloxone Distribution Program in an Inpatient Addiction Service: A Case Study

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ABSTRACT

Opioid overdose is a major public health burden worldwide. While the development of community based opioid overdose prevention programs have expanded in recent years, the implementation of such programs for patients in a hospital setting is not well described. This case report describes the implementation of British Columbia’s Provincial Take Home Naloxone Program to patients evaluated by the Addiction Medicine Consult Team at St. Paul’s Hospital in Vancouver, Canada between August 2014 and August 2015. During this period, 61 individuals were educated on the use of naloxone and were trained on how to administer it intramuscularly in the suspected case of an opioid overdose. In total, 23 naloxone kits were dispensed for future use in the community upon discharge. Overall, the Take Home Naloxone program has been recognized as a worthwhile initiative by patients, physicians of the addiction medicine consult team and other interdisciplinary hospital staff. Given the ongoing burden of disease attributable to opioid overdose and the feasibility of providing naloxone education and take-home kits to high-risk hospitalized patients with an opioid use disorder and their family and friends, these findings underscore the unique opportunity that exists for overdose prevention interventions in an acute care setting. Keywords: naloxone, overdose, implementation, harm reduction, Vancouver


INTRODUCTION

Opioid overdose is a major public health issue worldwide. Previous studies have identified fatal overdose as the primary cause of death in the illicit drug using population. In 2013, over 16,200 individuals in the United States (US) died from a drug overdose involving an opioid analgesic, a number that has quadrupled since 1999. As more individuals turn to heroin, a cheaper and more accessible alternative, the number of heroin related overdoses has been on the rise in the US.

British Columbia (BC), Canada has shown similar trends. Provincial overdose data demonstrates a 70% increase in heroin and/or morphine related overdoses between 2008-2011. In addition, between 8-12% drug using adults surveyed in in BC reported experiencing an overdose in the last 6-12 months and between 12-36% reported witnessing an overdose in the same time period. There has also been a constant increase in fentanyl-detected overdose deaths over the last three years, with 49 reported deaths in the first 8 months of 2014 compared to a total of 51 deaths in 2013.

Unintentional deaths from opioid overdose are preventable through a range of interventions including...
overdose education using naloxone (Narcan®), an opioid receptor antagonist. Naloxone is on the World Health Organization’s list of essential medicines and can be used to reverse respiratory depression commonly associated with an opioid overdose\textsuperscript{10}. Numerous naloxone distribution programs exist worldwide - the US alone has more than 180 programs currently in existence\textsuperscript{11}. BC’s Take Home Naloxone Program (THN) was developed by the BC Centre for Disease Control (BCCDC) and implemented in August 2012. As of July 2015, the THN program has trained 4,038 individuals, dispensed 2,382 naloxone kits and has had 240 reported overdose reversals\textsuperscript{11}. THN training and kit distribution primarily occurs at outpatient community sites (i.e. harm reduction supply distribution, HIV clinics, community health centres) as well as two emergency departments. The THN program consists of overdose prevention training, signs and symptom of an opioid overdose, how to respond to a suspected overdose using the kit, completing required forms and where patients can receive additional kits and harm reduction supplies. The THN kit consists of 2 glass ampoules (0.4 mg/mL) of naloxone, 2 retractable VanishPoint\textsuperscript{®} intramuscular syringes, alcohol swabs, gloves, one-way rescue breathing mask and THN administration form as well as steps to respond to an overdose using the SAVE ME acronym (place in recovery position, call emergency services, S: stimulate; A: airway; V: ventilate; E: evaluate; M: muscular injection; E: Evaluate for 2\textsuperscript{nd} dose). At present, the only inpatient THN site is at St. Paul’s Hospital in Vancouver, BC with the Addiction Medicine Consult Team (AMCT).

The AMCT is a unique teaching service comprised of physicians specialized in addiction medicine, social workers, clinical fellows completing addiction training (physicians and nurses) residents and medical students. The team evaluates patients who are referred for an assessment of a substance use disorder and severity, medical management of withdrawal, relapse prevention, agonist therapy (i.e. methadone, buprenorphine/naloxone) and complex pain. Psychosocial interventions for long-term recovery, motivational interviewing and harm reduction approaches to treatment also comprise a large part of their work.

Though a variety of community sites have adopted the BC THN program, to date there has been minimal uptake by inpatient providers. As a result, naloxone distribution in an acute inpatient setting has not previously been described. This case report attempts to address this knowledge gap by describing the implementation of a naloxone distribution program amongst a hospitalized population of opioid users in a Canadian setting.

**CASE REPORT**

St. Paul’s Hospital AMCT implemented the THN program in August 2014. To effectively manage resource allocation and administrative support, collaboration between the inpatient AMCT and the St. Paul’s Hospital outpatient HIV immunodeficiency clinic (IDC) occurred. Naloxone kits were shipped directly to the IDC and staff from both the areas shared access to the supply kits, as well as training and educational resources. Site eligibility for involvement in the BC THN program requires the presence of a prescriber, an educator and a dispenser\textsuperscript{3}. As such, any staff physician from the AMCT was the designated prescriber for the program. An Addiction Nursing Fellow, who was the designated educator and dispenser, provided training on the THN program’s background and referral process to all designated prescribers, medical learners on the AMCT and hospital nursing staff. Individuals were instructed to contact the nursing fellow with the details of a patient suitable for enrollment in the program, if the patient was agreeable.

Two high-risk opioid-using patient groups were targeted for the program, both groups at increased risk for an opioid-related overdose. The first was patients with an opioid use disorder who refused methadone maintenance therapy (MMT) or buprenorphine/naloxone (Suboxone®) at the time of hospital discharge. The second was patients who may have been started on opioid substitution therapy (OST) and were determined to be at increased risk for overdose as a consequence of their hospitalization, use of concomitant medications (i.e. benzodiazepines), alcohol or were at risk for reduced tolerance. If eligible, the nursing fellow would visit the patient, arrange a suitable time for training and extend the invite for training to the patient’s friends or family members, if applicable.

To maximize recall, THN training was ideally scheduled close to the anticipated date of discharge from hospital. As naloxone is a prescription only medication in BC, the kit can only be prescribed to the patient with a history of opioid use disorder and/or prescription opioid misuse and not directly to friends and family members, although they are eligible to participate in training.

Training sessions varied in length from 5 to 60 minutes depending on the patient’s knowledge of the program, understanding and familiarity with naloxone and overdose experience. Two patients had previous THN training and therefore only required a 5-minute session, which provided them with a refill THN kit. Longer training sessions, sometimes up to 60 minutes, often occurred with the presence of multiple family members. The
location of each training session was based on patient preference and included either at the patient’s bedside or in a private hospital room. At the completion of training, the THN kit and naloxone were labeled with the patient’s name, provided to the ward unit nurse and stored safely for the patient until the time of discharge. Lastly, an interdisciplinary progress note was entered in the patient’s chart and a note was added to the patient’s hospital medication record as to the location of the kit. Patients were provided with additional training material and resources at their request. Further information on training and materials for the THN program can be found at http://www.towardtheheart.com.

Between August 2014 and August 2015 a total of 32 clients/family/friends were educated about overdose prevention and trained on the use of naloxone to prevent a fatal opioid overdose and 23 kits were dispensed (participants are only eligible to receive kits if they have a past or current history of illicit or prescription opioid misuse). Lastly, a further 29 health care professionals including social workers, physicians, nurses and nursing students were trained to conduct their own training sessions for suitable patients, their families and/or friends and dispense THN kits. Data on the number patients who refused training and total number of eligible patients or their friends/family was not captured for the purposes of this descriptive case study. Eligible patients may have not received training or the kit due to the pilot nature of the program.

DISCUSSION

This case study describes the successful implementation of a naloxone distribution program in an inpatient setting and highlights its acceptability and feasibility in this environment. To our knowledge, this is the first inpatient naloxone distribution program in BC.

Previous studies of the effectiveness of naloxone distribution programs have demonstrated a 46% reduction in opioid overdose mortality. Furthermore, it has been shown that training peers and people who use drugs to administer naloxone or act as peer educators may have other positive benefits including reductions in their own drug use and engagement in risk behaviours. Some challenges that were identified in the implementation of this program include the administrative burden (for example naloxone is a currently prescription only medication, which requires detailed documentation in terms of the prescribing, dispensing and training), variable levels of engagement by prescribers, patients that were trained leaving or forgetting kits on discharge as well as difficulty scheduling or locating patients for training. Observed opportunities and benefits of this program include increasing patient and family engagement and education on harm reduction strategies, a greater involvement of family members in the care and treatment plan and increased opportunities for addiction education with nurses and other health care providers.

Recent changes to the dispensing guidelines for program in May 2015 now allow registered nurses (RNs) to dispense naloxone kits without a physician’s prescription. This change is supported by a revised scope of practice, decision support tool and nursing competencies and has had a positive impact on the program, by increasing nursing leadership and decreasing the administrative burden. As a result of this change, there are opportunities for the THN program to further expand. More research is needed to explore the motivations for eligible participants that are not interested in receiving the kit while in hospital.

While AMCT staff and learners will be encouraged to continue to identify patients suitable and interested in the training program, training sessions will occur weekly through a group format and at a pre-determined time and location. It is hoped a group training setting will allow for an expansion on eligibility for participation with the THN program so as to include any patient with a history of illicit and/or prescription opioid misuse. One-on-one training at the bedside will remain available for those patients with reduced mobility or other limitations to attending group sessions.

In summary, this case report demonstrates the feasibility of incorporating harm reduction services such as the BC THN in a hospitalized population using the resources of an existing hospital-based addiction care service. There is strong evidence that naloxone distribution programs can have a large impact at a population level, with a clear dose-repose effect, with higher levels of distribution decreasing overdose mortality by 46%. Therefore, there is a continued need to scale up existing community programs like the BC THN program to a variety of settings, including hospitalized patient populations. If these expansion efforts are to be successful however, it is imperative the Province of BC and its health authorities commit to providing ongoing resources and support for the program.

ACKNOWLEDGMENTS:

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REFERENCES


Loss and grief among substance users and the programs that provide treatment for them in Ontario

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ABSTRACT

Background: Grief is an area that needs to be addressed when working with individuals recovering from substance use because of the complicated loss associated with the lifestyle of problem substance users. Problem substance users may prefer accessing grief services from agencies that provide substance use services rather than seeking grief counselling from mainstream services because of the stigma associated with substance use. Objective: To report on the number of agencies in Ontario that provide substance use services and also offer grief counselling by accessing the Drug and Alcohol Registry for Treatment. Specifically this study determines which type of agencies provide grief counselling across different settings and service delivery. Results: Out of the 215 agencies that are registered with the Drug and Alcohol Registry for Treatment, 47.4% (102/215) responded to the questionnaire. Among the seven categorical settings the only two that reported a substantial level of grief counselling as a service were Short-Term Residential Centers (73.7%) and Long-Term Residential Centers (58.4%). The overall rate of agencies that provide grief counselling among the 102 agencies was 29.5% (30/102). Conclusion: This study has briefly outlined the necessity of grief therapy in addressing issues of complicated grief and substance use. It is clear that there is a discrepancy in the number of agencies which provide grief therapy to substance users. In addressing the grief component for substance users, the addiction component may slowly become addressed as both issues are intertwined and exasperate the other. Key Words: grief counselling, loss, addiction, substance use treatment centres.

INTRODUCTION

Grief is widely accepted as an area that needs to be addressed when working with clients recovering from problem substance use because of the complicated loss associated with addiction issues. The lifestyle of those who have abused substances is associated with great loss and if it goes unresolved, the impact of these losses can merge into the unconscious and become cumulative. These matters may present the individual with long-term guilt and remorse that impedes recovery. This can be compounded because many addicts have difficulty expressing their feelings, resolving intrapersonal issues and difficulty working through the grief process. While grief can develop in any individual, the literature reports a high degree of grief pathology among those with problem substance use. The aim of this research was to investigate the number of substance use treatment agencies in Ontario that provide grief counselling for their clientele by accessing the Drug and Alcohol Registry for Treatment (DART). The study also sought to determine which type of agencies in Ontario provides grief counselling across different settings, service delivery, and specialty.
PROCEDURE

In winter 2015 researchers obtained a list of agencies registered with DART. These are agencies across Ontario that provide some level of substance use or gambling services for people seeking help. A questionnaire (Appendix 1) was emailed to the Executive Directors of all 215 agencies registered with DART. To those agencies that had not yet responded by the second letter, a third email was provided two weeks later. The research team consulted with the ethics review board at the Centre for Addiction and Mental Health and the project was deemed to not present any risk and not require REB review and approval. After receiving the final response to the questionnaires, agencies were categorized into setting and types of services offered, which resulted in seven categories: Long Term Residential Treatment (LTR); Short Term Residential Treatment (STR); Outpatient Community Day Treatment (OCD); Multi-service Agency (MS); Community Mental Health and Health Centre (CMH); Community Hospital (CH); Housing and Shelter (HS).

DATA RESULTS TABLE

<table>
<thead>
<tr>
<th></th>
<th>Long Term Residential Treatment</th>
<th>Short Term Residential Treatment</th>
<th>Outpatient Community Day Treatment</th>
<th>Multi-service Agency</th>
<th>Community Mental Health and Health Centre</th>
<th>Community Hospital</th>
<th>Housing and Shelter</th>
<th>Overall totals</th>
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<tr>
<td>Response rate</td>
<td>12=11.7%</td>
<td>11=10.7%</td>
<td>18=17.6%</td>
<td>16=15.6%</td>
<td>28=27.4%</td>
<td>14=13.7%</td>
<td>5=4.8%</td>
<td>215/102=47.4%</td>
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<td>No grief therapy</td>
<td>5/12=41.6%</td>
<td>4/11=36.3%</td>
<td>14/18=77.7%</td>
<td>15/16=93.7%</td>
<td>19/28=67.8%</td>
<td>13/14=90.2%</td>
<td>4/5=80.0%</td>
<td>72/102=70.5%</td>
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<td>Provides grief therapy</td>
<td>7</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>25/102=24.5%</td>
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<tr>
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<td>3</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>8</td>
<td>1</td>
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<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>No grief therapy, but provided if needed</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>9</td>
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<td>Incorporate into treatment cycle</td>
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<td>1</td>
<td>2</td>
<td>1</td>
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<td>1</td>
<td>0</td>
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<td>weekly</td>
<td>weekly</td>
<td>weekly</td>
<td>weekly or every 2nd week</td>
<td>not offered</td>
<td>weekly</td>
<td>weekly or twice weekly or every 2nd week</td>
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<td>5-12 weeks</td>
<td>indefinite</td>
<td>10 weeks</td>
<td>8-16 weeks</td>
<td>not offered</td>
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<td>5-16 weeks</td>
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<td>60 minutes</td>
<td>60-90 minutes</td>
<td>60 minutes</td>
<td>60 minutes</td>
<td>60-120 minutes</td>
<td>not offered</td>
<td>120 minutes</td>
<td>60-120 minutes</td>
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<td>Individual - How often provided</td>
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<td>weekly</td>
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<td>not offered</td>
<td>weekly</td>
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<td>4-13 wks or indefinite</td>
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<td>60-90 minutes</td>
<td>60 minutes</td>
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<td>60 minutes</td>
<td>60-90 minutes</td>
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</tbody>
</table>

RESULTS

Out of the 215 agencies that are registered with DART, almost half responded to the questionnaire, showing a response rate of 47.4% (102/215). The category with the highest response rate was CMH (27.4%), followed by OCD (17.6%) and MS (15.6%), and concluding with Hospitals (13.7%), LTR (11.7%), STR (10.7%) and HS (4.8%). Among the seven agency categories, the only two that reported a substantial level of grief counselling as a service was
STR (73.7%) and LTR (58.4%). Mental Health and Health Agencies (32.2%) and OCD (22.3%) showed that they provide some level of grief counselling within their service provision, but of the three remaining categories, only one agency within each category reported that they provide grief counselling to their clientele. The overall rate of agencies that provide grief counselling among the 102 agencies that responded to the questionnaire was 29.5% (30/102). Among the 30 that responded as providing grief counselling, 19 offered individual and 11 in a group format, with several categories offering both. Results were examined to identify how many agencies provide grief counselling among agencies that offer services to both men and women and for women and men separately. Results show that out of 86 agencies that responded to the questionnaire who provide services to both men and women, 22 offer grief counselling (25.5%). Out of the 8 that provide services only to women, 3 provide grief counselling and 1 out of 8 do so for men-specific agencies.

**DISCUSSION**

To our knowledge, this study is the first of its kind to investigate the number of substance use treatment agencies that provide grief counselling for their clientele. The study also determined which types of agencies provide grief counselling across different settings, service delivery and specialty. This helps to identify what type of agencies provide a higher rate of grief counselling and which type are lacking in this area of service provision.

When examining the LTR category it might be expected that these types of settings would have more agencies that provide grief counselling services than 7/12 (58.4%) when considering clients are able to establish a longer and closer therapeutic relationship with their treatment providers. The lower than expected rates could be that these long-term homes are more associated with housing and accommodation in an alcohol-free setting. These settings are also known to act as a transitional program that fosters responsibility and life skills to work towards independent living.

Short term residential treatment agencies show the most grief therapy (7/11 = 63.6%) offered among the seven categories. Much of the work done in these types of agencies are group based, so it is consistent with the results that show grief counselling being offered more in a group setting as opposed to individual counselling.

The CMH category showed the highest response rate among the seven groups at 27.4% and was third in providing grief counselling among all the categories at 32.2%. Agencies in this category tend to provide on-going, long-term case management for their clientele, because some clients may require frequent and closer attention due to a high rate of co-occurring mental health and addiction disorders.

In the OCD category, results show that 4/18 agencies provide grief counselling. The low rate of grief counselling offered by this category might be due to many of the agencies focusing on outreach and brief treatment, which has resulted in many agencies taking on a solution focused approach to counselling.

When viewing the results of the three remaining categories we see a significant decrease with agencies that provide grief counselling. The multiservice category is among the three categories that reported only one agency as providing grief counselling. These type of agencies are more concerned with their case management and referral specialty. The second category that has only one agency offering grief counselling is hospitals. The models of care and services provided among these hospitals are very similar, with outpatient treatment or withdrawal management as their main type of service. The third category that has only one agency that offers grief counselling is the housing category. What is unique about this single agency is that it is the only shelter on the list that responded to the questionnaire. What is impressive about this shelter is that it provides both group and individual grief counselling that runs indefinitely. This shelter may act as a model for other shelters, given that some clients may remain in the shelter system indefinitely, so it would be beneficial to provide grief work as a service.

What is interesting to note is that all four Aboriginal agencies that responded to the questionnaire provide some form of grief counselling. Another note of interest is women-specific agencies provide more grief counselling (3/8) than men-specific agencies (1/8).

After examining agency service profiles, researchers found that out of the 24 agencies that replied YES to providing grief counselling, two of the 24 provided this information as a service in the DART registry. We then contacted DART and informed them of our findings.

After reviewing the results of the questionnaire, it would appear that the long and short term residential settings that provide the highest rate of grief counselling are ideal settings for individuals to seek grief counselling and that shelters should consider extend their services to include grief counselling.

**STUDY LIMITATIONS AND FURTHER RESEARCH**

There are limitations that are evident from this study. The questionnaire does not allow for elaboration from agencies and the few questions were limiting in gathering more information. The questions were designed to have short and non-detailed answers so as to not be time consuming for the agencies to fill out and to foster a good response rate, which was somewhat achieved. However, the answers were
not as detailed as they could have been. For example, none of the questions identify what types of therapy were offered to clients. Also, the questionnaire was not able to assess for the drop-out rate, benefits, and deterrents of grief therapy within each agency setting. This is beneficial for this study because it would have informed the researchers of what is helpful in grief therapy and what is not helpful, along with other factors such as the therapist’s experience. Additionally, the credentials, experience, and style of therapy of the therapists/facilitators leading the group or individual sessions, would have been beneficial to this study because it would indicate the level of expertise and how well this helped clients in this situation. Also of interest would have been to inquire on whether agencies who refer clients to the community for grief counselling do so to the general grief counselling agencies or do counselors seek out other addiction agencies that do provide grief counseling. If this is the case, then it is imperative, that the grief service be provided in an agency’s service profile in DART.

Examining and tracking which type of agency setting refers to an outpatient program may be useful because it establishes what settings are significant points of grief identification and then what setting-type are they referred to for treatment. This could lead to training and the application of grief scales which help in identification, referral and treatment purposes. The questionnaire could have also provided questions pertaining to whether agencies offer grief counselling on an as needed basis, or incorporate it into their overall treatment modality. This would demonstrate that agencies consider this area of treatment, but do not provide it in a structured way and that there is significant reason to assume overlap between programs. Finally, three of the five references used are dated. There is a vast amount of trauma and grief research available from when these three authors began contributing to the literature, but all three are pioneers in this area of work. Denny and Goldberg are writers who have contributed specifically to grief among problem substance users, unlike much of the literature that incorporates trauma into the research. In addition, Denny is the first of only three researchers to date who have conducted a grief, intervention-based study with problem substance users. These citations were used because of their specific relevance to the topic.

CONCLUSION

This study has briefly outlined the necessity of grief therapy in addressing issues of grief and substance use. It is clear that there is a discrepancy in the number of agencies that provide grief therapy to substance users. By addressing grief in a therapy setting, before it develops into complications, the individual may experience a measure of stability in their recovery.

REFERENCES


APPENDIX 1

Does your agency provide grief counselling to clients___________________________
If the answer is yes please move on to the next questions
Is the grief counselling provided individual___________________________________
Is the grief counselling provided group based__________________________________
Is the grief counselling provided co-ed_______________________________________
How long are the sessions_________________________________________________
How often do the sessions run eg., once weekly, daily___________________________
How many sessions consist of a regular cycle__________________________________
Does your agency use volunteers/peers to help facilitate counselling________________
An international hub of culture, creativity and innovation, Montreal enjoys an enviable reputation as a modern and cutting edge North American centre. Shaped by nearly 375 years of exciting history, Montreal of today is a cultural beacon, a gourmet destination, a digital arts capital and a hotspot for design, architecture and fashion. It is a warm city with European flair that is expressed through diversity, culture, neighborhoods, its downtown area, businesses, fine cuisine and communities. Its dynamic and discovery-rich neighborhoods move to the beat of the joie de vivre and hospitality of its 4 million citizens, while its streets, parks and venues are annually host to its one-of-kind festivals, non-stop nightlife and array of events for all tastes and ages.

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This year we are excited to announce that ISAM will be having a joint scientific conference with CSAM-SMCA (Canadian Society of Addiction Medicine) in historic Montreal, Canada October 20-22, 2016 at the Marriott Chateau Champlain, rated four-diamond, that provides its guests with one of the most central locations of any downtown Montreal hotel close to downtown Montreal’s extraordinary boutiques, expansive shopping districts, eclectic restaurants and lively nightlife.

CONFIRMED PLENARY SPEAKERS INCLUDE:

• Dr. Nora Volkow, NIDA, on Drug Abuse & Addiction Research
• Dr. Pedro Ruiz, on Dual Diagnosis
• Dr. Amine Benyamina, on Genetics of Addiction
• Dr. Kathleen Brady, on PTSD
• Dr. Julie Bruneau, on Opiates
• Drs. Marc Galanter & Gregory Bunt, on Social Supports in Promoting Abstinence
• Dr. Harold Kalant, on Marihuana Regulation
• Dr. Jurgen Rehm, on Substances and Gambling Prevention & Policies
The one-day Fundamentals in Addiction Medicine course will be offered post-conference on Sunday Oct 23, 2016 and requires separate registration.

Registration as well as the Call for Abstracts (deadline for submission May 1, 2016) and for Symposium (deadline for submission April 1, 2016) is now open – please consult isamweb.org or csam-smca.org for more details.

We look forward to having you join us for what we feel will be a very educational event to those working in the field.

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ISAM’s Certification of Addiction Medicine is a credentialing process that assures the public that the holder has the pre-requisite knowledge competence to practice in that field within the confines of his/her medical license. The overall Objective is to meet the needs of an international membership of practicing physicians for standardized, valid and affordable credentialing in addiction medicine.

The examination is composed of 225 multiple choice questions testing knowledge and some clinical judgment. The exam will take 4½ hours and will be administered in two parts (2 hrs 15 min each) with a 15 min health break in between. The main reference book will be the Textbook of Addiction Treatment: International Perspectives (Springer Publishing www.Springer.com).

In 2016 the Exam is being offered in Montreal, Canada on October 19, 2016 the day before the start of the 2016 joint ISAM and CSAM-SMCA Scientific Conference at the Marriott Chateau Champlain.

Please see the ISAM webpages for details and application form: isamweb.org

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This Textbook, which collates the experience and wisdom of some 250 leaders in the field, from 30 countries, is promoted by the International Society of Addiction Medicine (ISAM), founded in 1999, which has as its principal mission the education of practitioners in Addiction Medicine and their trainees worldwide.

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