DALHOUSIE UNIVERSITY

Title: Exploring care of hospital inpatients with substance involvement

Abstract

INTRODUCTION: This article presents demographic and care factors related to persons who are substance-involved and require inpatient administration of intravenous antibiotics.

PURPOSE: This study was conducted to explore healthcare responses to support substance-involved inpatients through exploration of documented client outcomes, healthcare provider accounts, and representation of clients through documentation.

METHOD(S): A patient-oriented research team undertook this multiple methods, exploratory study. A health record review included people admitted to a complex continuing care hospital, within a 2-year period, for long-term antibiotic treatment and with concurrent illicit substance use. Correlations were examined between whether or not clients were discharged against medical advice (AMA) in relation to demographic, medical, and care-related factors. Qualitative analysis of narrative health record data was undertaken. Semi-structured interviews of healthcare providers and decision makers were conducted.

RESULTS: Twenty-five people met recruitment criteria for health record review; three people were admitted twice, resulting in 28 admissions. Interviews with seven healthcare providers and decision makers uncovered themes of professional liability, client autonomy, client responsibility, the "right" service, and burnout, hopelessness, and helplessness.

CONCLUSION: Recommended strategies to effectively respond to substance use among clients admitted for general medical concerns are: i) support inpatients with complex health needs, including substance use, ii) ensure substance use and addiction services are integrated into all inpatient practice areas, iii) support effective harm reduction practices for hospital-admitted

clients, and iv) develop robust policies and protocols to support healthcare providers and

inpatients.

Introduction

Although people who use substances are more likely to be admitted (1, 2), hospitals are generally "ill-prepared" to meet the complex needs of substance-involved inpatients (p. 1) (3). Research indicates health professionals often display unsympathetic and stigmatising attitudes toward substance-involved patients, who are labelled as "challenging, manipulative, drug-seeking, and demanding" (1). Health professionals report lower satisfaction, poor motivation, increased frustration, and more concerns for personal safety when working with this population (4, 5). In turn, substance-involved inpatients voice a lack of trust in healthcare providers, recounting being negatively judged, discarded, not listened to, or written off (6).

When health professionals attempt to understand patient experiences, patient outcomes improve; when the professional is distant, uncaring, or communicating poorly, patient healing is hindered (7). Poor healthcare experiences lead to avoidance or delay accessing services and premature discharge. Whereas 1-2% of all hospital discharges are designated 'against medical advice' (AMA) (8), this increases to 25-30% among substance-involved clients who inject (9). Clients who discharging AMA less likely to attend follow-up appointments, more likely to be readmitted within two weeks, more likely to leave AMA on subsequent admissions, and twice as likely to die (8, 10, 11). Clients reported being deterred from returning for care due to embarrassment or fear of derision (8). Clients voice desiring support that is welcoming, caring, understanding, nonjudgmental and helpful (12).

Despite most hospitals having zero tolerance policies (written or unwritten) restricting inpatient substance use, Grewal (2016) found that 43.9% of substance-involved clients have used while admitted to hospital. Reasons for using include withdrawal, boredom, sadness, loneliness and/or untreated pain (3). Efforts are made by inpatients to conceal use from healthcare providers

related to past experiences of stigma and to avoid hassle, reprimand, and/or discharge (3).

Healthcare providers enforce (formal or informal) expectations of abstinence using strategies,

such as immediate discharge, threats to discharge, increased monitoring, care contracts,

confiscating substances and equipment, reduction or termination of prescription medications,

reprimands, and loss of privileges (3).

A strong therapeutic alliance based on trust, compassion, and respect has been shown to

increase treatment engagement, reduce mental health symptom severity, and improve

functioning, community living skills, quality of life, and patient satisfaction (13). Conversely,

negative interactions with healthcare providers are associated with reduced utilization of

healthcare service and lower retention rates (9). Therapeutic alliance quality is reportedly

strengthened when healthcare providers work collaboratively, convey hope, share power, are

available, and are willing to stretch their role boundaries (13).

This study was conducted at two Canadian hospitals to explore healthcare responses to

support substance-involved inpatients admitted for intravenous antibiotic treatment. The research

team chose 'substance-involved' as a non-judgmental term indicating a person using a substance

in ways not formally prescribed by a healthcare provider. The term "response" encompasses

treatments, interventions, services design, harm reduction efforts, and other adaptations to

address substance use, including exclusionary processes that may penalise or limit substance-

involved clients from accessing certain resources.

The two hospitals (referred to as "Hospital 1" and "Hospital 2") were located in

Northwestern Ontario (NW ON), where complications associated with injection, such as abscess,

osteomyelitis, and infective endocarditis, are increasing (14, 15). In Ontario, a the average

number of hospital admissions for infective endocarditis increased from 13.4 per quarter in 2006

to 35.1 per quarter in 2015 (16). This study occurred within the context of the opioid crisis, which in Canada refers to i) iatrogenic dependence on prescribed opioids that meets addiction criteria, ii) increased distribution of illegal fentanyl and analogues, leading to unpredictable dose strength or adulteration of other drugs (17), and iii) regional and population-related patterns of intentional, illicit opioid use. Provincially, the opioid crisis is disproportionately worse in NW ON. From 2012-2016, Thunder Bay had the highest annualized rate of opioid-related deaths in all of ON (14.0 per 100,000 residents) (18), while in 2016, provincial rates were 6.2 per 100,000 (19). NW ON opioid-related hospital admissions and ED visits rates are 4th highest provincially and 7th highest nationally (20). Challenges to providing addiction services include remote communities, limited funding, lack of training for healthcare providers, intergenerational trauma, and family histories of addiction.

At the time of this study, healthcare providers in the community reported a perceived increase of clients with substance use complications admitted to hospital. Clients are first admitted to Hospital 1 for emergency and acute care services. If the person requires long-term antibiotic treatment [generally provided using PICC (peripherally inserted central catheter) lines] and is either unable to receive treatment in the community or is at high risk of using the PICC line to self-administer illicit substances, then a referral is made to Hospital 2. On admission to Hospital 2, clients are provided general information about admission and client rights (e.g., quality care) and responsibilities (e.g., to show respect). A meeting with the physician, sometime days later, establishes off-unit privileges. Illicit substances and paraphernalia are not permitted on the premises of either hospital. Neither hospital has a designated program to offer this service and the care plan is centred on scheduled medication administration.

Despite Canada's international leadership in community-based harm reduction, the body of knowledge supporting effective responses for substance-involved inpatients for medical and/or rehabilitation interventions is emergent. This article shares findings about healthcare responses to support substance-involved inpatients admitted to a medically complex care unit for intravenous antibiotic treatment, through exploration of documented client outcomes, healthcare provider accounts, and representation of clients in documentation.

Ethics approval

Research ethics approval was received from both hospitals and Dalhousie University. Lakehead University was precluded from a separate approval due to a memorandum of understanding with Hospital 1. Given 19.8% of the population in this region identify as Indigenous (21), it was expected some clients would, circumstantially, be First Nations or Métis. Recognizing that Indigenous people experience increased burden of ill health across most diseases, we understood intersectional experiences can impact outcomes (e.g., housing security, physical health status, quality of therapeutic alliance); however, we did not presume that substance use is unique or distinct from other health disparities. We deliberated over ethical considerations of Indigenous peoples' ownership, control, access, and protection of knowledge; however, neither hospital routinely collects information about ethnicity or band membership and there is no Indigenous ethics board in NW ON. As such, ethnicity and band membership are not reported in this study.

Methods

The research team consisted of a patient researcher, three healthcare providers (two registered nurses and a registered social worker), and two university-based health researchers. A multiple methods study was designed through collaboration and consensus. An interpretative approach integrated analysis across quantitative (demographics; outcomes) and qualitative (interview;

narrative health record) data to facilitate expansion of analysis, where breadth and range of knowledge is extended through the implementation of more than one method, integrating different ways of understanding a phenomenon (22).

Data collection

A health record review of routinely collected data was conducted including all clients identified as substance-involved and admitted to a medically complex care unit at Hospital 2 (transferred from Hospital 1) for intravenous antibiotic treatment for infections on or after April 1, 2016 and discharged by August 31, 2018. Semi-structured interviews were conducted with key healthcare providers and decisions makers at both hospitals.

Health record review

Data collected occurred onsite at Hospital 1; electronic health records (EHRs) are shared across the two hospitals. A Hospital 2 health records department staff member identified all clients admitted for long-term intravenous antibiotic treatment and indication of concurrent substance use within the identified timeframe to generate a preliminary list of clients. Subsequently, one client was removed from the dataset, as there was no documented history of substance use. The lead author conducted data extraction and de-identification to maintain privacy and confidentiality. A research assistant (RA) conducted data cleaning and preliminary analysis. The lead author extracted demographic, medical, and care-related data to an Excel table.

The EHR data extraction included: (a) Demographic factors (i.e., home community, age, sex); (b) Medical factors (i.e., severity of infection throughout admission, other existing physical and mental health conditions, number of previous admissions for related concerns, treatment prior to admission, follow up plans for discharge); (c) Care-related factors [i.e., length of stay, discharge against medical advice, code yellow (missing client), incident reports, cultural or

spiritual service provision, services accessed or declined while admitted]; and, (d) Documented subjective reports of client interpersonal characteristics (e.g., pleasant, irritable) or behaviours (e.g., compliance, aggression). Inpatient records were further assessed to determine if services related to substance use were accessed (e.g., inpatient or outpatient counselling, relapse prevention, peer support, Alcoholics Anonymous or Narcotics Anonymous).

Interviews

Healthcare provider and decision maker interviews explored personal experiences and perspectives and factors informing healthcare responses. Blending purposive and convenience samples, the research team identified key referring and admitting physicians, frontline staff, and managers in both hospitals departments serving this client population. Two healthcare provider research team members undertook recruitment primarily through direct email, making up to three attempts to contact prospective interviewees. The invitation requested prospective interviewees contact the first author to protect their privacy, since only the first author was aware of confirmed interviewee identities. The first author did not reside local to the hospitals and had never worked at either hospital, reducing conflict of interest risk.

Consent forms were emailed to interviewees for review prior to interviews and key points were discussed preceding interviews. Verbal and written consent was obtained for each interviewee. All interviews, typically lasting 45 minutes, were audio-recorded with interviewees' consent. The interview guide included questions about 1) the interviewee's role in decision-making regarding care decisions for substance-involved clients who require antibiotic treatment administration, 2) factors influencing outpatient or inpatient treatment decisions, 3) factors to consider regarding the most appropriate care or services, 4) treatment processes, and 5) suggested changes to enhance experiences and outcomes.

Analysis

All researchers collaborated by phone, email, and in-person to complete the data analysis.

Health record review

This was an exploratory method designed to provide demographic insights into the population admitted to a medical rehabilitation hospital for long-term antibiotic treatment. Early in the analysis, it became evident that more than 50% of clients at Hospital 2 discharged AMA. As such, analysis integrated a comparison between these two groups. IBM SPSS Statistics 25 software was used for quantitative data analysis of the health records. Variables were nominally coded (e.g., 0 = regular discharge, 1 = discharged AMA; 0 = yes, 1 = no). Using independent samples t-tests, correlations were examined between whether or not clients were discharged AMA in relation to demographic, medical, and care-related factors.

Narrative health record data was analyzed qualitatively following initial qualitative analysis of interviews and quantitative analysis of health records. Data were interpreted in relation to the interviews' thematic analysis, which produced broadened themes and deeper analysis. Constant comparison occurred through immersion in individual health records and systematic examination of data provided by interviewees and examination of how these sources differed or aligned in themes (23).

Interviews

Interviews were conducted early in 2019. After interviews were transcribed and de-identified by an RA, the RA and first author conducted a first pass, broad thematic analysis. This organization of data served to further protect interviewees' privacy and confidentiality. This stage involved preliminary thematic analysis of interviews through coding, mapping code hierarchies, and memoing. The full team then reviewed and revised the themes through consensus. Concept

mapping was used to clarify team members' interpretations. Each author brought unique perspectives, balancing potential biases associated with protecting institutions' and co-workers' reputations, interpreting client experiences, and identifying marginalizing processes, and analyzing ethical practices.

Following data analysis, a summary of findings including only their own quotations was emailed to each interviewee for member checking. Interviewees were asked to comment on their level of agreement with the themes identified and verify quoted statements' accuracy. Interviewees were offered the opportunity to request changes and provide clarification by phone or email within six weeks, with one reminder email. Interviewees identified no discrepancies. Quotations are not included from one interviewee who did not respond to requests for quotation permission.

Results

Health record review

Twenty-five people were identified as being admitted on or after April 1, 2016 and discharged by August 31, 2018. Within this period, three people were admitted twice, resulting in 28 total admissions. Primary referring diagnoses were pulmonary emboli, abscess, sepsis, osteomyelitis, cellulitis, endocarditis, necrotising pneumonia, and sacroiliitis.

All clients had previous Hospital 1 contact, generally through emergency services, and were previously known to be substance-involved. There appeared to be no delays in investigating underlying causes of clients' presenting concerns. All client health records recorded English as the primary language. Clients at both hospitals were routinely referred to social work, occupational therapy, physical therapy, registered dietician, and spiritual support. Other referrals included speech language pathology and psychiatry. Clients were offered smoking cessation, but

no other addiction-related services. Social work employees offered support to complete applications to addiction treatment programs, apply for employment benefits, and/or secure housing.

Demographics for the 25 people included in the health record review appear in Table 1. Clients, more than half under 40 years of age, were admitted to hospital for an average of two months. Among clients with multiple admissions within the data collection timeframe, one person was discharged AMA twice and two people were discharged AMA once (completing one admission without AMA) – these three people are included in the "Discharged AMA" Tables datasets. Of the thirteen clients discharged AMA, five (38%) completed the process with a healthcare provider and eight (62%) were discharged after being missing for a period of time or not returning from a leave of absence (LOA). Among all, two were discharged within a day of expected discharge.

[INSERT TABLE 1 HERE]

Unsurprisingly, results indicate that length of stay (in days) was longer among clients who did not discharge AMA, as shown in Table 2. This data refers to n=28 admissions.

[INSERT TABLE 2 HERE]

Length of admission was analysed in comparison to whether or not clients were discharged AMA. Clients who were not discharged AMA had a significantly longer stay than those who were discharged AMA at Hospital 1 and 2 combined ($p<0.015$) and Hospital 1 ($p<0.004$), but not at Hospital 2 ($p<0.125$). None of the demographic factors showed significant correlations to whether or not a client discharged AMA.

[INSERT FIGURE 1 HERE]

Table 3 outlines care-related factors. It was difficult to determine accurately the number of days clients were restricted from leaving the unit or hospital, and the frequency of suspected or confirmed client substance use. High PICC line monitoring showed few reports of occluded ports or foreign substances in the line. Whether or not a code yellow was issued at either Hospital 1 ($p<0.047$) or Hospital 2 ($p<0.011$) was significantly correlated with whether or not a person was discharged AMA.

Interpretation of care responses and experiences

Analysis integrating narrative health record data of the 25 clients and interview data uncovered five themes: client autonomy, professional liability, rule adherence, enforcement, and burnout, hopelessness, and helplessness. Three decision-makers (e.g., managers) and four frontline staff (e.g., nurses) were interviewed. Research team members involved in recruitment had stronger collegial relationships at Hospital 2; as such, six healthcare providers and decision-makers were recruited from Hospital 2 and one from Hospital 1. Individual roles are not identified to maintain confidentiality; however, we did not interview any physicians. Interviewee quotes are marked with an individualised identifier (i.e., Interviewee A). All other quotes are drawn directly from client health records and labelled with an individual health record identifier (i.e., HR1); identification of healthcare providers who documented was not collected as it was not within the scope of this study to explore differences between providers.

Each hospital has their own documentation format and process, including routine details such as vital sign readings, assessment of risk, and "behaviour." It should be noted, narrative documentation tended to be "by exception," instigated by client-related concerns, a client's visitor, and/or an interaction between the client and another person (e.g., a staff member, visitor, and/or another inpatient). As such, documentation tended to capture "non-compliance" and

dissonant instances. Documentation practices appeared to capture healthcare provider

interpretations of clients' frustrations and feelings of boredom, loneliness, anxiousness, sadness,

and a lack of support. Client statements of frustration were included, such as "client said she has

been 'manipulated by staff'" (HR1) and "Client ++ angry stating that no one has helped her since

admission because she is an addict" (HR2). Although most routine documentation client

descriptors were 'pleasant and cooperative,' particularly at Hospital 1, many descriptions were

less positive. The majority of documented information addressed non-compliance issues or

disputes with staff, which tended to portray clients as argumentative and disruptive, such as, "Pt

deceptive and manipulative" (HR3), "whining about blood work and vitals" (HR4), "Pt. +

needy/chatty" (HR4), "child like behaviours" (HR4) and "problems with compliance with any

form of intervention" (HR5). Narrative documentation addressed both sides of dissonance (i.e.,

client and healthcare provider) in relation to particular situations, integrating quotes of what was

purportedly said by others (i.e., clients).

Client autonomy

There appears to be conflict between hospital protocols regarding client compliance and clients'

personal autonomy expectations. Healthcare providers described feeling largely responsible for

clients' welfare. Accordingly, client autonomy to leave the hospital or to use substances was

often limited:

> [Clients are] coming into a setting where they're now being dictated to and being told
>
> what they can and can't do, is a huge issue for them, that whole control is gone from
>
> them… we've got people telling them when they're gonna eat, when they're gonna get
>
> their medications, when they have to get ready in the morning… [Interviewee C]

With a two-month average admission length, inpatient personal relationships appeared to form (or previously exist) in other hospital areas, resulting in high off-unit socialisation levels. Documentation indicated that leaving the unit made it difficult for healthcare providers to know where clients were at any given time.

Documented statements indicate some patronising and infantilising perceptions; for instance, some clients could leave the hospital only when accompanied by a "responsible adult" (HR2). Another client who was being monitored for concerns about tampering with the PICC line was documented to be " ++ upset stating she 'isn't a baby' and that she 'doesn't need to be watched'" (HR1).

Review of health records revealed that beyond daily scheduled intravenous antibiotics, clients accessed few services. Clients often voiced desires to carry on various responsibilities such as child care, personal relationships, and home maintenance.

Autonomy for choices around admission and discharge appeared to be an area of tension for some clients. For instance, when medically recommended a client's admission be extended, it was documented, "[client] doesn't think she can take more. Discussed wanted to get home and thinking that leaving against medical advice might be her only option" (HR1); within four days she did not return from a LOA and was discharged AMA.

Professional liability

Interviews unveiled healthcare providers felt a heavy sense of responsible for the safety, well-being, and indeed lives of others. This responsibility extended beyond a sense of duty for care to one of professional liability. For instance, not knowing the whereabouts of a client in sub-zero weather elicited worries about client safety; simultaneously, health providers felt positioned as liable if harm came to a client under their care. Healthcare providers indicated that a lack of

hospital policy and procedures to inform consistent responses exacerbated feeling of uncertainty and high perception of personal liability.

This contributed to a complex dual tension between compassion and concern for clients and anxiety about implications for ones' professional standing. The possibility of a client using an illicit substance when off the unit was a primary concern because illicit substances can interact unpredictably with prescribed medication, which healthcare providers are administering and monitoring for adverse effects. Potential for dangerous interactions, and the potential for death, prompted increased activity monitoring of clients and high vigilance for potential substance use. Interviewees also expressed concerns and liability for other inpatients (admitted for medical rehabilitation) who share rooms or reside on the same unit, visitors, and other staff, often in relation to "dirty needles," client intoxication, security of personal belongings, and visitor intoxication and/or onsite substance use. In this context, it appeared likely clients learned to conceal use. In turn, healthcare providers voiced a lack of trust in clients to report substance use and often relied on drug testing to confirm suspicions. Refusal to consent to providing a urine sample appeared to contribute to increased healthcare provider distrust.

Professional liability concerns appeared to be exacerbated by a lack of trust between the client and healthcare provider. One interviewee noted, "I think there's not a lot of trust usually going back and forth, which is understandable" [Interviewee B]. It appeared that abstinence is expected of hospital-admitted clients, and there was little to no documentation about harm reduction strategies integrated into care plans. To manage risk, clients were given warnings and efforts were made to restrict LOAs and permission to leave the unit. Health records and interviews indicated that staff viewed permission to leave the unit and physician-granted LOAs as 'privileges' subject to restriction as a penalty for non-compliance (such as suspected substance

use, positive drug screen, evidence of PICC lines 'tampering,' and not returning to the hospital at a designated time), yet clients appeared to view these as rights. One client asked, "Why no LOA's? … I have a life outside of here" (HR2). Strategies to protect clients, compounded by fears around professional liability, appeared to contribute to complex, emotional experiences and interactions.

Rule adherence

Interviews revealed a perception that healthcare providers and the client shared client health responsibility. There was also an expectation that clients fulfil a 'bargain' associated with admission, which generally included being readily available for medication administration, conform to hospital routines (e.g., mealtimes, sleep patterns), consent to medical procedures (e.g., urine screens), inform staff of whereabouts, abstain from non-prescribed substance use (except tobacco), and comply with prescribed medication regimes.

Medication schedules proved frustrating for healthcare providers when clients were not on the unit at regular times. The health records reported numerous instances of clients being 'reminded' to be on the unit at specific times. As well, medications were administered on a set schedule of other nursing duties, often during early mornings, which disrupted clients' sleep. When woken, several clients were documented to 'cuss,' be 'angry,' 'refuse' morning cares, and ask not to be waken again.

Interviewees voiced an expectation of evidence that clients were 'helping themselves' by abstaining from substance use. As one interviewee said, "I wish the best, like I want them to get rehabilitated, but it's like they have to want it" [Interviewee A]. When clients were suspected of using substances, they typically faced restrictions limiting their permission (or 'privilege') to leave the hospital grounds. One note explained, *"Upon hearing that [client] was potentially*

selling [their] drugs and abusing [their] intravenous line, it was felt that [the client] was abusing some of [their] privileges about going outside" (HR6). Healthcare staff were expected to "Encourage [client] to not jeopardize the privileges [they] are given" (HR7). At times, following a code yellow or unauthorised LOA, there were concerns the client may have used illicit substances and the client's prescription narcotics were withheld. This measure sometimes led to client anger and frustration, with clients documented as insisting they could easily access these same narcotics near hospital grounds. Clients were sometimes required to provide a urine sample, although they did not always do so despite numerous documented reminders.

In many cases, restrictions did not seem to deter clients from leaving the hospital or using substances. One discharge note read that a client had two urine drug screens positive for opiates and cocaine, with one of these also being positive for cannabinoids: "The patient actually had no off-unit privileges, and was not allowed on LOAs, but despite this continued to leave the unit with no way for [the] hospital to enforce this" (HR8). This quotation demonstrates the tensions in enforcing compliance, including abstinence, during admission. Clients who chose to use substances did so regardless of implicitly-enforced expectations of abstinence. For instance, "Writer stated that pt [patient] may need to do a urine sample drug screen tomorrow, and pt stated that's ok its gonna come back dirty it always will come back positive" (HR9) Another note described a client response to numerous urine sample requests: "pt had wrote 'cocaine' onto container. Pt also wrote 'What [MD] wants to see' on container" (HR8). This seems to indicate a somewhat confrontational, if not adversarial, relationship.

Clients also contravened tacit rules or expectations in other areas of care, such as starting and disconnecting their own intravenous antibiotic, not taking prescribed medications, or taking medication outside prescribed schedules. If a client was found to be refraining from use of a

prescription medication (including opioids, like methadone), the response was to explain the medication's importance and monitor consumption compliance. There was no indication of conversations between healthcare providers and clients to determine the appropriateness or client's desire for this medication, or potential pressures or incentives for diversion. Clients sometimes reported being able to illicitly acquire the same medication being prescribed and administered, confronting the staff with questions about the problematic nature of personal autonomy to determine optimal dose and frequency of use.

Enforcement

It appeared through the health record review that clients tend to be less closely supervised at Hospital 1. This might be related to illness acuity preventing clients from frequently leaving the unit and life-threatening conditions prioritizing other clients. At Hospital 2, clients' activities seemed to be highly supervised and other hospital staff and security informed unit staff about observed off-unit client actions.

Suspected transgressions led to further client privilege restrictions and increased activity monitoring, reflected in care plan documentation to "Continue to monitor client for suspicious behaviour or signs of drug use" (HR7). Some clients were reported to leave the unit or hospital regularly despite restrictions and continued to access, distribute, and consume substances (e.g., "[name] would often leave the unit on an unauthorized leave of absence coming back appearing intoxicated or high") (HR9). Yet, being restricted from basic human rights of self-determination and community mobility allowing family and friend visits, caring for children, parents, and pets, and undertaking other daily activities was experienced as restrictive, punitive, and reminiscent of imprisonment – as one client noted, "it's easier to get out of jail than it is here" (HR10).

Healthcare provider roles seemed to overlap with law enforcement roles. For instance, one note following a client's discharge stated, "While cleaning pt room, there were 30 syringes, a blow torch, crack pipes, burnt spoons, spoon rest, alcohol swabs, tourniquet, small bag of white substance, wood stirring sticks, steel wool. Police said there was not enough of the drug for a charge and to dispose of it" (HR3). This note indicates the healthcare provider called police to determine whether charges should be laid. Another instance described,

> "pt was in bathroom for an extended period of time. When she came out of the bathroom she handed boyfriend bag, Writer went into the bathroom where the pt has a [container] and found drug paraphernalia… pt gave consent to take the bag … pt was asked by the supervisor to go through the bag… the bag was confiscated... Following this the supervisor and security searched the pts room as per [most responsible physician] order; needles, drug capsules and drug paraphernalia was found" (HR11)

Role blurring was more evident in this situation, as hospital staff were involved in concealed personal property investigation.

At the same time, interviewees perceived no real consequences for breaking 'rules,' as clients required antibiotics for life-threatening illnesses and discharge for reasons of non-compliance was neither reasonable nor ethical. In a context of perceived competition for hospital beds, questions were raised about responding to clients viewed as not fully 'participating' in prescribed antibiotic treatment protocols.

Burnout, hopelessness, helplessness

Interviews revealed employee burnout, hopelessness, helplessness, a sense of lack of control, and uncertainty. Interviewees described that nurses in particular faced challenges such as client intoxication, code blue (medical emergency such as cardiac or respiratory arrest), visitor

disruption, clients declining certain medications or being woken for medication administration, clients leaving the hospital and missing medication doses, clients frustrated and bored with nothing to do on the unit, clients engaged in selling and buying substances, clients agitated and yelling at nurses, and mediating room allocation and roommate disputes.

It was acknowledged that neither hospital had a specific program serving substance-involved clients for long-term intravenous antibiotic treatment. Participants stated there is no 'right' community or institutional service supporting this population to receive this treatment. Admission offered meals, shelter, and medical treatment; however, clients were not in need of Hospital 2's medical rehabilitation services and were generally independent in activities of daily living. While admitted, clients were perceived to be in a 'limbo' state, receiving neither psychosocial nor addiction counselling. One interviewee described, "I always joke about the gowns - that it's one-size-fits-nobody - and sometimes it feels like lots of our programs are the same" [Interviewee B].

A sense of hopelessness emerged from recognizing that inadequate resources exist to respond to health determinants underlying substance use.

I think it just seems pointless sometimes because all we do is fix the infection…
it doesn't feel like we address anything else, any of the social factors … I think we do
judge because it seems self-inflicted and because it seems, it seems pointless, it seems
like, you know emptying a bathtub with a teaspoon knowing that the water's still running.
[Interviewee B]

Societal understandings to substance use were evident, as many of the recommendations related to health promotion and prevention outside the hospital to target poverty, trauma, and availability of community addiction services. Available services were viewed as insufficient to

address long-term, "big picture" client needs, which contribute to healthcare providers' sense of burnout:

> It's easy to get frustrated that you're spending so much time trying to keep someone safe but you know you're just doing it for the moment… you're pretty confident that you're changing nothing in the big picture of this person's life … I do really try to treat every human like a human who deserves my respect and compassion but I know that definitely when resources are structurally thin, that frustration probably shows. [Interviewee B]

Health record review and interviews showed managers and supervisors fostered collegial relationships and provided institutional support to frontline staff, with managers and/or physicians leading decision making. Recommendations for improvement varied from developing explicit protocols or pathways within the current context, integrating addiction services into the current setting, and establishing a non-hospital setting to serve substance-involved clients requiring intravenous antibiotic treatment. Interviewees, when informed about other hospitals' harm reduction strategies, were open to these alternatives. One interviewee observed, "maybe they should be allowed to use [substances] and we provide a safe environment for that while they're going through their treatment." [Interviewee C].

Discussion

As needs to support substance-involved inpatients with life threatening infections have increased, hospitals rapidly responded, utilizing settings not originally designed for this area of care. Hospitals' involvement in this study reflects institutional commitment toward enhancing services for clients and supporting frontline staff — a commendable step towards quality improvement. The results align closely with the growing body of knowledge about healthcare responses for

substance-involved inpatients and challenges experienced by clients and staff. Increasingly, responsibilities of hospitals to enhance responses is supported in practice and evidence.

Retention in services is an essential aspect of care, particularly for antibiotic treatment. Exceeding previous findings (9), a full 50% of clients in this study were discharged AMA. Studies suggest high rates of discharge AMA among substance-involved clients are associated with experiences of stigma and discrimination, imposed negative consequences for substance use, enforced cessation, negative health care interactions, miscommunication, healthcare provider distrust and belief that clients lack insight, financial, personal or family-related concerns, and dissatisfaction with services (8, 10, 17), deepening clients' distrust of the healthcare system (10). The results of this study indeed demonstrated vigilance in monitoring for abstinence, punitive responses to suspected substance use, mutual lack of trust, and constraints limiting clients from fulfilling personal needs outside the hospital.

Through review of client health records and interviews with healthcare providers and decision-makers, opportunities to enhance responses to support substance-involved inpatients were identified, including integration of services to respond to substance use, implementation of harm reduction principles, and developing policies and protocols to clearly communicate expectations and support clients and healthcare providers.

Supporting substance-involved inpatients

Allocation of resources to support the complex health needs of inpatients, including substance use, during admission may improve health outcomes and reduce costs in the long-term (1).

Results revealed an average two-months admission, with little routine healthcare provision outside medication administration. Though is not uncommon that hospitals are "overlooked as a setting ripe for the delivery of specialized addiction care" (p. 251) (24), this

indicates a missed opportunity. Research shows that 61.6% of clients who identified as using illicit drugs when admitted to hospital report an interest in reducing use or quitting (25). Inpatient addiction consultation service for substance-involved inpatients effectively reduce addiction severity and increase number of days of abstinence (2). Suzuki (26) found a majority of clients admitted for infective endocarditis, related to intravenous drug use, accepted and received medications for addiction treatment in response to substance use. In Canada, few hospitals (e.g., St. Paul's Hospital in Vancouver; Royal Alexander Hospital in Edmonton) have integrated substance use and addiction into medical care services. Clients in our study were offered referrals to addiction treatment centres, but no onsite addictions counselling was provided, either individually or in groups. The Community Transition Care Team in Vancouver is an alternative model. It is an acute care clinic in a residential setting to provide transitional care and intravenous antibiotic therapy following hospital discharge (27).

When admitted for long-term antibiotic treatment, otherwise autonomous adults are disconnected from their lives for months at a time. Abstinence models of care reinforce concerns about illicit substance use, so inpatients are sometimes confined to a single building or unit affording little meaningful activity. Experiences of "hospital fatigue" (8) render clients' increasing desire for autonomy as reasonable. Strategies to improve prolonged admissions in other settings include: organized outings, involvement in hobbies, connection with social supports, access to a private room, and staff rotation to decrease burnout (10).

Furthermore, as observed by interviewees, existing hospitals programs are often not equipped to address complex factors underlying substance use, such as poverty, unstable housing, trauma, discrimination, and mental health comorbidities (10, 11). Clients in the study were routinely referred to allied healthcare services with various degrees of engagement, but

interviewees indicated inadequate resources to support social needs, leaving significant client needs unmet, was a major source of feelings of hopelessness and helplessness in their roles as healthcare providers.

Implementation of harm reduction principles

During our interviews, opportunities for harm reduction responses in the hospital were not mentioned by interviewees, likely because abstinence approaches are deeply entrenched in day to day practices and decision-making. When introduced by the interviewer, harm reduction was received favourably as a logical and pragmatic response. Across Canada, healthcare responses to support substance-involved inpatients varies widely, between hospitals and between healthcare providers, leading to inequities in access to optimal care. Based on the findings of this study and building on existing literature, hospitals ought to formally integrate harm reduction through policies and protocols to enhance equitable, non-discriminatory services that enhance engagement and improve the therapeutic alliance.

Expectations that all clients to refrain using while admitted for an acute illness at a time of stress, while in an unfamiliar setting, and away from social supports is "unrealistic" (11), poses a significant barrier to care (10), and threatens the quality of the therapeutic alliance. During admission, it is likely clients' overall substance use is a fraction of what it was preceding admission, yet instead of recognizing these successes, clients are scrutinized and penalised for not maintaining complete abstinence. Faced with expectations of abstinence and punitive responses to suspected use, clients take steps to conceal use, which can increase health risks and contribute to distrust in the therapeutic relationship (10, 28). This distrust was evident in the interviews and health records. Substance use is often entangled with implicit and unintentional judgment of morality and ethics, impacting personal evaluation about who is deserving of health

care and access to health resources. Such experiences of stigma, judgement, and undertreatment of pain and withdrawal symptoms contributes to a sense that hospitals are a place of risk for substance-involved persons, rather than one of healing (10, 29). Of note, clients perceive hospitals as similar to prison, with nurses acting as "cops" (29) due to intense behavioural monitoring, and physical searches by security guards. Unfortunately, perceived judgemental attitudes towards clients is shown to dissuade them from accessing health care services and lead to discharge against medical advice (29).

Despite Canada's standing as an international leader in harm reduction, research indicates inpatients are *restricted* from effective community-based harm reduction practices and safer injection equipment is often confiscation (29). This leads to re-using syringes, using syringes of unknown origin, and injecting in private settings (29). Recent guidelines recommend that inpatients who use intravenous substances be provided sterile supplies for drug consumption, personal sharps containers, naloxone kits, overdose prevention education, and onsite access to addiction services (10, 28). Previous findings indicate the most pragmatic approaches to reducing self-administered substance use through a PICC line (a source of concern for staff) is to ensure management of pain, withdrawal and cravings and provide access to an onsite supervised consumption site (10, 28).

Harm reduction practices improve communication and trust by alleviating occurrences of inpatient concealment of substance use and healthcare provider hypervigilant surveillance (6). Hospitals are ideal settings for early identification of substance use, engaging clients in services, and/or initiating pharmaceutical treatment for substance dependence (30-32). It is advised that community resource connections be made to transition care out of the hospital (33, 34) and reduce relapse risk when returning to ones' home community (35).

Institutional responsibilities and responses

Based on our findings, areas for improvement in institutional responses include honouring autonomy of inpatients, establishing clear expectations for healthcare providers and inpatients, supporting professional development, and modifying documentation approaches.

Tensions exist between healthcare providers' ethical principle of beneficence (do good) and non-maleficence (do no harm) and a duty to respect client autonomy and rights to self-determination (36). Once voluntarily admitted to hospital, clients are expected to follow hospital 'rules' and thereby lose power and autonomy in ways that are enforceable (e.g., policies prohibiting smoking or drug use on the premises; noise restrictions) and that may be complexly related to instances of medical non-compliance, leaving the ward without signing out, or discharging against medical advice. In such settings, it seems clients increasingly attempt to enact power in subtle ways. 'Non-compliant' actions, such as signing out for LOA despite not having these privileges, 'refusing' vitals, 'refusing' to wake up, 'refusing' medications, 'demanding' medications, and 'refusing' urine screens, could be interpreted as clients attempting to regain power and autonomy. Starting and disconnecting one's own intravenous antibiotic or disconnecting one's PICC line is particularly bold, as it oversteps a practice expertise associated with training and education. Concerns about client compliance (or 'autonomy') of *not* taking prescribed medications is a topic that emerged, which warrants exploration. Since diversion is a concern if the medication is unknowingly being used by another person, nurses are again positioned to police client actions, potentially overshadowing opportunities to hear client perspectives about medication efficacy.

Select procedural changes could decrease dissonance in the therapeutic relationship. For instance, clients transferring from Hospital 1 to Hospital 2 experience process changes and

restrictions regarding leaving the unit, the building, and hospital grounds. LOAs are sometimes not permitted or remain unresolved for several days. One alternative is to resolve permissions on the first day of admission. It is possible that clients perceive permission to leave the unit and hospital property as a sign of mistrust, rather than a 'privilege' for compliance. It is also advised that medication doses be timed to coincide with clients' sleep schedules (10). Involving patient advocates and peer support may enhance understanding and increase credibility of the service (12). Since code yellow events were correlated with discharge AMA, code yellows might serve as opportunities to collaborate with clients to identify their perceived barriers to retention and modify responses to better meet their needs. The results also showed a number of people discharged AMA after not returning to the unit. While some clients will be discharged AMA, it is ideal to respectfully complete this progress together, ensuring adequate community supports are in place and mitigating client reluctance to seek care in the future.

Since healthcare providers and hospitals share clients' well-being responsibility, there are legitimate concerns about potential medication interactions with illicit substances and clients' safety when they are off hospital grounds. Opioids, in particular, are thought to have a high propensity for medication interactions, safety issues, and misuse. Healthcare providers are encouraged to be "vigilant to signs of aberrant behavior" toward seemingly compliant clients and "known or suspected drug abuser[s]" (37). It is unsurprising, then, that clients perceive a dissonance in the therapeutic alliance and experience stigma and discrimination (38-40). Benefits may be found in re-examining risk assumptions and perceptions, and in increasing genuine client involvement decision-making. Unfortunately, the abstinence model's implicit predominance dissuades clients from disclosing potentially useful information. Substance use is 'the elephant in

the room' wherein clients are perceived as secretive and manipulative, with nursing staff positioned as suspicious and non-trusting.

It is beyond time hospital policies and protocols reflect substance use as a responsibility of healthcare responses across all practice areas, guided by the principles that "drug use is a normal action that inevitably occurs in modern society, and therefore the users should be treated fairly as sovereign citizens and their possible problems should be tackled pragmatically on the basis of scientific knowledge" (p. 86) (41). To be effective, formal policies supporting effective responses to care for substance-involved inpatients are recommended that clearly communicate expectations of staff, are reinforced during employee orientation, are supported through mandatory continuing education, are modelled by senior staff, and are enforced through institutional standards of practice (11). It is essential to involve people with lived experience in decision-making processes such as service design, program evaluation, and staff education (10). Ensuring organisational protocols and policies can alleviate healthcare providers' concerns for professional liability.

Hospitals are responsible for offering training and mentorship to staff, yet few healthcare providers in acute care or continuing care settings have adequate training in the management of substance use (10, 11, 24). Findings suggest that providing education to hospital staff to enhance knowledge about mental health, substance use, and cultural competency may improve therapeutic outcomes (42, 43).

Finally, review of documentation uncovered a potential need for hospitals to develop policies that promote destigmatizing language, reinforcing rights of autonomy in documentation [i.e., "opted not to" rather than "non-adherent" or "non-compliant" (10)]. It is noted, "the power relationship is skewed in favor of the health care provider" (p. 133) (6), which is enacted through

documentation in gradual, "small steps and reconstructions ordinary moments in the ongoing work" (p. 525) (44). Clients are 'constituted' through healthcare providers' choices of what and how to report details (44, 45). By adopting documentation practices of charting by exception — with exceptions relating to occurrences considered by staff as problematic and conveying therapeutic dissonance — positive occurrences and depictions of clients are largely rendered invisible. As sites of communication, this results in almost exclusively negative portrayals of the client that influences the perspectives of readers and shapes future staff and healthcare system responses. Changes could involve routine documentation practices that more accurately reflect the range of (pleasant and non-pleasant) therapeutic interactions experienced through the day, re-enforce non-judgemental and non-stigmatising language, and convey the compassionate and nuanced understandings of complex lived experiences of clients that were reflected through interviews.

It is important to note that healthcare providers express a desire to provide clients with the best possible care, believing that continued substance involvement poses risk to health and well-being, while adhering to antibiotics dose schedules is essential treatment for life-threatening conditions. While can be frustrating and disheartening when clients are perceived to make decisions negatively impacting their health and well-being and when repeatedly encountering conflict in the workplace (10), there is keen interest in professional development opportunities and policy changes to position healthcare providers to optimally deliver compassionate and effective care.

Limitations

A number of complications impacted the study, posing a range of limitations. A potential limitation is the small sample size of interviewees, particularly Hospital 1. Ethics approval was

attained for certain team members to invite key knowledge holders; some discomfort was voiced about approaching some colleagues, particularly physicians viewed in positions of authority. There is potential that other healthcare providers would have represented a broader range of perspectives. Differences in documentation practices across hospitals limited some comparisons and charting by exception limited the depth and breadth of data available. Direct client and family voices are also missing perspectives in this study. While healthcare providers recognized competing interests and demonstrated commendable efforts to understand how clients might view certain situations, clients are better suited to share knowledge about lived experience.

Conclusion

This study contributes to the growing body of literature regarding expectations and responsibilities for hospitals to effectively support the needs of substance-involved clients. We found clients admitted to hospital for intravenous antibiotic treatment discharged AMA at a rate of 50%. Expectations of abstinence pervaded healthcare interactions, with protocols implemented to deter use through restricting client autonomy. Client frustration with monitoring, and restrictions, compounded by hospital fatigue, was evident. To address this, clients' increased involvement in decision-making is also warranted. Focus groups with previously admitted clients may further understanding and facilitate relationships that meet the client population, healthcare providers, institution, and regulatory bodies' needs and expectations. Further exploration of the discursive ways in which documentation occurs, how clients are constituted, and potential for bias, stigma, and judgment to be (re)produced is warranted.

Implementing harm reduction principles and protocols within Canadian hospital policies may improve retention and compliance with medical care, satisfy healthcare providers' requests for clarity and consistency, improve the therapeutic alliance, reduce punitive responses to clients'

autonomy, and improve safety of clients. Given the high prevalence of substance use and

addiction among clients admitted for general medical concerns, it is timely to consider strategies

to i) support inpatients with complex health needs, including substance use, ii) ensure substance

use and addiction services are integrated into all inpatient practice areas, iii) support effective

harm reduction practices for hospital-admitted clients, and iv) develop robust policies and

protocols to support healthcare providers and inpatients.

References

1.   Carusone SC, Guta A, Robinson S, Tan D, Cooper C, de Prinse K, et al. "Maybe if I stop the drugs, then maybe they'd care?"—hospital care experiences of people who use drugs. Harm Reduction Journal. 2019;16(1).

2.   Wakeman S, Metlay J, Chang Y, Herman G, Rigotti N. Inpatient addiction consultation for hospitalized patients increases post-discharge abstinence and reduces addiction severity. Journal of General Internal Medicine. 2017;32(8):909-16.

3.   Strike C, Robinson S, Guta A, Tan DH, O'Leary B, Cooper C, et al. Illicit drug use while admitted to hospital: Patient and health care provider perspectives. PloS One. 2020;15(3):e0229713.

4.   van Boekel LC, Brouwers EPM, van Weeghel J, Garretsen HFL. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. Drug and Alcohol Dependence. 2013;131(1-2):23-35.

5.   Johansson L, Wiklund-Gustin L. The multifaceted vigilance – nurses' experiences of caring encounters with patients suffering from substance use disorder. Scandinavian Journal of Caring Sciences. 2016;30(2):303-11.

6.   Pauly B, McCall JJ, Browne JA, Parker JJ, Mollison JA. Toward cultural safety: Nurse and patient perceptions of illicit substance use in a hospitalized setting. Advances in Nursing Science. 2015;38(2):121-35.

7.   Wyder M, Bland R, Blythe A, Matarasso B, Crompton D. Therapeutic relationships and involuntary treatment orders: Service users' interactions with health-care professionals on the ward. International Journal of Mental Health Nursing. 2015;24(2):181-9.

8.   Lekas H-M, Alfandre D, Gordon P, Harwood K, Yin MT. The role of patient-provider interactions: Using an accounts framework to explain hospital discharges against medical advice. Social Science & Medicine (1982). 2016;156:106-13.

9.   Ti L, Ti L. Leaving the hospital against medical advice among people who use illicit drugs: A systematic review. American Journal of Public Health. 2015;105(12):e53.

10.   Allen D, Brouwer J, Dong K, Dyer D, Etches N, Evans L, et al. Guidance document on the management of substance use in acute care 2020 [Available from: https://crismprairies.ca/wp-content/uploads/2020/02/Guidance-Document-FINAL.pdf.

11.   Hyshka E, Morris H, Anderson-Baron J, Nixon L, Dong K, Salvalaggio G. Patient perspectives on a harm reduction-oriented addiction medicine consultation team implemented in a large acute care hospital. Drug and Alcohol Dependence. 2019;204.

12.   Haskell R, Graham K, Bernards S, Flynn A, Wells S. Service user and family member perspectives on services for mental health, substance use/addiction, and violence: A qualitative study of their goals, experiences and recommendations. International Journal of Mental Health Systems. 2016;10.

13.   Hamovitch E, Choy-Brown M, Stanhope V. Person-centered care and the therapeutic alliance. Community Mental Health Journal. 2018;54(7):951-8.

14.   Canadian Medical Protective Association. Hidden impacts of the opioid crisis: Rare infections are on the rise 2020 [Available from: https://www.cmpa-acpm.ca/en/advice-publications/browse-articles/2020/hidden-impacts-of-the-opioid-crisis-rare-infections-are-on-the-rise#ref.

15.   Silverman M, Slater J, Jandoc R, Koivu S, Garg AX, Weir MA. Hydromorphone and the risk of infective endocarditis among people who inject drugs: a population-based, retrospective cohort study. The Lancet. 2020;20(4):487-97.

16.   Weir MA, Slater J, Jandoc R, Koivu S, Garg AX, Silverman M. The risk of infective endocarditis among people who inject drugs: A retrospective, population-based time series analysis. Canadian Medical Association Journal. 2019;191(4):E93.

17.   Soukup-Baljak Y, Greer AM, Amlani A, Sampson O, Buxton JA. Drug quality assessment practices and communication of drug alerts among people who use drugs. International Journal of Drug Policy. 2015;26(12):1251-7.

18.   Gomes T, Pasricha S, Martins D, S G, al. e. Behind the prescriptions: A snapshot of opioid use across all Ontarians. Toronto, ON: Ontario Drug Policy Research Network; 2017.

19.   Public Health Ontario. Opioid-related morbidity and mortality in Ontario 2017 [Available from: https://www.publichealthontario.ca/en/dataandanalytics/pages/opioid.aspx#/maps.

20.   Canadian Institute for Health Information. Opioid-related harms in Canada 2017 [Available from: https://www.cihi.ca/sites/default/files/document/opioid-harms-chart-book-en.pdf.

21.   DPRA Canada. North West Local Health Integration Network: Aboriginal health programs and services analysis & strategies: Final report 2010 [Available from: http://www.northwestlhin.on.ca/resources/~/media/sites/nw/uploadedfiles/Home_Page/Report_and_Publications/NW%20LHIN%20Aboriginal%20Health%20Programs%20and%20Services%20Analysis%20and%20Strategy.pdf.

22.   Flick U. Triagulation. In: Denzin NK, Lincoln YS, editors. The SAGE handbook of qualitative research. 4th ed. Thousand Oaks, CA: SAGE Publications, Inc.; 2018. p. 444-61.

23.   Fram S. The constant comparative analysis method outside of grounded theory. The Qualitative Report. 2013;18(1):1-25.

24.   Braithwaite V, Nolan S. Hospital-based addiction medicine healthcare providers: High demand, short supply. Journal of Addiction Medicine. 2019;13(4):251-2.

25.   Englander H, Velez KC, Bielavitz S, Chan B, Weimer MB, Korthuis PT. Understanding substance use needs among hospitalized adults. Journal of General Internal Medicine. 2015;30(Suppl 2):45.

26.   Suzuki J. Medication-assisted treatment for hospitalized patients with intravenous-drug-use related infective endocarditis. American Journal on Addictions. 2016;25(3):191-4.

27.   PHS Community Services Society. Community Tranisitional Care Team 2021 [Available from: https://www.phs.ca/program/community-transitional-care-team/.

28.   Dong KA, Brouwer J, Johnston C, Hyshka E. Supervised consumption services for acute care hospital patients. Canadian Medical Association Journal. 2020;192(18):E476-E9.

29.   McNeil R, Small W, Wood E, Kerr T. Hospitals as a 'risk environment': An ethno-epidemiological study of voluntary and involuntary discharge from hospital against medical advice among people who inject drugs. Social Science & Medicine. 2014;105:59-66.

30.   Fonti S, Davis D, Ferguson S. The attitudes of healthcare professionals towards women using illicit substances in pregnancy: A cross-sectional study. Women and Birth: Journal of the Australian College of Midwives. 2016;29(4):330-5.

31.   Saitz R, Daaleman TP. Now is the time to address substance use disorders in primary care. Annals of Family Medicine. 2017;15(4):306-8.

32. Fornili KS. Part 1: The Theoretical Basis for Recovery-Oriented Management of Substance Use Disorders in Primary Care. Journal of Addictions Nursing. 2016;27(2):78-85.

33. Suzuki J, El-Haddad S. A review: Fentanyl and non-pharmaceutical fentanyls. Drug and Alcohol Dependence. 2017;171:107-16.

34. Fornili KS. Part 2: Screening, brief intervention and referral to treatment plus recovery management: A proposed model for recovery-oriented primary care. Journal of Addictions Nursing. 2016;27(2):E1-E2.

35. Oser CB, Harp KLH. Treatment outcomes for prescription drug misusers: The negative effect of geographic discordance. Journal of Substance Abuse Treatment. 2015;48(1):77-84.

36. Chiovitti RF. Theory of protective empowering for balancing patient safety and choices. Nursing Ethics. 2011;18(1):88-101.

37. Gordon A, Cone EJ, DePriest AZ, Axford-Gatley RA, Passik SD. Prescribing opioids for chronic noncancer pain in primary care: risk assessment. Postgraduate Medicine. 2014;126(5):159-66.

38. Ti L, Voon P, Dobrer S, Montaner J, Wood E, Kerr T. Denial of pain medication by health care providers predicts in-hospital illicit drug use among individuals who use illicit drugs. Pain Res Manag. 2015;20(2):84-8.

39. Grewal HK, Ti L, Hayashi K, Dobrer S, Wood E, Kerr T. Illicit drug use in acute care settings. Drug and Alcohol Review. 2015;34(5):499-502.

40. McNeil R, Kerr T, Pauly B, Wood E, Small W. Advancing patient-centered care for structurally vulnerable drug-using populations: A qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. Addiction. 2016;111(4):685-94.

41. Tammi T, Hurme T. How the harm reduction movement contrasts itself against punitive prohibition. International Journal of Drug Policy. 2007;18(2):84-7.

42. Mamakwa S, Kahan M, Kanate D, Kirlew M, Folk D, Cirone S, et al. Evaluation of 6 remote First Nations community-based buprenorphine programs in northwestern Ontario. Canadian Family Physician. 2017;63(2):137-45.

43. Clarkson A, Harris N, Brazeau J, Brownlee K, Rawana E, Neckoway R. Initial therapeutic alliance and treatment engagement of Aboriginal and non-Aboriginal youths in a residential treatment center for substance abuse. Journal of Ethnic & Cultural Diversity in Social Work. 2013;22:145-61.

44. Berg M, Bowker G. The multiple bodies of the medical record: Toward a sociology of an artifact. Sociological Quarterly. 1997;38(3):513-37.

45. Goddu A, O'Conor K, Lanzkron S, Saheed M, Saha S, Peek M, et al. Do words matter? Stigmatizing language and the transmission of bias in the medical record. Journal of General Internal Medicine. 2018;33(5):685-91.