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PUBLIC HEALTH & PRIMARY CARE | RESEARCH ARTICLE

Perspectives of healthcare workers about the delivery and evaluation of harm reduction services for people living with HIV who use substances

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Abstract: *Background:* Harm reduction (HR) programs and services have strong empirical support in reducing the negative outcomes associated with substance use and are becoming increasingly recognized across the continuum of healthcare services. *Aims:* To explore frontline healthcare workers (HWs) experiences and perspectives on the benefits and challenges of providing HR programming and care to HIV-positive clients. *Methods:* A 20 question survey, inclusive of open-ended questions and quantitative rating scales, was completed by HWs at two HIV/AIDS dedicated facilities in Canada implementing HR services. *Findings:* A total of 64 HWs participated in the survey, with an average of 6.2 years (range: 0.5–18) of experience in HR programs. HWs identified healthcare system engagement and building positive client relationships as key outcomes for evaluation of HR programs. Personal and inter-team related dynamics were highlighted as challenges experienced when utilizing HR in the provision of care. The absence of clear procedures and policies were identified by HWs as barriers to effective implementation of HR programming. *Conclusions:* The results of this study can be utilized to inform, establish, and guide HR programs, services, and policy development to ensure the delivery of quality care.

Subjects: Health Policy; Population Health; Health Education and Promotion; Addiction & Treatment

Keywords: harm reduction; HIV; AIDS; healthcare providers; survey

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Bill O'Leary is a PhD student at the University of Toronto, Factor-Inwentash Faculty of Social Work and a practicing clinical social worker at Casey House, a specialized HIV/AIDS hospital. Bill's research activities are informed by his clinical practice experience and are centered on issues related to HIV/AIDS; harm reduction/substance use; and equitable healthcare practice/services. The research reported in this paper is connected to a broader program of research focused on issues affecting marginalized people who are living with a chronic health issue and who engage in substance use.

PUBLIC INTEREST STATEMENT

Harm reduction is an evidence-based approach to HIV prevention, treatment, and care. There is a recognized need to increase the adoption of harm reduction approaches in hospital and community health settings. We strongly believe that this study, which provides an exploration of healthcare workers perspectives at two organizations that have adopted a harm reduction philosophy and policy to direct their care for people living with HIV, is important for increasing the dialogue of the benefits and challenges of providing care in a harm reduction setting.

1. Introduction

Harm reduction (HR) refers to policies, programs and practices designed to reduce negative physical, social, and economic consequences resulting from substance use without requiring abstinence as a primary goal (Carlberg-Racich, 2016). As indicated by Harm Reduction International (n.d.), HR uses an evidence based theoretical stance to inform a pragmatic approach to reduce adverse health effects of drug use; this stance directly informs HIV prevention, treatment, and care. Central to HR is the belief that clients have the right to make their own choices and have an active role in caring for their own health (Pauly, 2008). Fundamental to HR is the engagement of clients in practical strategies to improve their health and social outcomes (Rachlis, Kerr, Montaner, & Wood, 2009). Service providers from a variety of disciplinary backgrounds (i.e. nursing, counseling, outreach, medicine, recreational therapy etc.) play a key role in facilitating access and participation within a range of services and supports that can reduce social isolation and experiences of stigma for clients (Krusi, Small, Wood, & Kerr, 2009; Palamar, 2013; Pauly, MacKinnon, & Varcoe, 2009).

1.1. Substance use and healthcare services

People who use substances are reported to be admitted to hospital and emergency departments more frequently than the general population (Fairbairn et al., 2012). It is recognized that substance use is a predictor for leaving hospital against medical advice (AMA) which ultimately limits the provision of adequate care (Brubacher et al., 2008; McNeil, Small, Wood, & Kerr, 2014). A study by Choi, Kim, Qian, and Palepu, 2011 reported that 54% of 178 AMA discharges of substance users required readmission to hospital within 14 days. Strategies that incorporate an HR approach such as methadone maintenance treatment (a pharmacotherapy substitution) in an inpatient setting has been shown to reduce the likelihood of opioid dependent clients leaving AMA and results in improved overall health (Jacobsohn et al., 2008; Walley et al., 2012). Although the integration of HR into hospital setting is relatively novel, there is a general push for greater implementation (Haber, Demirkol, Lange, & Murnion, 2009; McNeil et al., 2014; Mofizul Islam, Topp, Day, Dawson, & Conigrave, 2012; Rachlis et al., 2009; Strike, Guta, de Prinse, Switzer, & Chan Carusone, 2014).

People living with HIV (PLWH) may particularly benefit from integration of HR in hospitals and other healthcare settings for several reasons. Firstly, prevalence of substance use among PLWH in North America is estimated to be as high as 70% in the United States over a one-year time period (Korthuis et al., 2008; Sohler et al., 2007); over 75,000 people in Canada are living with HIV with 18% of newly diagnosed cases involving individuals endorsing injection drug use (Canada, 2014). Second, substance use is linked with adverse health behaviors and outcomes for PLWH, such as sub-optimal medication adherence and disease progression that can lead to further hospitalizations (Balsa, French, Maclean, & Norton, 2009; Neblett et al., 2011). Lastly, PLWH who use substances are admitted to hospital more frequently than the general population and when admitted require longer stays to address health issues (Brubacher et al., 2008; Choi et al., 2011; Kerr et al., 2005).

1.2. Informing harm reduction programs and services

An understanding of the perspectives of frontline healthcare workers (HWs) and the barriers faced in providing effective care with respect to supporting clients in accessing and receiving services is particularly important given the complex healthcare needs of PLWH who use substances (Gwadz et al., 2016; Kuchinad et al., 2016). Previous studies have highlighted and explored how the professional attitudes of HWs serving PLWH strongly influences the success of implementing HR into existing programs and services (Shen et al., 2013). However, healthcare settings seeking to implement programming for PLWH are limited by the lack of studies on the components of effective HR from a HW perspective. Furthermore, there are no existing metrics to measure successful implementation. As such, the primary aim of this study was to explore frontline HWs experiences and perspectives on the benefits and challenges of providing HR programming to PLWH in settings with established HR policies. Specifically, we aimed to gather HWs opinions on the positive and negative outcomes of delivering HR in their settings as well as their views on what outcome indicators should be used to assess program performance.

2. Methods

The study was conducted in two locations in Canada: Casey House in Toronto, Ontario and the Dr. Peter Centre in Vancouver, British Columbia. At the time of this study, these are the only healthcare facilities in Canada that have in place a formal HR policy and HR programming that is specifically targeted towards providing support and care for PLWH. HR policy at both sites place emphasis on staff attitudes, behaviours and care strategies as core elements to HR programming and services; all staff review the HR policy and receive HR organizational training that incorporates the stated core elements.

Casey House, a sub-acute care hospital, provides inter-professional healthcare services for PLWH offering inpatient services consisting of general, palliative, and respite admissions and a community care program that supports clients' health needs without hospitalization. Clients in the inpatient program have access to an integrated, inter-professional healthcare team consisting of physicians, nurses, social workers, and other healthcare professionals. A community team of nurses and social workers engage in outreach to agencies that serve the city's marginalized populations.

Founded in 1992, the Dr. Peter Centre in Vancouver, British Columbia, provides three core programs: (1) a residence with 24-h access to specialized nursing care for adults living with HIV and complex health issues including mental illness and addiction; (2) an enhanced supportive housing program with staff providing a series of customized supports, including case management, house-keeping and life skills; and (3) a Day Health Program providing meals and comprehensive clinical services 7-days a week.

To assess HWs attitudes towards HR, its impacts and potential outcome indicators, we created a questionnaire and recruited HWs at both sites to complete the survey. The questionnaire was guided by, and developed using, commonly cited outcome measures of community-based HR programs identified in the literature (i.e. needle exchange programs; opioid maintenance therapy; safer crack use kit programs; and alcohol-related programs) (Logan, Chan Carusone, Barnes, Rohailla, & Strike, 2014). These components were incorporated within a 20-question survey inclusive of 13 open and 7 closed ended questions from a list of domains (Table 1). The pilot of the survey was conducted at both sites with members of the clinical staff team, researchers, and management. As a result, minor changes were made to the language to strengthen clarity of the questions. HWs involved in the pilot were eligible to participate in the survey when launched as part of the study. A survey, deemed appropriate as it provided anonymity and allowed for the collection of a broader ranges of responses, yielded immediate feedback to organizational leaders who sought to implement policy revisions and upgrades to training modules. Also, survey results enabled the drafting of a question guide for future qualitative interviews to be undertaken.

All full and part-time frontline HWs at one of these settings were invited to participate in the survey. In recruiting for this study, frontline HWs were defined as a staff person that provides direct service to a client. All eligible staff were sent an email and received a printed invitation (distributed through staff mailboxes) describing the study and its objectives. Those interested to participate were offered the choice of completing a confidential survey in an online (through Fluid Survey™) or paper format. Using a modified Dillman's method (Hoddinott & Bass, 1986), the invitation email was followed by two reminder e-mails sent one and a half and three weeks after the initial email. All participants provided consent and the study was approved by the Research Ethics Board at the University of Toronto. Data were managed and analyzed using Microsoft Excel. Descriptive statistical and content analysis approach was used to analyze responses. Open-ended responses were read completely and reviewed by 3 authors (MB, SR, SCC). An initial coding framework was developed by MB, reviewed and discussed by the three authors (MB, SR, SCC). Coding was done by MB and reviewed and confirmed by SCC. Due to the small sample size and to avoid breaches of confidentiality, no comparisons between the two sites were conducted.

Table 1. Survey domains: Harm reduction from a healthcare worker's perspective

- Participant characteristics (e.g. job title, years worked with people who use drugs, years working in an environment with HR embedded, hours of formal HR training, frequency of providing care to substance using clients)
- Comfort with providing care to substance using clients
- Attitudes about the HR policy in their setting
- Perceived positive and negative client outcomes attributed to the HR approach
- Challenges experienced providing healthcare using a harm reduction approach
- Perceived importance of outcome indicators for healthcare services provided within a harm reduction, including health outcomes (e.g. overdose, skin abscesses), risk behaviour (e.g. binge drug use), social outcomes (e.g. housing status at discharge), healthcare utilization following discharge (e.g. primary care, needle and syringe programs); mental health (e.g. cognitive function)
- Perceived value of varied program evaluation methods (e.g. surveys, focus groups)
- Key messages that a harm reduction policy in a healthcare setting should include

3. Results

3.1. Participants

A total of 64 HWs participated in completing the survey (see participant characteristics in Table 2). More than half of all participants reported daily interactions with clients engaged in the use of: tobacco, marijuana, alcohol, crack cocaine and/or polysubstance use (in order of decreasing frequency); and a third of the participants reported having daily interactions with clients engaged in the use of: prescription drug misuse, crystal meth, cocaine, and heroin. More than a quarter of participants (28%) reported working with more than 100 unique clients per year that use substances.

3.2. Comfort with harm reduction

When asked to indicate their level of agreement with the statement “[h]arm reduction practices are essential to improving the health of my clients”, 98% of the participants agreed or strongly agreed (Figure 1). When asked about their comfort providing care to clients with an active substance use problem, and their comfort using a HR approach with these clients, the majority of participants indicated they were very comfortable (61 and 62%, respectively). When provided with the statement “[s]ometimes I am uncomfortable with providing harm reduction to clients in a healthcare setting”, 34% of participants strongly or somewhat agreed.

Figure 1. Healthcare workers' agreement with statements related to comfort and perceptions of harm reduction.



Table 2. Participant characteristics

Characteristic	N (%/SD)
Organization	
Dr. Peter Centre	33 (52%)
Casey House	31 (48%)
Role in organization	
Nurse	27 (42%)
Other allied health professional	17 (27%)
Other	11 (17%)
Social worker/counsellor	6 (9%)
Support staff	3 (5%)
Hours of formal harm reduction training	
0–2 h	10 (16%)
2–5 h	10 (16%)
5–10 h	17 (27%)
10–20 h	8 (12%)
>20 h	16 (25%)
Don't remember/missing	3 (5%)
Years experience in a harm reduction focused organization	6.3 years (SD = 4.6)

The majority of participants agreed or somewhat agreed (66%) that providing care based on a HR approach for clients with substance use and chronic illnesses was more challenging than expected. More than half, 69%, agreed or somewhat agreed that to “do a better job in providing care for clients, I wish I had more training about harm reduction” (Figure 1).

3.3. Benefits of harm reduction

When asked to identify positive health outcomes observed in clients as a result of care delivered using a HR model, the most commonly cited responses included: clients gain “better overall mental health and physical health”, clients “start to think about their own health” and experience “improved immune capacity” as well as “less disease burden for some”. Other positive outcomes identified by participants were engagement into the healthcare system, social wellbeing, and stronger healthcare worker-client relationships.

When asked to list the three most important positive health outcomes attributed to the HR approach, overall better physical health was listed by 69% of participants, followed by better mental health (46%) and then compliance with medication (33%). When asked to consider the types of improvements in client’s lives resulting from HR, the ability to engage clients who may otherwise not be incorporated into the healthcare system was the most common response. This reflects the responses given in the benefits of HR section: “Allows [us] to engage with clients in a vulnerable, honest moment which greatly fosters trust building” and, “[e]ngage with clients that often have trouble utilizing the healthcare system”. Also indicated as a benefit by participants was the ability to build more trusting, respectful relationships with their clients when utilizing HR in the care provided.

3.4. Challenges of harm reduction

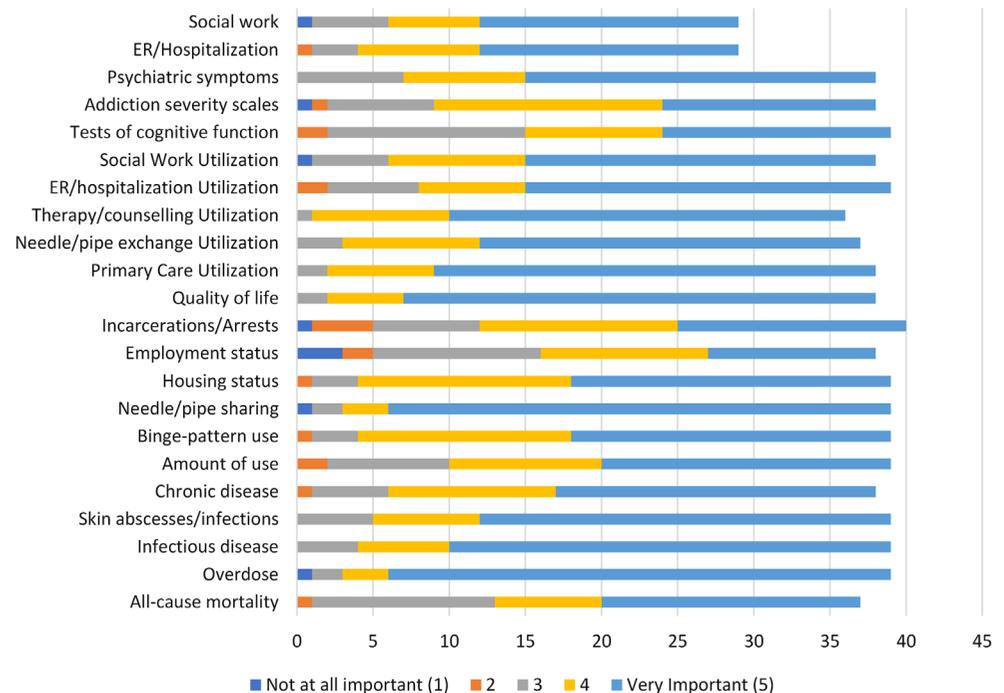
When asked to identify negative outcomes attributed to HR programming some participants identified “maintained or increased substance use”. Some participants worried that HR might contribute to drug use becoming “...very routine and comfortable, which may not always support people in addressing their addiction seriously”. Other commonly cited negative health outcomes of HR included: worse overall health, triggering other clients who choose not to use substances, and increasing stigmatization of drug use on the part of clients and HWs opposed to HR programming.

Participants were asked about challenges they experienced when using an HR approach. The most frequently listed responses related to declining staff morale. “It is always challenging to witness people struggling with addiction, even if we are doing what we can to prevent and reduce harm as much as possible”. More than a quarter of participants indicated that HR could negatively influence staff morale because of “abusive behaviours toward staff”, “depth of witnessing suffering”; and “mentally and physically exhausting” work. Following staff morale, responses included unclear procedures and policies, worse client overall health, lack of education to deal with complex issues, and a lack of team cooperation and shared goals as challenges of HR program and services implementation.

3.5. Ratings of harm reduction outcome measures

Participants rated the importance, on a scale of 1 to 5 (where 1 = not important at all and 5 = very important), of 22 outcomes commonly used to evaluate a HR program or intervention (Figure 2). Outcomes most frequently rated important or very important included: utilization of counseling/therapy services following discharge (94%), incidence of overdose (88%); frequency of the risk activity of needle or pipe-sharing (82%), quality of life (80%), utilization of primary care (74%) and skin abscesses/infections (69%).

Figure 2. Healthcare workers ratings of importance of 22 outcomes commonly used to evaluate a HR program or intervention.



3.6. Healthcare workers’ recommendations

Participants were asked to identify three key messages that should be included within a HR policy. The most commonly listed response was a need to embed clear procedures within policy. “Harm reduction procedures need to be as specific as any other clinical procedure so the organization can be sufficiently accountable and also mitigate risk”. Policies need to “include a statement about and process for addressing the issue of clients diverting/using differently than prescribed narcotics that are administered by our organization”. Also identified was the need for policy to make explicit the continued and appropriate education of HWs to manage and care for, in a holistic manner, the diverse needs of clients.

4. Discussion

Two key messages relating to the perspective of HWs on delivery of HR programming and their views on indicators of program performance emerged from this study. Firstly, the importance of integrating HR into programs and services to engage substance using clients in care *and* the health system and secondly, the negative impact on the well-being of HWs when utilizing HR in the provision of care.

Survey participants, when asked to focus on the use of HR in their practice, consistently highlighted the importance of developing and maintaining relationships with clients for effective HR to occur. Several themes emerged from participants' perspectives on the benefits of HR which included: holistic therapy with a focus on both the physical and mental well-being of clients; engagement of clients into the healthcare system; and providing clients with requisite social supports. An example of a "working model" that has successfully utilized key themes raised by participants can be found in HR based healthcare centres (HRHCs). HRHCs integrate mainstream healthcare services with a range of HR programs thereby addressing the needs of the client while at the same time strengthening the relationship with HWs (van Beek, 2007; McNeil, Dilley, Guirguis-Younger, Hwang, & Small, 2014). In addition, a study conducted by Bachireddy et al. (2014) demonstrates an increase in medication compliance and contact with care providers with a concomitant decrease in high risk substance use. These examples highlight the success of healthcare programs and services which integrate HIV care with substance use care.

Despite strong support for HR, participants identified indicators gleaned from their practice experience that demonstrate the challenges and negative effects of program delivery. Strain on staff, compounded by unclear HR guidelines and a need for more training were some of the identified deficiencies at not only the individual therapy level, but also within the overall structure of current HR programming. Participants commented on the emotional impact and mental distress of establishing trusting and respectful relationships with clients while also witnessing the often harmful effects of substance use, consistent with previous reports among healthcare workers (Ford, 2011).

A study conducted by Shen et al. (2013) examined the relationship between the level of education and training, AIDS-related knowledge, risk perception and professional attitude of HWs toward serving PLWH who use illicit drugs. Their findings showed the combination of caring for clients, the occupational risks of contracting HIV, and accepting the "illegal" behavior in these populations can lead to negative health and personal wellbeing among providers. Consistent with the messages provided by the participants in this study, it was reported that increased education and training in HR is beneficial for improved professional attitude, which can indirectly enhance quality of care.

While this study provides valuable information on HR programs, some limitations are present. Data were collected from HWs based in two urban Canadian cities at organizations that provide care to high numbers of substance using clients, which may impact application of these findings to rural areas. Also, the small sample size in this study may limit generalizability of findings. Findings put forward in this study related to substance use stigmatization and HWs' distress may be interpreted differently beyond Canada dependent on legislation and cultural norms. Furthermore, while some outcomes were ranked as being of lesser importance compared to others, these measures are interdependent and are not discrete outcomes.

5. Conclusion

This study highlights that current evaluation of HR needs to consider the values and perspectives of the frontline workers delivering care in addition to advocating for its' clients. Participants in this study voiced their strong support of HR programming as a pathway for the healthcare system to engage with PLWH who use substances, and as a tool to promote social wellbeing, and stronger healthcare worker-client relationships. The practice experience of HWs can be used to inform and evaluate HR research and programming; a key area of concern raised by participants is the

importance of having clear guidelines and procedures for HR programming and services, particularly when faced with issues regarding legal restrictions and the misuse of prescribed medications.

Greater focus placed on continued support, needs assessments, and provision of relevant training for HWs will enable healthcare providers to effectively deal with complex issues surrounding HR. As such, a recommendation to establish, or revise, policy and guidelines for the utilization of HR in programming and services provided to PLWH who engage in substance use will set bench marks by which evaluation can take place and ensure the provision of the quality of care delivered.

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Competing interests

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