ORIGINAL RESEARCH

PEER-REVIEWED

Pharmacists and harm reduction: A review of current practices and attitudes

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We wanted to conduct this review because of our interest in pharmacists' involvement in health promotion, specifically as it relates to harm reduction. Recognizing that many pharmacists in Canada are providing harm reduction services, we wanted to develop a better understanding of world-wide pharmacist involvement in such initiatives.

Nous voulions mener cette étude, car nous nous intéressons à la participation des pharmaciens aux programmes de promotion de la santé, notamment lorsqu'il est question de réduction des méfaits. Reconnaissant le fait que bon nombre de pharmaciens au Canada offrent des services de réduction des méfaits, nous voulions mieux comprendre leur participation à de telles initiatives à l'échelle mondiale.

ABSTRACT

Background: Injection drug use and other high-risk behaviours are the cause of significant morbidity and mortality and thus have been the focus of many health promotion strategies. Community pharmacists are considered underutilized health providers and are often thought to be more accessible than other health professionals. The purpose of this review is to provide an overview of community pharmacists' practices as well as pharmacists' attitudes and identified barriers toward providing harm reduction services. We will highlight the major harm reduction services being offered through community pharmacies, as well as identify barriers to implementing these services.

Methods: A review of the literature from 1995 to 2011 was conducted using the electronic databases MEDLINE, PubMed and Scopus, encompassing pharmacists' involvement in harm reduction services. Keywords included pharmacist, harm reduction, disease prevention, health promotion, attitudes, competence and barriers. References of included articles were examined to identify further relevant literature.

Results: Pharmacists are primarily involved in providing clean needles to injection drug users, as well as opioid substitution. Pharmacists generally have a positive attitude toward providing health promotion and harm reduction programs and express some interest in increasing their role in this area. Common barriers to expanding harm reduction strategies in community pharmacists' practice include lack of time and training, insufficient remuneration, fear of attracting unruly clientele and inadequate communication between health providers.

Conclusion: As one of the most accessible health care providers, community pharmacists are in an ideal position to provide meaningful services to injection drug users. However, in order to do so, pharmacists require additional support in the form of better health team and system integration, as well as remuneration models.
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Introduction

Over the past decade, a major shift in health care policy has emerged. As a result of escalating costs in the current system, a greater emphasis has been placed on integrating disease prevention and health promotion services with traditional disease management. For example, in his 2002 report on the future of health care in Canada, Roy Romanow envisioned a future where health care will have an "emphasis on preventing disease."[1] Romanow further described the importance of shifting resources to health promotion, where pharmacists can play an increasing role. These suggestions come largely from the universal sentiment that pharmacists are not being optimally utilized in the current health care system. As outlined in the Blueprint for Pharmacy vision statement, an area of future pharmacy practice will focus on "providing education and interventions to prevent disease, thereby promoting healthy lifestyles."[2]

Health promotion is defined by the World Health Organization as "the process of enabling people to increase control over, and to improve, their health."[3] Harm reduction falls under the broader umbrella of

health promotion and traditionally refers to policies or programs that are aimed at decreasing the adverse health, social and economic consequences of high-risk behaviours such as drug and alcohol use.[4] For the purposes of this paper, harm reduction services refer to strategies aimed at minimizing the harmful consequences associated with injection drug use and high-risk sexual activity, which are 2 significant social and health issues. Injection drug use accounts for 17% of new cases of HIV infection and approximately two-thirds of new cases of hepatitis C in Canada.[5,6] While the economic burden related to injection drug use is difficult to determine, the lifetime cost of treating each case of HIV infection is $150,000 and it has been estimated that the cost of treating hepatitis C in injection drug users (IDUs) in Canada between 2006 and 2026 will be $3.96 billion.[7,8] With the sequelae of injection drug use and high-risk sexual activity being so costly and burdensome, the implementation of more effective programs aimed at reducing these problems is a priority.

Throughout the literature, community pharmacists are acknowledged as important, underutilized resources in preventing the spread of HIV and other blood-borne infections. Pharmacists are recognized as one of the most accessible health care professionals for the general population and are in an ideal position to reach IDUs, who are often socially marginalized and often wish to maintain anonymity. Potential harm reduction roles for community pharmacists that have been identified include the sale of condoms and other safer-sex products, educating on safe-sex practices, selling clean needles/syringes, providing a site for disposal of used needles and syringes and dispensing oral methadone for the treatment of opiate dependence.

The purpose of this paper is to provide an overview of pharmacists' involvement in harm reduction services, with a particular focus on research that has evaluated pharmacists' attitudes and barriers toward provision of these services. A review of the literature from 1995 to 2011 was conducted through MEDLINE, PubMed and Scopus using the search terms pharmacist, harm reduction, disease prevention, health promotion, attitudes, competence and barriers. Relevant references of articles identified by the search were also reviewed by both study investigators. To be included in this review, studies had to focus on harm reduction services involving pharmacies, pharmacists' attitudes and identified barriers toward providing such services or both. Articles were excluded if they were not in English or did not meet the above inclusion criteria.

KEY POINTS

- The benefits of introducing harm reduction programs into community pharmacies include reducing the spread of blood-borne infections, as well as increasing entry of intravenous drug users into detoxification programs.
- Harm reduction programs in community pharmacies do not result in a significant increase in criminal activity in the store, nor do they result in reduced clientele due to fear or discomfort.
- Pharmacists are supportive of their role in harm reduction and identify a lack of time, training and interdisciplinary communication as major barriers to implementation.
- Centralized support of pharmacy involvement in harm reduction programs through financial and administrative support is a potential means for overcoming barriers.

Results

Current practices in harm reduction

One of the most common types of harm reduction service offered by community pharmacies as described in the literature involves the provision or exchange of clean needles for used ones. Many of the studies examining the effect of needle exchange services in pharmacies come from the United States. The introduction of syringe exchange programs in community pharmacies has demonstrated significant benefit for IDUs and the general public.[9,10] Additionally, due to the convenience of community pharmacies, the sale of clean injecting equipment in pharmacies has resulted in better access for certain marginalized populations. Studies in Canada have yielded similar results and have also noted that pharmacy-led programs have the additional benefit of referring IDUs to outreach clinics where social services are offered.[11,12] It seems that community pharmacies are more acceptable for casual IDUs and, since they are commonly found in a variety of locations, are not limited to one demographic. The anonymity of obtaining injecting equipment as well as free HIV and hepatitis C testing at pharmacies has led to increased utilization of pharmacies as injecting equipment exchange sites.[13-15] Additional benefits of permitting needle sales in pharmacies include increased entry and retention of IDUs in detoxification programs and increased opportunities to provide harm reduction advice.[13,16] Community pharmacies have adopted syringe exchange programs in many other countries with similar success. The provision of clean injecting equipment in rural Australian pharmacies resulted in reduced heroin use and criminal activity.[17,18] In Taiwan, needle and syringe programs were introduced to combat increased HIV infection and the majority of

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these community-based programs are maintained by pharmacists.[19] Additionally, needle and syringe sales in pharmacies have the advantage of attracting clientele who are currently social drug users with the potential for becoming more involved in high-risk behaviours.[20] It was also suggested that the reason for the success of offering clean needles in pharmacies is that IDUs do not feel as stigmatized obtaining injecting equipment in pharmacies.[21] Thus, pharmacists are in an ideal position to intervene with this lower-risk group and provide interventions and education where possible. In Scotland, pharmacists have been active in harm reduction by providing needle exchange services to IDUs, and the number of pharmacies and service users involved in these programs has been increasing.[22] Due to rising levels of hepatitis (B and C) and the recognition that pharmacies could be providing more harm reduction services, better payment models and more guidance on needle exchange policy have been introduced for pharmacies. This policy shift is likely one reason for the increased uptake of harm reduction services by pharmacies in Scotland. New Zealand pharmacies are also offering harm reduction services in the form of needle exchange, largely due to the country's centrally coordinated administration and funding of these services.[23] This central coordination ensures that injecting equipment and other supports are supplied to the pharmacy in a manner that facilitates optimal pharmacy involvement.

Community pharmacies also offer other harm reduction services beyond clean injecting equipment. Through the provision of opioid substitution therapy in Australian pharmacies, IDUs have been able to rehabilitate in a less-stigmatized environment.[20] Opioid substitution therapy is also offered at community pharmacies in many countries in Europe, as well as Canada, China, India, Australia and others.[24-28] Sexual health services, including education on preventing transmission of bloodborne infections, are another important harm reduction strategy offered at community pharmacies. In Scotland, community pharmacists feel confident in their ability to engage IDUs and provide them with information on how to prevent acquiring or transmitting HIV, hepatitis B and hepatitis C from sexual activity.[24] Pharmacies in Scotland are also involved in testing for chlamydia infections, helping reduce the spread of this infection and the associated costs to the health care system.[29] Similarly, pharmacies in China provide testing services for a number of sexually transmitted infections, while in Nigeria pharmacists are expanding their services to include safe-sex advice.[30,31]

Pharmacists' attitudes toward harm reduction

Many of the studies that have evaluated pharmacists' attitudes toward harm reduction originated in the United Kingdom, where community pharmacists are often involved in the provision of harm reduction services. Matheson et al. looked at the change in pharmacists' attitudes toward providing harm reduction services and noted that with increased exposure to IDUs, pharmacists became more positive about working with this population.[22] This study also found that pharmacists were more comfortable providing opioid substitution services than needle exchange programs, as this role is more in line with a pharmacist's involvement in drug therapy. In a study looking at pharmacists' attitudes about providing advice to IDUs on preventing acquisition and transmission of HIV, hepatitis B and hepatitis C infections, pharmacists acknowledged the need for this service and expressed a desire to expand their role in this area.[24] Interestingly, pharmacists also expressed more confidence and comfort in providing sexual health counsel to IDUs than to men who have sex with men. Pharmacists were more likely to offer harm reduction services if their location and situation demanded them and pharmacists had a diverse set of attitudes toward the IDU population, ranging from sympathy and remorse to apathy and disdain.[32,33]

Studies in the United States have revealed similar data with respect to the recognized need for harm reduction services in community pharmacies. A survey of Rhode Island practitioners found that pharmacists felt it was their role to provide equipment and advice to IDUs to prevent the spread of infections and that providing these services in the community pharmacy setting would not disrupt regular pharmacy services.[34] Similarly, pharmacists in New York noted no increase in crime or discomfort among staff and customers following the introduction of clean needle sales, despite fears to the contrary.[15] Furthermore, pharmacists offering needle disposal services and providing sharps containers to IDUs felt that these services had reduced the number of used needles being disposed in their neighbourhoods. A review of California pharmacies providing needle disposal and exchange services found that in areas with more IDUs, pharmacists were more willing to provide harm reduction advice.[14] These trends are also apparent in Australian pharmacies providing harm reduction services. Le and Hotham found that pharmacists providing harm reduction services felt that this was within their role of promoting public health and social responsibility.[17] This study also noted that practising in rural environments enhanced com-

munication between pharmacists and other health care providers — an important revelation considering the complex care required for IDUs. However, other studies noted that, while the introduction of opioid substitution therapy in rural Australian pharmacies was supported by both pharmacy staff and nonparticipating customers, enhanced communication between members of the health care team would lead to optimal service delivery.[20] In Europe, the relationship between pharmacists and health care services was also noted as crucial to the provision of comprehensive services for IDUs. In Estonia, pharmacists were mostly supportive of their role in providing harm reduction services (opioid substitution therapy, syringe exchange), but felt that they needed more knowledge of local health care resources.[21] Additionally, despite feeling that they should have a significant role in harm reduction, pharmacists in Estonia were hesitant to become involved due to a lack of experience with IDUs and an inability to refer them to other support services. A study in Guyana revealed that knowledge of HIV risk factors and modes of infection was strongly correlated with pharmacists' comfort and ability to provide advice and education to IDUs.[35] In Canada, pharmacists have recognized the need for an increased role in providing harm reduction information to IDUs (especially hepatitis C prevention), but expressed frustration at the lack of a clear policy allowing them to do so.[12]

Barriers to developing harm reduction programs

Several studies have examined the barriers to implementing harm reduction and health promotion services in community pharmacies. One of the major barriers identified in the literature is fear — fear of harm to staff, fear of losing other clientele, fear of shoplifting and fear of increased used needle disposal nearby.[16,22,24] However, it appears that many of these fears are unfounded. Tesoriero et al. surveyed New York pharmacists to assess how their practices had changed after the introduction of syringe exchange programs and found that very few reported any increases in crime or disruptive behaviours.[15] Other oft-cited barriers to implementing harm reduction services are legal and ethical misgivings surrounding needle sales and exchanges. These misgivings include the belief that participating in harm reduction services in some way condones the illicit behaviour or that supplying injecting equipment is illegal. One investigator reported that although pharmacists often cited legal ramifications as a reason they would not dispense needles to clients, the law and practice standards are quite clear regarding syringe sales and exchanges.[12]

POINTS CLÉS

- Parmi les avantages découlant de la mise en œuvre de programmes de réduction des méfaits dans les pharmacies communautaires, notons la réduction de la propagation des infections transmissibles par le sang et un nombre accru de consommateurs de drogues par voie intraveineuse dans les programmes de désintoxication.
- Nous avons constaté que la mise sur pied de programmes de réduction des méfaits dans les pharmacies communautaires n'entraîne pas une augmentation significative du nombre d'actes criminels dans le magasin et ni une diminution de la clientèle en raison des craintes et du malaise que ce programme pourrait entraîner.
- Les pharmaciens sont sensibles au rôle qu'ils jouent dans la réduction des méfaits et ont indiqué que le manque de temps, de formation et de communications interdisciplinaires sont les principaux obstacles à la mise en œuvre.
- Il est possible de surmonter les obstacles en centralisant l'appui offert aux pharmacies qui participent aux programmes de réduction des méfaits par l'entremise d'un soutien financier et administratif.

It appears to be more a lack of knowledge about laws governing harm reduction practices than the laws themselves.[36] Company directives regarding harm reduction services for IDUs also influence pharmacists' involvement in these services. Company policies toward syringe exchanges range from fully supportive to prohibitive.[33] Similar to barriers cited for introducing other new services in community pharmacies, lack of time, training, space and appropriate remuneration are also cited as reasons for not initiating or offering limited harm reduction services.[24,36] Finally, an interesting barrier noted by Hall and Matheson was that the lack of interdisciplinary teamwork contributed to decreased pharmacist commitment to harm reduction services.[33] This feeling of disconnect also led to an inability of pharmacists to refer clients to appropriate social and health care resources.[17,33]

Summary

Community pharmacists are uniquely positioned to provide harm reduction services, such as providing clean needles, administering opioid substitution therapy, as well as educating on ways to minimize the transmission of blood-borne pathogens, as part of an expanding role in health promotion. Studies examining attitudes have found that pharmacists are generally willing to offer harm reduction services and that with increased exposure, their fears about disruptive behaviour were unfounded. Expansion of needle exchange services within pharmacies may be achieved through policy changes that provide better central support and guidance

as well as remuneration for these programs. In other countries, pharmacies are actively recruited into national harm reduction programs based on regional needs and are subsequently provided the financial support needed for involvement.

Limitations of this review include exclusion of non-English studies, as well as the possibility that studies may have been missed based on the dates selected. In addition, much of the existing literature was primarily based on surveys and, as such, does not necessarily reflect what is actually happening in practice or include an evaluation of health outcomes.

As research from other countries has been used to direct and evaluate policy change in a manner that facilitates pharmacy involvement in harm reduction, it is important to continue investigating this role for community pharmacists in Canada and elsewhere. Future research should be aimed at evaluating the effectiveness of harm reduction interventions in community pharmacies, as this is currently lacking. Some of the barriers to implementing harm reduction services may be addressed through additional education in pharmacy curricula and continuing education programs with respect to blood-borne pathogens and transmission, substance use and harm reduction, including an increased emphasis on interdisciplinary teamwork. In addition, pharmacy technician regulation may free up opportunities for expansion of the pharmacist's role in harm reduction. ■

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