Crack cocaine use is on the rise in North America, particularly among individuals residing in impoverished, inner-city neighborhoods (Lejuez, Bornovalova, Reynolds, & Daughters, 2007; Leonard et al., 2007). There are a number of health problems associated with crack use, including finger, lip, mouth, and throat burns (Bungay, 2008; Malchy, Bungay & Johnson, 2008), and respiratory and cardiac complications (Butters & Erickson, 2003). There is a growing body of evidence that suggests that crack use is “gendered” (Johnson et al., 2008). Women (a) often lack their own equipment (inhibiting safer use by increasing susceptibility to sharing of equipment and therefore potential infection transmission); (b) are frequently second to use a pipe (thereby facilitating exposure to infection); and (c) frequently depend on others—especially men—to obtain their supply of crack (Johnson et al.). There is also evidence that women report more frequent crack use than men. Recent findings from investigations in Vancouver’s Downtown Eastside (DTES), for instance, illustrated a 34% vs. 27% affirmative response for crack use among women and men participants (Community Health and Safety Evaluation [CHASE] Project Team, 2005).

The rising rates of use and related health issues have led to the identification of crack use as a public health problem in Canada (Haydon & Fischer, 2005), and there is growing attention among researchers and health care providers to identify strategies to minimize crack-related harms. Of particular importance is the concept of safer crack use, defined as actions taken (e.g., employing mouthpieces, screens, and Pyrex pipes; using in safe places) to reduce the potential physical, psychological, and interpersonal harms associated with crack use. To date, research has emphasized the development and implementation of system-level harm-reduction programs that include the distribution of crack smoking supplies. Less attention has been paid to individual-level harm-reduction strategies. Additionally, despite the evidence that women are smoking crack at higher rates than men and experience significant harms, the processes by which women engage in safer crack use are poorly understood. Understanding women’s individual-level strategies for safer crack use is essential to inform meaningful harm-reduction services that are targeted to support and facilitate existing public health efforts (Duff, 2009; Johnson et al., 2008).

The Process of Safer Crack Use Among Women in Vancouver’s Downtown Eastside

Ingrid E. Handlovsky, Vicky Bungay, Joy Johnson, and J. Craig Phillips

Abstract

In this article we discuss the findings from a grounded theory study in which we explored how women residing in Vancouver’s Downtown Eastside (DTES) minimized some of the physical, psychological, and interpersonal harms associated with crack cocaine use, and identify the social, economic, and political factors that influence safer use. Data were collected over a 3-month period and involved group interviews with 27 women at an agency run by drug users in the DTES. A preliminary theory of safer crack use is discussed, consisting of the central phenomenon of caring for self and others. In addition, four thematic processes are described: (a) establishing a safe physical space, (b) building trusting relationships, (c) learning about safer crack use, and (d) accessing safer equipment. Implications of the findings are discussed in relation to supporting women’s efforts and improving health outcomes.

Keywords
crack cocaine use; grounded theory; health promotion; poverty; vulnerable populations; women’s health

Crack cocaine use is on the rise in North America, particularly among individuals residing in impoverished, inner-city neighborhoods (Lejuez, Bornovalova, Reynolds, & Daughters, 2007; Leonard et al., 2007). There are a number of health problems associated with crack use, including finger, lip, mouth, and throat burns (Bungay, 2008; Malchy, Bungay & Johnson, 2008), and respiratory and cardiac complications (Butters & Erickson, 2003). There is a growing body of evidence that suggests that crack use is “gendered” (Johnson et al., 2008). Women (a) often lack their own equipment (inhibiting safer use by increasing susceptibility to sharing of equipment and therefore potential infection transmission); (b) are frequently second to use a pipe (thereby facilitating exposure to infection); and (c) frequently depend on others—especially men—to obtain their supply of crack (Johnson et al.). There is also evidence that women report more frequent crack use than men. Recent findings from investigations in Vancouver’s Downtown Eastside (DTES), for instance, illustrated a 34% vs. 27% affirmative response for crack use among women and men participants (Community Health and Safety Evaluation [CHASE] Project Team, 2005).

The rising rates of use and related health issues have led to the identification of crack use as a public health problem in Canada (Haydon & Fischer, 2005), and there is growing attention among researchers and health care providers to identify strategies to minimize crack-related harms. Of particular importance is the concept of safer crack use, defined as actions taken (e.g., employing mouthpieces, screens, and Pyrex pipes; using in safe places) to reduce the potential physical, psychological, and interpersonal harms associated with crack use. To date, research has emphasized the development and implementation of system-level harm-reduction programs that include the distribution of crack smoking supplies. Less attention has been paid to individual-level harm-reduction strategies. Additionally, despite the evidence that women are smoking crack at higher rates than men and experience significant harms, the processes by which women engage in safer crack use are poorly understood. Understanding women’s individual-level strategies for safer crack use is essential to inform meaningful harm-reduction services that are targeted to support and facilitate existing public health efforts (Duff, 2009; Johnson et al., 2008).

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Literature Review

Much of what is known about women’s safer crack use efforts is situated within harm-reduction programming and service-delivery research. Findings suggest that women demonstrate a desire to access harm-reduction services that include smoking supplies and health education (Bungay, 2008; Bungay et al., 2009; Bungay, Johnson, Varcoe, & Boyd, 2010; Johnson et al., 2008; Leonard et al., 2007; Malchy et al., 2008). Researchers have documented women’s involvement in community programming aimed at supporting safer practices (Johnson et al.), but much of this research has not been exclusive to women (Bungay; Bungay et al., 2010; Johnson et al.; Leonard et al., 2007; Malchy et al.). The minimal research concerned with individual harm-reduction practices has emphasized crack use in pregnancy, shedding light on the safer crack use practices of expectant mothers (Kearney, Murphy, Irwin, & Rosenbaum, 1995; Kearney, Murphy, & Rosenbaum, 1994b). Women’s behaviors, however, have been examined primarily as strategies to promote the health of the developing fetus (Kearney et al., 1995; Kearney, Murphy, & Rosenbaum, 1994a). There remains a gap in understanding women’s actions outside the context of pregnancy.

Although not specific to crack use, some researchers have examined factors that impact individuals’ abilities to engage in harm-reduction practices, with a particular emphasis on injection drug use. For instance, the impact of the risk environment (defined as the social/physical space where injection drug use occurs) on injection drug use practices and HIV risk has been examined (Bungay et al., 2010; Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005). Research has illustrated the influence of neighborhood factors, including violence, assault, burglary, policing for safer drug use, vulnerability, and HIV transmission (Latkin, Williams, Wang, & Curry, 2005; Maas, Fairbairn, Kerr, Montaner, & Wood, 2007). The impact of violence and policing as environmental/structural barriers to safer injection practices have been reported (Shannon et al., 2008). Violence as a barrier to women’s ability to practice safer crack use has also been studied (Bungay et al., 2010; Johnson et al., 2008).

Research has shown that access to and availability of smoking equipment is instrumental to safer injection drug and crack use practices (Johnson et al., 2008; Leonard, DeRubeis, & Birkett, 2006; Leonard et al., 2007; Strike et al., 2006). Smoking equipment refers to materials used to smoke crack, such as a glass stem for a pipe and steel wool pad for a filter (Johnson et al.). Public health services that provide safer smoking materials such as Pyrex stems, metal screens, and mouthpieces minimize the spread of infections and finger, mouth, and throat burns (Johnson et al.). In addition to equipment, developing relations of care and reciprocity within communities that foster practices to minimize harms have been investigated (Duff, 2009). Previous research in Vancouver’s DTES has emphasized that creating supportive networks among women in which information is shared and women emotionally encourage each other is essential to promoting safer crack use practices (Bungay et al., 2009; Bungay et al., 2010; Johnson et al.).

Currently, research that explicitly examines how women engage in safer crack use practices and the factors that impact their efforts remain scarce. To address this gap we used a grounded theory approach to explore the process women engage in to practice safer crack use. By safer use, we refer to the actions women take to reduce the potential physical, psychological, and interpersonal harms associated with crack use described above. The primary research objectives were to (a) describe how women are practicing safer crack use and (b) identify and describe the personal, social, economic, interpersonal, and political factors that influence the process of safer crack use engaged in by women.

Method

Theoretical Perspectives

Informing the Study

The research activities were informed by a women-centered approach that embraced concerns for social justice and human rights (Barnett, 2000) and accentuated client empowerment, self-determination/choice, and the necessity for client self-determined goal setting (Brown, Stewart, & Larsen, 2005). Employing this women-centered approach was particularly relevant for research with the vulnerable population studied because it necessitated consideration of the social, economic, and political inequities unique to women and an awareness of the unjust power relations that constructed these inequities (Barnett). Fundamental to this study were creating spaces where women’s voices could be heard (Whynot et al., 2006) and appreciating the unjust power relations that created and perpetuated inequities (Barnett).

Harm reduction is an essential component of safer crack use. The philosophy of harm reduction, similar to a women-centered approach, entails maintaining a commitment to social justice and human rights (Barnett, 2000). Harm reduction developed out of the deficiencies of previous approaches to illicit drug use, specifically the prohibitionist approach, which frames drug users as criminals and consequently subjects them to legal sanctions (Marlatt, 1996). The philosophical roots of harm reduction in pragmatism and humanism provide a practical alternative to the criminalization of individuals who use substances by shifting the focus and blame away from
drug use itself to the consequences of use (Marlatt). Determining the consequences of drug use for the individual drug user, as well as society, allows for the evaluation of drug use behavior beyond simple moral judgments between what is right or wrong (Marlatt).

The concept of harm reduction has been defined by various authors, but in this study we used Tatarksy’s definition:

A pragmatic approach that accepts active substance use as a fact and assumes that substance users must be engaged where they are, not where the provider thinks they should be. It recognizes that substance use and its consequences vary along a continuum of harmful effects for the user and the community, and that behavior generally changes by small incremental steps. (1998, p. 10)

This definition situated our study within both the philosophical and practical tenets of harm reduction. It is important to recognize that abstinence is not the primary goal of harm reduction. However, abstinence is viewed as one of many varied alternatives to reduce harm, with the individual taking an active role in making responsible choices about his or her own life through education, knowledge, and informed decision making (Erickson, Riley, Cheung, & O’Hare, 1997). Drug use is viewed as dynamic, and includes a range of expression including casual, dependent, functional, controlled, and dependent use (Alexander, 2006). Moreover, problematic use is recognized as stemming from social factors and individual trauma (Alexander).

Setting and Participants

Ethical approval for this study was granted by the University of British Columbia Behavioral Research Ethics Board. The setting for this study was the DTES, one of Canada’s most economically disadvantaged neighborhoods. It is estimated that approximately 16,000 people live in the area, with women comprising 38% of the population (City of Vancouver, 2006). The area is home to major social issues, including poverty, drug use, crime, survival sex work, high HIV/HCV infection rates, violence, mental illness, and unemployment (CHASE Project Team, 2005). Women who live in the DTES reside in an environment filled with constant challenges, including violence, which pervades not only the streets and public areas, but also homes and social settings (Bungay et al., 2009; Bungay et al., 2010; Shannon et al., 2008). The paucity of job opportunities leads many women in the area into sex work, which introduces additional threats of violence (Bungay et al., 2009). Unstable housing and poverty force many women to sleep on the streets, and face constant hunger (Bungay et al, 2009). Crack use is prevalent in the neighborhood, and has been increasing steadily over the past 10 years (Malchy et al., 2008).

A total of 29 participants were recruited via purposive sampling from Vancouver Area Network of Drug Users (VANDU), an organization comprised of current and former drug users who work to improve the lives of people who use illicit drugs through user-based peer support and education (VANDU, 2008). The participants were attendees of women’s support groups at VANDU, which address many issues including harm reduction with regard to crack use. Women were required to have smoked crack within the previous 30 days and were recruited with the aid of a VANDU staff member who was the leader of one of the women’s support groups. The staff member was crucial in the sampling process, because this individual was familiar with the women enrolled in the groups and was therefore in a position to approach those who were currently using crack and engaging in safer use practices, as discussed at the support groups. The mean age of participants was 44.9 years, with a range of 22 to 59.5; this reflects the adult population that VANDU serves. All participants received income assistance. Twenty-five reported that they resided in the DTES, and 19 identified as Aboriginal.

Data Collection

Data were collected over a 3-month period via seven group interviews consisting of 4 women per group. In collaboration with VANDU staff, group interviews were determined to be the most effective means to obtain women’s views and opinions about safer crack use. Group interviews allowed women to more freely express their perspectives than is allowed by focus groups, whose goal is to uncover consensus on particular topics (Thorne, 2008). Group interviews encourage and provide the opportunity for the disclosure of individual, diverse experiences, and we wanted to ensure that we captured this diversity. Although the distinction might appear slight, we assert that group interviews were employed to emphasize the importance of diversity and unique experiences in conceptualizing safer crack use. Group interviews are consistent with a women-centered approach, as opposed to individual interviews, because participants might feel safer in small groups as opposed to one-on-one interviews with the researcher (Bungay et al., 2009).

All interviews were conducted by the first author. Verbal informed consent was obtained prior to all interviews and was used in place of written consent because people who are street-involved, and experience significant stigma associated with their income and drug-use status, are often reticent to engage in activities requiring a written signature (Bungay, 2008; Spittal et al., 2002).
Each participant received $20CDN for their time and contributions to the study. Interviews lasted 45 to 60 minutes and focused on participants’ past crack use practices in contrast to (then) current practices, drawing attention to how practices shifted over time.

An open-ended interview guide was developed that drew on the guide developed and utilized by Bungay (2008). Emphasis was placed on discussing factors that facilitated and impeded women’s safer crack use efforts. The interview guide was refined with the collaboration of the research team. Amendments were made to the interview guide throughout the course of the interviews to gain clearer understandings of key concepts. Broad, open-ended questions were posed, followed by more specific probing questions to derive detailed information about topics. The seventh interview was a validation interview to obtain clarification regarding themes that emerged in the first six interviews and to ensure that saturation was achieved (Charmaz, 2006). The interviewer used reflexive practice journaling of thoughts, impressions, and potential biases after each group interview. All group interviews were audio recorded and transcribed verbatim by an experienced transcriptionist.

**Data Analysis**

Data analysis was carried out using a grounded theory method that included open, focused, axial, and theoretical coding (Charmaz, 2006; Corbin & Strauss, 1998; Glaser, 1992). A grounded theory approach was chosen for this study because of the emphasis on process and uncovering how individuals work through problems (Charmaz; Corbin & Strauss). Because our impetus was to explore how women, over time, ultimately minimized the harms associated with crack use, grounded theory enabled us to explicate this process via development of a nascent theory (Charmaz; Corbin & Strauss).

Coding commenced with open coding, in which segments of data were categorized with a short name that simultaneously summarized and accounted for each piece of data. Consequently, the codes illustrated how we selected, separated, and sorted data to begin an analytical account of them (Charmaz, 2006). We moved through the data quickly and spontaneously to fuel thinking and promote novel conceptions of the information obtained, with the goal of capturing condensed representations of the information while ensuring that the active nature of the data was preserved (Charmaz). Charmaz described this concept as Glaser’s “coding with gerunds,” that entails preserving the actions of the participants, which in turn facilitates the researcher’s analysis from the participant’s viewpoint. By maintaining the perspective of the participants the researcher stays close to the data, which is a major tenet of open coding (Charmaz).

The next step, focused coding, entailed drawing on the most significant and/or frequent earlier codes as a means to move through large amounts of data (Charmaz, 2006). This process required decisions about which particular initial codes made the most analytic sense to categorize the data comprehensively and concisely (Charmaz). The constant comparative method, which compares open codes to identify similarities and differences, was applied at this stage of analysis (Glaser, 1992). At this time small notes called memos were used to document thoughts and ideas about possible connections between open codes, their meanings, and what the participants were expressing (Charmaz). The theoretical underpinnings of the study guided memo writing with potential questions such as: Is this really safer practice? Where did women learn about this practice? How does violence impact safer crack use? Memos provided an organized trail of thought processes and were the key to linking categories and identifying the core category, and fundamental in the development of the preliminary theory of safer crack use (Charmaz).

During the next step, axial coding, categories were related to subcategories with a specific focus on properties and dimensions of the categories (Charmaz, 2006). This process reassembled the data from the open coding phase to create coherence in the emerging analysis (Charmaz) and provide the means to “weave the story back together” (Glaser, 1992). Axial coding answered the questions “when, where, why, who, how, and with what consequences?” (Charmaz, p. 61). By applying these questions, we were able to describe women’s safer crack use practices and related influential factors more fully (Charmaz). The analysis culminated in theoretical coding, when we conceptualized how the codes might relate to each other as hypotheses to be integrated into a theory (Charmaz). Theoretical codes specify possible relationships between categories developed during the focused coding stage. This process facilitated telling a coherent, analytic story (Charmaz).

**Findings**

Drawing on the interview data for exemplary excerpts, a preliminary theory of safer crack use among women in the DTES is presented. To contextualize the findings, women’s crack use patterns are described first.

**Patterns of Crack Use**

Crack use was not a defining feature of the participants’ lives; however, it was a dynamic process that intersected with other aspects of day-to-day life. Some women experienced systematic crack use, but the issue of using frequently and having their lives organized by use shifted
over time. There were many reasons for shifting patterns, including the aging process, which women reported as an inability to “keep up” with daily use. Experiences such as an overdose or hospitalization also resulted in decreased use, as did prioritization of family, pets, work, and volunteer commitments. Most women indicated that they had no intention of quitting. The women reported that the nature of use had shifted from a daily pursuit that once consumed every moment to an activity that coincided with numerous other activities in their daily lives. Dialogue in the groups progressed and focused more on understanding how crack use patterns changed with regard to limiting the harms associated with use.

Theorizing About Safer Crack Use

The theory generated for women’s safer crack use was caring for self and others. Caring for self and others represents the central phenomenon expressed in the four thematic processes (establishing a safe place, building trusting relationships, learning about safer crack use, and accessing equipment and resources) illustrated in the women’s narratives.

Caring

Caring, from a philosophical and analytical standpoint, denotes a primary mode of being in the world, which is natural for humans and is of crucial importance in our relationships with both others and ourselves (Griffin, 1983). Caring for self and others was contingent on developing and maintaining those relationships. Consequently, women’s relationships were identified as key to the process of safer crack use. In the absence of relationships with others, it was not possible for women to establish a safe place, develop therapeutic relationships, learn about safer crack use, or access equipment and resources to limit the harms associated with crack. In sum, safer use practices required the dynamic integration of the four identified thematic processes to enable and sustain caring for the self and others.

Caring for Self and Others Through Establishing a Safe, Personal Place

Establishing a safe, personal place for women to care for the self and others when using crack was crucial because of the nature of violence in their lives. Many women recounted having experienced violence and physical harm when using crack, and that these incidents often entailed aggressive assaults in the neighborhood. Physical force was used to rob women of their money or other belongings, including drugs. One participant remarked, “People are always looking at you and wait until you’re frigging high so they can rob you.” Because of this threat, many women opted to use crack exclusively in their own homes, either alone or with trusted companions. Trust was established among some of the women because they had engaged in crack use together on several occasions without experiencing a personal safety breach.

The dangers of the outside environment also included random acts of violence that women described as commonplace. For example, one woman described being in an alley and witnessing an angry hotel tenant thrust a television set out the window. Random acts were perceived as more problematic when women used outside, because of the potential for reduced environmental awareness, “because if you’re out there and you’re using and you’re under the influence and your mind isn’t functioning very well, when you’re walking through a laneway you aren’t thinking about paying attention to what is going on around you.”

Police activity was cited as another danger, with women constantly fearing arrest. Participants recollected having their crack pipes smashed on the pavement by law enforcement officers and expressed the humiliation they felt, not to mention frustration around having to obtain a new pipe: “That’s the worst, having your pipe broken in front of you, or them [the police] making you step on it yourself.”

The outside environment was an additional danger because it was filthy, riddled with bacteria, and exposed women to additional health risks. Participants emphasized that by having their own personal place indoors, “you can better care for yourself by minimizing the risk of touching something harmful or mistakenly putting something other than crack [such as dirt or bird feces] in your pipe.” Unknowingly placing such unwanted items in one’s pipe was of particular relevance because many individuals who use crack engage in “tweaking.” Tweaking was defined by participants as a preoccupation with finding small pieces of crack that might have fallen in the nearby vicinity. Individuals engaging in tweaking can be observed vigilantly scouring the ground, using their fingers to dig around in the pavement to locate bits of crack. In addition to inadvertently placing dirt or bird feces in the pipe, tweaking outdoors is also risky because one might reach to the ground and rifle around in bits of glass or dirty needles. The indoors were perceived as a safer environment, where the prevalence of these items could be controlled or eliminated.

Caring for Self and Others

by Building Trusting Relationships

Relationships are the vehicle by which women exercised care for the self and others. By developing and cultivating a relationship with the self and building connections with others in the community, women had the opportunity to
put caring into action by engaging in safer use practices. Relationships, however, were complex and paradoxical. Unfortunately, many participants reported negative experiences with others, often involving violence. Women frequently scrutinized relationships to ensure the developing connections were trusting and supportive: “I watch who I smoke with because people get really freaky, you know? And some of them get paranoid, yeah, and they get violent. So I’m really careful who I smoke with.”

Once trust was established, women emphasized that camaraderie and support of others was a major contributor to safer use because it limited the potential for violence. Trusting and supportive relationships provided learning opportunities about minimizing harms and accessing resources in the neighborhood. Being in the company of trusted individuals in the context of using crack was paramount to caring for self and minimized the possibility of violence or aggression. These relationships eliminated the sense of worry or fear experienced by many women when they used crack with persons they did not know:

That’s why I pick my people. I keep them in my back pocket because I need to. You see, for me, if I have good friends and people that I trust then my trips are good when I smoke because I don’t have anything to be paranoid about.

When women surrounded themselves with trusted individuals it created an environment that not only protected them from violence, but facilitated safer use practices. Using with close others who were aware of the risks associated with sharing equipment resulted in not being asked to share. Women’s caring for each other’s health permitted refusal to share without hard feelings: “I know them [the women I use with] and I know they respect me and I respect them, so I know that . . . the dynamic, it’s okay. There’s an understanding why you’re not able to [share]”. Women’s caring for one another, however, also created a paradox in sharing practices. They expressed knowing how it felt to really need a “hoot” (taking a puff from the crack pipe) and would, out of empathy, share their pipe. One participant provided insight into how women’s caring for others inadvertently led to harm, “because they will [share], because they want to have that dope, and they know what it feels like to not be able to, so they share.”

The idea that pipe etiquette provided a barrier to safer use was mitigated by knowledge about the risks of sharing equipment. Therefore, caring for self and others took precedence. Women recognized that by being supportive in offering their crack to another woman in need, they were inadvertently exposing both themselves and the other person to potential harm and the spread of infections. Participants expressed a great sense of camaraderie, with women caring for each other by supporting and encouraging the sharing of experiences and stories, and respecting other’s opinions. Group interviews provided women an opportunity to care for the self by receiving support and encouragement from a positive group of women. Participants often nodded in agreement, put their arms around each other, or simply encouraged another to express their opinions, even if they were not always in agreement.

Learning About Safer Crack Use to Care for the Self and Others

The process of how women internalized and consequently applied new information pertaining to harm-reduction practices was described as a process of learning. Learning about the harms associated with crack use and how to reduce those harms was fundamental to engaging in safer practices. How participants gained new understandings about harm-reduction approaches, services, and resources occurred through personal experience, informal learning, and formal learning.

Personal experience. The negative experiences women had were a major theme that surfaced regarding the motivation for changing crack use practices. Many women attributed contracting an infection to sharing a crack pipe. These infections ranged from low severity such as a cold sore to more serious infections including pneumonia, tuberculosis, and hepatitis C. Participants recounted their experiences with treatments for the infections; they expressed how they wanted to ensure they never passed infections to others, and refused to share pipes:

So now that I know what’s wrong with me I let them know, and if they get upset I just let them know. I say, “Look, this is what is wrong with me, and I don’t want that to happen to you because I’d have to live with it the rest of my life.”

Previous experiences with drugs other than crack were strong motivators for health-promoting behaviors. One participant recounted how she lost her eye because of an infection acquired while she was using heroin:

I, I lost my eye because when I was doing heroin, I would share with my girlfriend and this is really sick, I wouldn’t talk about this. But, um, fourteen, sixteen years ago she, she would always take so long that I’d, yeah, I’d do a quick hit of her blood [injecting the friend’s blood into her own body]. So I was down to ninety-eight pounds. I was really sick, and the weakest part of your body—I had no immune system, so it shut down, and it went to the
weakest part of my body, which is my left eye. They [health care providers] had to take it out. They thought it was flesh-eating disease.

Even though this participant used a different drug and different equipment, the physical trauma of her experience led to newfound knowledge about disease transmission and sharing drug equipment. Her experience translated into her drug use generally and partially explained her refusal to share her pipe. It became evident that women’s interactions with each other served as an important medium for the sharing of information with regard to safer use practices. These interactions served as the next major category, informal learning.

**Informal learning.** Acquiring and disseminating knowledge about minimizing the risks associated with crack was another way the women cared for themselves and others. Knowledge acquisition occurred via two learning modalities, informal and formal. Our findings related to informal learning were guided by Livingstone’s definition: “Any activity involving the pursuit of understanding, knowledge or skill which occurs outside the curricula of educational institutions or the course of workshops offered by educational or social agencies” (1999, p. 51). Learning in this context was mainly the result of interactions with friends, romantic partners, and peers. A peer, as outlined by Johnson et al. (2008), is an individual closely associated with the DTES community and currently using crack. Formal learning was defined as the pursuit of knowledge that occurs within the curricula of educational institutions or social agencies (Livingstone), such as VANDU in the DTES.

The concept of learning, in both the informal and formal senses, was influenced by relationships. Women reported that they learned how to limit some of the harms associated with crack via word of mouth and information provided by friends or romantic partners. Friends would adopt the practice of never sharing pipes or incorporated mouthpieces into their crack-use practices. A mouthpiece is a piece of rubber tubing applied by each individual using the pipe; therefore, infection transmission is limited by providing a physical barrier when sharing the pipe. The reported rationale for this new practice would be shared with others in the community to care for one another. A chain reaction reportedly developed, with groups of women acquiring knowledge from each other, and was integral to caring for the self by providing women with the knowledge necessary to prevent harm. Participants stated that they discussed a number of topics with friends and peers, including the importance of never using someone else’s pipe, carrying a mouthpiece to limit the spread of infections, and limiting impurities in crack.

Participants were also concerned with harmful “fillers” added to crack sold in the DTES, a pressing issue because crack is an illegal substance, rendering it inapplicable to regulatory standards (Bungay et al., 2009; Johnson et al., 2008). Some filler substances included dangerous additives with serious health consequences, including “speed,” crystal methamphetamine, and the pig deworming medication levamasol. Because of the potential harm from use of these fillers, women cared for the self by learning and adopting practices such as “recooking” crack (heating the crack prior to smoking it) to burn off excess and potentially harmful filler substances. The rationale given for this practice elucidates caring for the self:

I used to use the drug, the rock, without ever checking it or anything. Literally, just shoving it in my pipe and smoking it. How I’ve changed is, over the years is that I recook it, and make sure that everything is out of there except what I actually wanted to purchase.

Another aspect of informal learning was women engaging in informal information sessions during the group interviews. Women’s conversations with each other regarding their unique and diverse experiences were a vehicle for the dissemination of harm-reduction practices. At the heart of these conversations was the process of women caring for each other by expressing genuine concern for one another’s well-being, exhibiting the core process of caring for others. Witnessing participants sharing harm-reduction information with each other in the group interviews was particularly relevant. For example, one participant who was new to the neighborhood asked where others in the group obtained their crack pipes, and several participants enthusiastically provided information: “You can get pipes at WISH [local drop-in center for women], but you know the RainCity [local charitable organization] van? They only carry 15 pipes. If you try and get there, that’s real Pyrex pipes from RainCity.” “They’re two vans. There is the white van and the other van she’s talking about, the black van with kits. The kit has a push stick, a lighter, a pipe, alcohol swabs, screens, condoms, and band-aids [adhesive bandages].”

Women had a wealth of knowledge about resources, with some having more extensive information than others. During the group interviews there was a strong sense of caring and compassion that participants expressed toward one another, with gentle head nodding to express understanding and utterances of encouragement and support. Personal relationships provided new information about harm-reduction practices and resources, and the compassion and support women expressed to one another was an important aspect of internalizing and applying the new knowledge that demonstrated the reciprocity of caring.

**Formal learning.** Formal learning in the context of this study involved receiving information about harm reduction in a formal workshop, support group, or education session,
or from interaction with a health care professional. This information was crucial for women to actively care for themselves and others by gaining solid understanding of the harms associated with crack use, and how to reduce harms. The women spoke highly of the harm-reduction workshops/education sessions they attended, stating that they were helpful and informative:

Because I didn’t know nothing about that, because I used to share when I had my place down here. And you end up thinking about it too. With all the sharing and all that, you end up changing your mind because you don’t want to get sick. You want to stay healthy, and it’s good to hear about it, good to learn about that.

Participants appreciated the nonjudgmental approach of staff that ran the sessions, and felt comfortable asking questions and receiving guidance with regard to certain practices. This approach to health service illuminates care by others, and is essential to promoting women’s efforts to care for the self and others. When women were asked how they came to attend harm-reduction workshops or education sessions, the ever-present motif of networking among friends and peers, and thus caring for others in the community, was made visible again. Participants noted that the tight-knit nature of the community promoted word of mouth that fueled the spread of information pertaining to organizations in the community that provided valuable information about safer crack use and equipment to use crack safely. One participant, when asked how she came into contact with VANDU, stated,

Through a friend, you know? Through [name]. See that guy right there [pointing to a picture on the wall]? . . . Yeah, he told me where my cousin was and about VANDU. I have a lot of respect for [name] and [name] to this day.

The above excerpt demonstrates how the relational aspect of women’s lives contributed to safer practices, shedding light on the importance of relationships in not only informal learning, but creating the link to facilities where formal learning occurred. Once women, through networking, came into contact with a resource, accessing equipment (the final thematic process) was achieved. Therefore, the relational aspect of women’s safety impacted their access to and use of equipment and services.

**Accessing Safer Equipment to Care for the Self and Others**

For women to care for the self and apply safer crack-use practices, participants emphasized the need to access crack-use equipment. The education women received about safer use from informal and formal settings was of limited use if the equipment needed for safer use was not readily available and accessible. The major issues with current sources of safer equipment were resource insufficiency and limited hours of operation. Late evening/early morning hours were particularly problematic, with limited options to obtain a pipe other than from people selling them on the street. Buying a pipe off the street “can get pretty expensive,” with pipes generally sold for $5 or more, compared to $2 at VANDU—a large increase for women on fixed incomes who must use scarce resources to purchase a pipe.

Participants reported concerns about the pipe exchange in operation in the DTES, because it was strictly an exchange: “They shouldn’t say that you have to exchange your pipe. They should give you a pipe for that to be harm reduction.” Women emphasized that an exchange hindered caring for the self because there were times when “you break a pipe and dispose of it safely in a sharps container.” People who disposed of broken equipment safely became unable to obtain a new pipe via the exchange:

So they have a sharps container in my hallway and my pipe broke and I thought, well I can go in and get a new one on Monday. But I forgot that it was an exchange. . . . So I put it in that sharps container right then and there, and I lost out on a pipe because of it. And it was hysterics [for me], and I understand how people feel that don’t have a pipe when they need one: the anxiety builds up, the adrenaline starts pumping.

An additional concept raised was that of a safe inhalation room for women. Based on the idea of a safe injection site, there has been discussion in the city about establishing inhalation rooms. The discussion of the role of such a room is complex in facilitating women’s capacities to care for themselves. There was complete consensus among the women regarding the need for a safe place for women to smoke crack, but concerns arose about the design of such a place. Many women expressed opposition to a large inhalation room. They believed it would be completely “chaotic” and potentially threatening. This perspective was based on women’s experiences with crack, and that crack use can result in very unpredictable behaviors. An inhalation room was viewed as a potential barrier to caring for the self:

I just cannot see a bunch of rock stars [people who smoke crack] smoking in a room and keeping to themselves in their own corner without any, um, hostility happening. It’s just absurd. . . . It can’t go on like hitting the pipe one after the other because,
I mean, people get very strange. It’s not like other drugs where they could hang out.

Group interview discussions related to inhalation rooms often developed into brainstorming sessions, with suggestions such as having small, booth-like rooms, “like a portable bathroom” suggested by one participant. Others agreed with the concept of small rooms, but with time limits enforced to keep order and ensure everyone had an opportunity to use the room. The women’s overall consensus was that women require an environment conducive to caring for the self, where safety is paramount.

The key when considering the processes women applied to engage in safer use is appreciating that safer practices were incumbent on more than one process. Safer crack use required integration of the four processes: establishing a safe physical space, building trusting relationships, learning about safer crack use, and accessing safer equipment. The intersection of these processes ultimately enabled women to promote and sustain caring for the self and others. Women’s relationships allowed them to learn about safer use and become connected to necessary services. Once connected to services, access to equipment was facilitated. Knowledge about safer crack use and possession of the equipment necessary for safer use only had meaning if a safe place to use crack was available.

Women’s application of these processes to practice safer crack use revealed larger contextual factors (e.g., spatial environment, politics, and economics) that influence safer crack-use practices. Violence was identified as a prevalent theme in the spatial environment and a barrier to safer use, and posed a threat to overall health. Therefore, women shifted use to the inside of their homes to avoid violence outdoors. Affordable housing is becoming increasingly scarce in the DTES (Roberston & Culhane, 2005), reflecting a political agenda that impacts women’s application of these processes to practice safer crack use. Limited financial resources was identified as an impediment to safer use practices because strained incomes created difficulty for women to obtain the necessary equipment to use safely. Promoting safer crack use among women requires understanding the identified processes essential to caring for the self and others, and the greater contextual factors that impact these processes must be taken into consideration.

**Discussion**

Safer drug use practices have been studied previously, but there remains a dearth of research about women’s safer use practices with crack cocaine. To our knowledge, this study is the first to investigate safer crack-use practices among women. In this study we were able to develop an understanding of how women minimize the harms associated with crack use. The nascent theory that developed supports the growing movement emphasizing the impact of the environment on health and health behavior (Navarro & Mutaner, 2004; Rhodes et al., 2005). Women’s awareness of the harms associated with crack and their active involvement in managing their health by taking steps to minimize these harms was supported by our study (Bungay, 2008; Bungay et al., 2009; Johnson et al., 2008; Malchy et al., 2008). This preliminary theory accentuates women’s agency, and their capacity to take control of their health and facilitate others in doing the same.

Those in the field of public health in particular have emphasized the role of social and structural factors in health outcomes (Navarro & Mutaner, 2004). Specifically, the social epidemiology literature sheds light on how sociocultural, political, and economic inequities fundamentally shape health outcomes in populations (Rhodes et al., 2005). Much of this research has been focused on HIV transmission, shifting the focus from the individual to the social and articulating that “the health of individuals and communities is an embodiment of their social condition and secondly that improvement requires social and structural change” (Rhodes et al., 2012, p. 207). Our work reiterates the emphasis of this literature by drawing attention to the fact that health cannot be separated from political economy and political ecology (Krieger, 2008). The social epidemiology literature has also drawn attention to “structural violence” (the impact of poverty, gender inequality, and racism) on health and health behaviors (Walter, Bourgois, & Loinaz, 2004). Our findings demonstrate how structural violence contributes to constraints in women’s agency, which leads to unequal opportunity and social suffering among women who use crack (Galtung, 1990).

In addition to structural violence, violence itself was a prevalent theme. Women identified the spatial environment of the DTES as a barrier to safer use because of violent experiences. Violence presents a major threat to overall health and well-being (Bungay et al., 2010; Butters & Erickson, 2003; Varcoe & Dick, 2008), and women altered their use practices to minimize this threat by using indoors, most often in their own homes. Therefore safe, personal places are necessary to maintain women’s safety while engaging in crack use. The literature emphasized the prevalence of violence in the lives of women who use crack, and the necessity for women to access safe places where they can engage in crack use (Bungay et al., 2009; Bungay et al., 2010). Affordable housing in the DTES is declining and reflects political decisions that have great implications for women’s safer crack-use practices (Robertson & Culhane, 2005).
To establish safer crack-use places in the DTES, a major shift must first occur within social programming to uphold the principle of equity and develop more affordable housing. Gentrification in the DTES has contributed to the lack of affordable housing (Bungay et al., 2009). Stable housing has been linked to health outcomes, because it is identified as one of the major health determinants (Bryant, Raphael, & Rioux, 2006). The necessity of a safe place in the context of harm-reduction programming highlights the need for an environment within which women can be free of worry regarding potential threats of violence (Bungay et al., 2009). The lack of safe spaces and the need for safe indoor spaces where women can use crack have been described (Bungay, 2008; Bungay et al., 2009; Johnson et al., 2008; Malchy et al., 2008).

The lack of safe places for women to use crack, and particularly the dearth of affordable housing, highlight the impact of economics on safer use practices. The reality for most women residing in the DTES is a life of extreme economic constraints (Bungay, 2008; Bungay et al., 2010) that have deleterious health impacts. This evidence and our study findings support the conceptualization of economic status as a determinant of health (Bryant et al., Rioux, 2006). All women who participated in this study were receiving income assistance of $658 per month (British Columbia Ministry of Social Development, 2008), an indisputably limited amount of money to cover all living expenses in one of the world’s most expensive cities. Economic constraint impedes safer use practices when women must choose between buying equipment at inflated prices or sharing to conserve limited financial resources.

Regarding the environment and drug use practices, much of the literature to date has focused on illustrating the harmful impact of the risk environment on safer crack use (e.g., Latkin et al., 2005; Maas et al., 2007; Rhodes et al., 2005). In this article we have stressed how women’s capacities contributed to an enabling environment, with women actively supporting each other to minimize drug-related harms. This demonstrated capacity to care has resource implications. Public health and health-promotion programming should be developed on the basis of women’s relationships and the support they provide one another in the context of safer crack use. Duff (2009) emphasized that effective harm reduction relies on the adoption of specific relations of care and reciprocity between individuals and groups within particular drug-use settings. In doing so, a culture of care is created, which enhances resiliency among individuals in addition to reducing the experience of harm (Duff, 2009). Women empathize with each other and seek to alleviate suffering when they witness it in another woman who is in need of crack and unable to obtain it. Women’s relationships dictate how they engage in safer crack-use practices and are vital to understanding how women’s safer use unfolds.

Despite women’s demonstrated proficiencies, a major but not surprising finding was that resource insufficiency (specifically, lack of equipment) is a barrier to women’s safer crack-use practices. This is the case despite local agencies’ efforts to meet the demand for supplies (most notably pipes). The demand for safer supplies exceeds the capabilities of local agencies, including VANDU, to provide for all in need. Increased availability of equipment is an instrumental factor in the reduction of sharing practices and reducing the spread of infections (Johnson et al., 2008; Leonard et al., 2006; Malchy et al., 2008; Strike et al., 2006). An awareness that crack use continues to rise in the DTES, specifically among women, necessitates an emphasis on ensuring accessibility and availability of equipment. Increasing the availability of pipes, especially in the late evening hours, is crucial because women have few choices other than to buy from people selling pipes on the street at inflated prices.

Transitioning to facilities where pipes are available and accessible without the caveat of an exchange is also essential and would eliminate the need for pipe depots. Pipe depots (sites where old pipes can be exchanged for new ones) are an obsolete approach to increasing accessibility (Leonard et al., 2006). Furthermore, outreach services such as mobile vans that deliver supplies, including safer crack-use kits, are a valuable service for increasing accessibility (Johnson et al., 2008; Strike et al., 2006). Outreach efforts would benefit the women in our study with mobility issues from degenerative and musculoskeletal complications. In the absence of the necessary equipment and resources to practice safer use, women’s knowledge and capacity to manage their health in the context of drug use cannot be fully realized.

The idea of a drug consumption room for inhalation such as those currently operating in Europe (Hendrich, 2004; Wolf, Linseen, & Graaf, 2003) requires further investigation because of the complexity inherent in determining what a safe space is. Concerns about what a safe crack use facility would entail do not detract from the fact that a safe place is fundamental to women’s safer crack use. Pilot studies would serve as an effective means to investigate the feasibility of small, individual cubicles and allow for the application of ground rules, including time limits, to avoid lines and long waits. Eliciting women’s opinions on what a safe place to smoke crack should be is necessary. Consultation and collaboration with women about their needs for a safe crack smoking site would increase the acceptability and usefulness of the facility. Regardless of the design, the establishment of a safe, legal place for women to use crack will require the support of local government. The emphasis remains on injection drug use (Bungay, 2008; Bungay et al., 2009), despite the evidence of increased rates of crack use,
especially among women in impoverished neighborhoods (CHASE Project team, 2005; Lejuez et al., 2007).

We would be remiss not to draw attention to the over-representation of Aboriginal women in the study sample. It has been estimated that 10% of the residents of the DTES are of Aboriginal ancestry, a finding that illustrates the devastating effects of colonization that continue to impact Aboriginal people to this day (City of Vancouver, 2006). Aboriginal women continue to experience worse health outcomes than other Canadian women, and are disproportionately affected by poverty and violence. Better understanding the challenges Aboriginal women residing in the DTES continually face is imperative for the development of programs to address the unique harm-reduction needs of this group of women.

This study was limited in several respects. It was a small study limited to a particular sample of women residing in a neighborhood in one Canadian city. Furthermore, sample bias was evident because VANDU is not a youth-based service; therefore, the sample represented a population of older, high-functioning women. The findings reported here do not speak to the needs of younger women who use crack and reside in the DTES. Research is needed to understand the needs of younger women.

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