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Evaluation of *Harsh Reality*: A sexual health print-based resource for street-involved youth

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Abstract

Introduction: Street-involved youth are one of the populations most at risk for elevated rates of sexually transmitted and bloodborne infections. This paper evaluates the suitability and success of a resource focused on health education with a population of street-involved youth in Winnipeg, Canada.

Method: Using a mixed method approach, quantitative and qualitative data were collected and analysed. Surveys involving both structured and semi-structured questions were administered orally to 100 participants. Three gender-stratified focus groups (total of 23 participants) were also conducted. Focus groups were recorded and subsequently transcribed. Empirical data was used to calculate frequency distributions, supported by a general inductive analysis of qualitative data.

Results: From the interview and focus group data, the majority of participants had a very positive perception of the resource. However, in terms of specific knowledge uptake, participants displayed a lack of recall of the specific items measured in the evaluation, such as local HIV testing facilities, types of HIV tests available and specific information pertaining to recent research conducted in Manitoba with street-involved populations.

Conclusion: Both passive distribution of the resource through service-providing institutions and active distribution in the street were effective approaches for exposing a wide range of street-involved youth to the resource. Poor recall of specific knowledge objectives suggests alternate methods of presenting key fact-based information are necessary to increase resource efficiency. Articles must be created at an appropriate reading level for the street-involved population to improve reader engagement. The ability for the target population to identify that the resource is grounded in language, art, interests and lived-experiences of the street-involved youth was well-received and facilitated interest in looking through the resource and credibility of information.

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Street-involved youth, sexually transmitted infections, print resource, evaluation

Introduction

Amongst most youth, a lack of knowledge about sexually transmitted and bloodborne infections (STBBI) is one factor that contributes to the transmission success of these infections. Opportunities exist within many school systems to learn about sexual health and STBBI, however, street-involved youth are at a disadvantage as they have a lesser likelihood of being in school and hence a lesser likelihood of having access to educational materials related to STBBI.[1] In Winnipeg, Manitoba, Canada, *Harsh Reality* is a health resource that attempts to partially fill this educational gap. It was designed and created by a working group of street-involved youth in collaboration with a local research nurse (author MO on this paper). Intended primarily as a hard-copy print resource, an online version is available for viewing.[2] Now in its fourth edition, it was published with the support of Kali Shiva AIDS Services, AIDS Community Action Program and the Public Health Agency of Canada. *Harsh Reality* is a hybrid of factual information, coupled with art and written experiences submitted by local youth. The range of topics is broad, including health and nutrition, drugs and alcohol, mental health and gangs, with a primary focus on sexual health and STBBI. Resource distribution mechanisms directly targeted street-involved youth. Of the 1,000 copies of *Harsh Reality* distributed in Winnipeg in 2008, approximately 70% were distributed passively through facilities (e.g. multiple copies left at a centre frequented by youth for them to take as they wish), while the remaining 30% were actively distributed via individuals handing out booklets directly to youth encountered in the street (20%), or to friends and family of the youth working group (10%).

Our research group focuses on understanding the epidemiology of STBBI amongst vulnerable populations and more recently on the development and delivery of educational materials to these populations. Given the inclusion of information about STBBI within *Harsh Reality* and its attempt at delivering this information in a manner that specifically targeted street-involved youth, our group used this opportunity to assess the effectiveness of targeted resources of this type. With the exception of the author noted above, the remaining authors of this study were not directly involved in the production of *Harsh Reality* nor in its distribution; therefore the evaluation plan described here was conceived and developed after resource distribution had taken place, necessitating a study design that relied only on post-distribution data. This paper evaluates the distribution process of *Harsh Reality*, youth perceptions of the resource and whether there was evidence of resource-specific knowledge uptake.

Methods

Evaluation design

Our evaluation consisted of three main objectives: 1) an examination of the distribution process to determine whether the target audience for *Harsh Reality* (i.e. street-involved youth approximately between the ages of 14 and 24) had actually received and/or was familiar with the resource; 2) an evaluation of youth perceptions of the resource (to ensure that a lack of knowledge uptake was not due solely to disinterest or a dislike of the resource) and 3) an evaluation of knowledge uptake. To assess knowledge uptake, youth were queried about several aspects of HIV that were featured within *Harsh Reality* — interview questions focused on where HIV testing could be obtained in Winnipeg and what type of tests and testing options were available (e.g. nominal, non-nominal,

anonymous and the availability of HIV rapid tests). Youth were also questioned about their recall of Research Round-Up (RRU) articles contained within *Harsh Reality*. These articles ranged in length between one-half and two pages and provided summaries of recent STBBI research studies in Manitoba. Overall, given our specific interest in STBBI, our focus on these specific knowledge points would allow us to determine whether this type of fact-based information had been effectively conveyed within the format of *Harsh Reality*.

Recruitment strategy

Objective 1 was carried out as part of the overall study participant recruitment strategy. Objectives 2 and 3 were based on data from individual interviews or focus group discussions. Our method for recruitment involved study staff approaching youth in public areas primarily in the downtown core of Winnipeg or other neighbourhoods frequented by street-involved populations (and focusing on areas where *Harsh Reality* had previously been distributed). Study staff approached potential participants who appeared to be in the target age range (14–24), showed them a copy of *Harsh Reality* and asked if they were familiar with the resource. 'Familiar with the resource' was defined as recognizing the cover, the title or having received or read a copy. If youth indicated familiarity with *Harsh Reality*, staff explained the evaluation and asked for their further participation in the study. This process was planned to continue until 100 youth had been recruited who were familiar with the resource and who were willing to provide consent to continue with the interview. A target sample of 100 was chosen as one that was feasible in terms of staff time and available resources for data collection, and was able to provide sufficient data to identify quantitative trends. During the recruitment process, study staff kept records of the total number of youth encountered, observable demographic data (gender, ethnicity), as well as the number of youth who were and were not familiar with *Harsh Reality*. These latter data elements were intended to provide quantitative data relevant to objective 1.

After beginning data collection, it became apparent that it was challenging to find youth who were familiar with *Harsh Reality*. We therefore modified the process such that youth who expressed an interest in the study, but were not previously familiar with *Harsh Reality*, were given an opportunity to participate. They were provided a copy of *Harsh Reality* and as much time as they desired (usually approximately 15 minutes) to look through the resource and then participate in the interview. Although this modification to recruitment would clearly impact the likelihood of knowledge uptake, it still provided an opportunity to query youth regarding their initial perceptions of *Harsh Reality*. Additionally, and as noted below, the poor knowledge uptake by any youth in the study (regardless of how long they had been in possession of *Harsh Reality*) meant that little distinction between youth was required.

Individual interviews

Recruitment and interviewing occurred between October 2009 and March 2010 (approximately one year post-distribution of *Harsh Reality*) and incorporated concurrent qualitative and quantitative data collection, employing a triangulation approach.[3] Interviews were conducted orally and staff wrote down participant answers verbatim. The introductory section of the interview asked participants to identify demographic information and method of receiving the resource. The second section consisted of structured and semi-structured questions and asked youth about their general perception of the resource. The last component focused on specific learning outcomes

and knowledge uptake. Interviews lasted 10–15 minutes. At the conclusion of the interview, each participant received a $10 honorarium.

Focus groups

Individual interviews were supplemented with data collection from three focus groups of street-involved youth (one female group, one male group and one mixed-gender group). Study staff used many of the same questions asked of individual participants but the focus group format allowed for more detailed discussion to occur. Focus group participants were recruited from youth-oriented community resource centres. Overall, 23 youth participated: seven participants in the mixed-gender focus group (one female), six participants in the female focus group and 10 participants in the male focus group. Depending on the focus group, from one-half to three-quarters of focus group members were familiar with *Harsh Reality* prior to enrolment. At the conclusion of the focus group, each participant received a $20 honorarium.

Data analysis

To assess distribution success, familiarity with *Harsh Reality* was used as an outcome variable, while predictor variables consisted of gender and ethnicity. Chi-square and multiple logistic regression were used to assess associations between outcome and predictor variables. Empirical data from individual interviews was coded and used to calculate frequency distributions. Qualitative responses from the individual interviews were compiled and analysed using a general inductive approach.[4] Recorded data from focus groups were transcribed by an evaluator and analysed in a similar manner as the qualitative data noted above.

Ethics

Ethics approval for study instruments and methodology was obtained from the University of Manitoba's Health Research Ethics Board.

Results

Participants

Overall, 375 youth were contacted at 62 different locations in order to recruit 100 individual interview participants. Study staff recorded gender and ethnicity of these individuals as 197 (52.5%) males and 178 (47.4%) females; 227 (60.5%) Aboriginals, 106 (28.3%) Caucasians and 42 (11.2%) 'other' ethnic groups (e.g. Black). Of the subset of 100 individual youth enrolled, 58 were male and 42 were female; 45 were Aboriginal, 38 Caucasian and 17 were 'other'; 61 were either currently in school (41) or indicated successful graduation from grade 12 (20). Of the 100, 55 had seen *Harsh Reality* prior to contact by study staff.

Objective 1: Assessment of Harsh Reality *distribution*

Overall, 98 (26%) of the 375 people contacted on the street indicated familiarity with *Harsh Reality*. Of these 98, 75 could specifically recall how they had initially seen the resource; 35 (36%) received the resource via passive distribution (e.g. through a drop-in centre or shelter) with 14

Table 1. Perceptions of *Harsh Reality*.

Inclusion of personal stories
'The personal stories and scenarios make [*Harsh Reality*] personalized. It really has happened'.
Content was written from the perspective of peers
'It gives you somebody to imagine sitting there telling the story to your face rather than just reading it. It got through their emotions as well'.
'You can tell it's aimed towards like youth, people that are street-involved. You can tell it's for that kind of a crowd…especially the stories and stuff and it's just like from one person speaking to, like, us through the book'.
Information sharing in a 'straight-up', direct delivery style
'[*Harsh Reality*] is like reality smack into your face, and that's what's good about it'.
'The information was straight-up…that makes [*Harsh Reality*] understandable'.
'It felt good to see that [language] there because it means that a real person was writing that'.
'I don't like it when stuff is candy coated. Like in school, I hate it when stuff is like candy coated and they're trying to make stuff sound nice. [The language] should probably be even more harsh'.
Use of artwork
'I like the lay-out. [*Harsh Reality*] is art oriented'.
'I like the graffiti art; it's more street-oriented. It reminds me of living on the streets'.
'I liked that most pictures have something to do with what the page is talking about'.

(14%) indicating receipt via active distribution. A further 16 received the resource from a family member or friend, indicating some secondary distribution within the population had occurred.

Chi-square testing indicated differential receipt of *Harsh Reality*. For gender, 20.2% of females indicated familiarity with *Harsh Reality* vs. 31.5% of males ($p = 0.013$). For ethnicity, 29.2% of Caucasians and 27.8% of Aboriginals indicated familiarity vs. 9.5% of 'other' ethnic groups ($p = 0.033$). Both variables remained in a multiple logistic regression model; males were more likely (odds ratio (OR)=1.9, confidence interval (CI) of 1.2–3.0) while 'other' ethnic group were less likely to indicate familiarity with *Harsh Reality* (OR=0.3, CI of 0.1–0.8).

Objective 2: Perceptions of the resource

Participants were generally positive about all aspects of *Harsh Reality.* Of the 100 street interviews, 49 and 44 individuals indicated they 'strongly liked' or 'liked' the overall appearance and design; 96 thought it contained valuable information. However, only 29 individuals indicated they had read all, about half, or at least one-quarter of *Harsh Reality*, suggesting that even some individuals who had the resource in their possession prior to the interview had not read the material in depth.

Qualitative comments from individual interviews or focus groups provided a greater depth of understanding of the positive elements of the resource (relevant qualitative quotes in Table 1).

Participants expressed that they liked the inclusion of personal stories and poems and that reading about topics presented in this manner was more personal than articles based principally on statistics and facts. Participants sensed, and responded positively to, the perception that the resource was created by fellow street-involved youth. The direct manner of sharing information, including the use of slang and profanity, was also important to participants, and resulted in a 'straight-up' delivery style. Finally, the use of specific types of art (e.g. graffiti style) and the matching of art with accompanying text resonated strongly with participants.

Objective 3: Knowledge uptake

Although most interview participants were able to suggest at least one possible location for HIV testing in Winnipeg, the majority of these responses were locations where one could seek a variety of medical services (e.g. hospital, doctor), and were not necessarily suggested because participants knew that the location offered HIV testing. Twenty-four individual participants and one focus group member were able to correctly identify a specific testing site that is mentioned in *Harsh Reality*, however, when asked only one of these individuals cited learning this information from *Harsh Reality*.

The majority of participants (72) were unable to identify the types of HIV tests discussed in *Harsh Reality* (patient identification by name-based/nominal, coded/non-nominal, anonymous and the availability of HIV rapid tests). The few individuals who did know this information either could not remember how they learned it or they knew because they had undergone testing.

Individual and focus group participants were also queried as to their recollection of four RRU articles. When these articles were developed, attempts were made to use 'non-academic' language to assist with comprehension. Each RRU article had at least one graphic to supplement the text.

Participants were presented with a series of prompts when asked to recall RRU articles. Initially, participants were asked if they recalled any RRU articles with no prompts, then shown a list of RRU article titles, and then shown the graphics corresponding to RRU articles. With no prompts, only 14 of the 100 interview participants indicated remembering or reading a RRU article; this number climbed to 59 after viewing a list of the four RRU titles and to 70 after being shown the images associated with each article.

An article entitled 'Female Caucasian Meth Users Most Likely to Share Needles' was most commonly remembered by participants. In addition to a humorous graphic (see p. 122 of the resource), this article displayed the shortest word count compared to the other RRU articles (247 words) and was written at the most accessible reading level (approximately grade six based on the Flesch-Kincaid Readability Score).[5] Comments from participants suggested readability was a factor in whether articles were read or remembered (see Table 2).

Discussion

Evaluations of print resources are relatively rare in the literature,[6–11] and we were unable to identify any that specifically involved street-involved youth. A common theme within these articles is the link between reading level and comprehension. Our research is consistent with this finding, however, at least in terms of a street-involved population, it appears that the style and manner in which articles are written may be equally or more important. Given that print resources for youth tend to be fact based, our results suggest that this manner of conveying information may be having minimal effect. Despite a strong positive reception to *Harsh Reality*, specific knowledge uptake of fact-based information contained within the resource was poor. Given the positive comments

Table 2. Opinions relevant to knowledge uptake.

Negative perceptions related to reading complexity
'It seemed like [the articles] were a bit long and some of the words were big'.
'Some people can't read big words'.
'For the Research Roundup Articles, I saw them but I didn't read them. I didn't know what they mean'.

towards personal stories, a better approach may be to include narratives from people who have personal experience in a given topic area (e.g. personal stories and descriptions by persons who have undergone an HIV testing process as opposed to a list of sites offering testing and a description of HIV test types). Participants' connection with personal stories written by individuals with similar life experiences is congruent with existing research. Many street-involved youth have experienced a tumultuous home life before ending up on the street.[12] In these cases, Haldenby et al.[1] note that a sense of family abandonment can lead youth to develop a deeper connection to other individuals with similar experiences. In turn, when youth read about the experiences of other youth, this connection may open a unique communication channel in which valuable prevention information can be shared.

For individuals who may not read a resource in depth, another strategy to aid recall would be to repeat key information in multiple locations and in multiple formats throughout the resource. Use of strategic repetition, the inclusion of colourful, engaging and relevant images and a reduction of the amount of text and reading comprehension level could be applied to encourage readership.

Both active and passive distribution methods were mentioned by youth as the means by which they had received copies of *Harsh Reality*. Similar to secondary syringe exchange,[13–14] some secondary distribution of the resource also appears to have occurred, suggesting that some youth perceived *Harsh Reality* as valuable enough to pass on to others. In comparison to the proportion distributed by passive means (70%), a smaller percentage of youth specifically cited receipt via this mechanism (36%). Although this finding emphasises that all methods of distribution are valuable, active distribution is an important mechanism to ensure that youth not accessing services still have an opportunity to be exposed to resources of this type. Notably, in our locale, females and 'other' ethnic groups were less likely to have seen *Harsh Reality*. Although these specific results could vary from city to city, it emphasises the importance of documenting differential receipt to ensure that public health efforts at provision of materials do not inadvertently further marginalise portions of an already marginalised group. Finally, extrapolating from our sample of 375, our data suggests that approximately one-third of Winnipeg's street-involved youth between the ages of 14 and 24 received *Harsh Reality* during the initial distribution. Assessments of distribution success are valuable in estimating the quantity of resources needed in future to reach all or most members of a population of this type.

A limitation to the individual interview data is that approximately half of the interview participants (45) and some focus group participants had not seen *Harsh Reality* prior to the evaluation. While these participants were given time to look through the resource, it is unlikely that they could familiarise themselves with a 240-page resource in such a short period of time. However, even if all participants had indicated previous knowledge of the resource, it is unlikely this would have had a major impact on the results given the consistently poor recall of the fact-based articles amongst all study participants. Similarly, the absence of pre-distribution questionnaire data for the assessment of pre- and post-distribution knowledge gain is not an issue, again given the poor recall by participants of the specific factual information within *Harsh Reality* that was used as the basis for assessing knowledge gain.

Poor recall was largely attributed to readers' perception that the article was too difficult to read, highlighting the importance of reading level and ensuring that information is presented in formats that appeal to the target audience. This study draws attention to the value of engaging in dialogue with the target population in order to learn about their perceptions of a prevention resource, instead of deciding 'what's best' in their absence. Incorporation of elements that resonate as 'peer', such as personal narratives, artwork created by that population and use of language is highly important

to the acceptance of the resource. Partnerships between resource developers and street-involved populations can be used to help create more effective resources for these populations that reflect their opinions, interests and values.

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Conflict of interest statement

None declared.

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