DEBATES

Applying the principles of knowledge translation and exchange to inform dissemination of HIV survey results to adolescent participants in South Africa

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SUMMARY

It is widely accepted that researchers have an obligation to inform survey participants of research results. However, there is little evidence on the effectiveness of various dissemination strategies. The emerging field of knowledge transfer and exchange (KTE) may offer insight given its focus on techniques to enhance the effectiveness of communicating evidence-based information. To date, KTE has focused primarily on information exchange between researchers and policy-makers as opposed to study participants; however, there are principles that may be relevant in this new context. This gap in the literature becomes even more salient in the context of public health research where research results can reveal particular misunderstandings or shortcomings in knowledge that threaten to severely compromise participants' health. The objective of this article is to describe how KTE principles were used to inform dissemination of results of a self-administered sexual health survey to adolescent study participants in a resource-deprived, peri-urban area of South Africa. Strategies for enhancing two-way information exchange included constructing interactive dissemination sessions led by young, isiZulu fieldworkers. We also employed techniques to create a safe space for dialogue, encouraged the shared ownership of results and crafted targeted messages. Particularly noteworthy was the benefit accrued by the research team through this process of exchange, including novel explanations for study findings and new ideas for future research.

Key words: HIV; knowledge translation and exchange (KTE); youth

INTRODUCTION

Given the urgency of halting the spread of HIV in high-prevalence areas, policy-makers and programme developers require accurate and current information on sexual health knowledge, attitudes and behaviours in these settings. Survey research is an efficient and popular way to collect these important data. How this information is used, however, is not always clear to survey participants. The International Ethical Guidelines for Biomedical Research Involving Human Subjects articulate the requirement that ‘...after the completion of the study, subjects will be informed of the findings of the research...’ [Council for International Organization of
However, the existing literature provides little guidance on how results ought to be reported back or the effectiveness of various dissemination strategies, particularly to young people in resource-limited settings.

Certain forms of research include ongoing engagement with participants as an integral element of their methodologies. For example, the philosophy underpinning participatory action and community-based research involves engagement with participants throughout the project in a process of co-constructing results (Israel et al., 1998). This commitment to engaging those affected by research in the research process is consistent with the principle of ensuring the participation of the target population in the development of health promotion programmes (World Health Organization Regional Office for Europe, 2002). However, surveys and other forms of research located within a positivist paradigm are often predicated on a distancing between researchers and participants in order to optimize objectivity. Therefore, in contrast to more participatory methodologies, neither the strategies nor fora for reporting back study results to participants are an inherent part of the research enterprise.

The emerging literature on knowledge transfer and exchange (KTE), which is gaining popularity in resource-rich countries in particular (Mitton et al., 2007; Strauss et al., 2011; Tugwell et al., 2011), has the potential to help address this challenge. KTE research includes the assessment of techniques to enhance the effectiveness of communicating evidence-based information (Lomas, 1997; Lavis et al., 2003, 2004). To date, KTE has focused primarily on communication between researchers and policymakers, especially within the health sector (Strauss et al., 2011; Tugwell et al., 2011). However, there are both principles and practical guidelines within the KTE literature that could be applied to disseminating research results to study participants.

The objective of this article is to describe how KTE principles were used to inform dissemination of survey results to study participants in an HIV research project. The project was a mixed-methods, retrospective evaluation of an HIV prevention programme in South Africa that sought to unearth insights to assist the programme in strengthening its effectiveness. A key component of the evaluation was a self-administered sexual health survey of adolescents from four schools in a resource-deprived, peri-urban area of South Africa. Whereas common approaches to disseminating survey results range from provision of a written summary at best to no dissemination at all, we sought to deliver study results drawing on lessons from the KTE literature in an effort to optimize the unique opportunity for moments of reflection with these participants. In this article, we describe key KTE principles, how we used them to inform the dissemination of survey results to our adolescent participants, and the potential utility of this approach in this novel research setting.

The emerging field of knowledge translation and exchange

The field of knowledge translation and exchange (KTE) has emerged within the past decade to examine and promote processes of more effective interchange of knowledge between research producers and research users (Mitton et al., 2007; Strauss et al., 2011). In their systematic review of the KTE literature, Mitton et al. explain the relatively recent emergence of knowledge transfer (KT) and knowledge exchange (KE) as follows (Mitton et al., 2007):

With the growing demands on health care resources and a general culture of accountability, greater emphasis is being placed on generating knowledge that can have a practical impact on the health system (Lomas, 1997). To this end, “knowledge transfer” emerged in the 1990s as a process by which research messages were “pushed” by the producers of research to the users of research (Lavis et al., 2003). More recently, “knowledge exchange” emerged as a result of growing evidence that the successful uptake of knowledge requires more than one-way communication, instead requiring genuine interaction among researchers, decision makers, and other stakeholders (Lavis et al., 2003).

KTE describes a collaborative research approach through which researchers and decision-makers are, ideally, engaged for the entire research process, from identifying the research question to applying the knowledge (Graham et al., 2006). The exchange model of KT requires that a relationship exists between those who generate and those who use knowledge, and that this relationship is characterized by regular exchanges of information, ideas and experience (Reardon et al., 2006). Information
dissemination is considered one element of the information exchange cycle during which research results are conveyed to potential users and, ideally, evidence-based recommendations are put into practice (Graham et al., 2006).

Despite its growing popularity, KTE is a relatively new model with related limitations including lack of consensus on definitions (Graham et al., 2006; Thompson et al., 2006; Strauss et al., 2011) and a small evidence base (Mitton et al., 2007). In their 2007 review of KTE in health care policy, Mitton et al. found that only 20% of studies reported on a real-world application and fewer had been formally evaluated (Mitton et al., 2007). Furthermore, KTE research on the health sector derives almost exclusively from resource-rich countries, and focuses more heavily on clinical research than the social sciences. In terms of constituencies, KTE literature largely centres on collaborative relationships between researchers and policy-makers or practitioners. Far less attention has been paid to research participants as the ‘stakeholders’ or ‘users of information’.

Nevertheless, there is good reason to consider lessons to be learned from KTE research in the context of reporting research results to study participants. The KTE literature offers practical strategies and approaches for enhancing the effectiveness of information transfer, which can be useful for diverse applications.

A central element of KTE is the achievement of interactive, two-way information exchange or dialogue between information producers and users (King et al., 1998; Lee and Garvin, 2003). Similarly, there is growing support for the idea of the public’s active participation in the production, dissemination and use of knowledge in the context of health research (Cornwall and Jewkes, 1995; Travers, 1997; Lee and Garvin, 2003). Information exchange is posited to be a more useful and appropriate form of communication than the dominant approach of unidirectional information transfer in health communication because it helps overcome common limitations related to: (i) a focus on the individual with inadequate attention to structural factors; (ii) privileging expert over lay perspectives (in our case, researcher over participant), thus biasing the social construction of facts towards expert knowledge and, (c) assuming that a one-way flow of information from provider to recipient is appropriate (Lee and Garvin, 2003). Lee and Garvin argue that moving towards a concept of exchange is central to ‘redirecting current health communications relationships to a structure that is more attentive to social relationships and contexts and to the agency of information users...[thus] grounding the research in the reality of people’s lives’ [(Lee and Garvin, 2003), p. 462].

Empirical evidence on the effectiveness of KT methods demonstrates that some methods appear to be more effective than others (Reardon et al., 2006). Although considerations such as the nature of the audience and budget are important in selecting methods, evidence suggests that certain strategies have the best uptake results regardless of the audience, and that packaging the message in a way that makes it easier to apply in day-to-day practice is favoured (Grimshaw et al., 2001; Reardon et al., 2006). For example, passive dissemination processes (e.g. peer-reviewed journal publications, mailing education material) appear to have minimal effectiveness despite the fact that this is the most commonly adopted approach among health professionals (Bero et al., 1998). Interactive engagement of knowledge users has proved to be the most effective approach for all types of audiences (Grimshaw et al., 2001; Lavis et al., 2003) and can explain differences in the uptake and utilization of knowledge by decision-makers (Bero et al., 1998; Lavis et al., 2003; Dobbins et al., 2007b). Moreover, the KTE literature highlights that researchers need to be clear as to who their audience is; each audience has different information needs and communication styles, and information should be tailored to them (Mitton et al., 2007; Gagnon, 2011).

In this article, we describe how we utilized KTE principles to inform the dissemination of survey results to adolescent study participants in an HIV research project based in South Africa.

**METHODS**

**Study background and methods**

We conducted a mixed-methods evaluation of an HIV prevention programme administered to learners attending schools in a peri-urban, poor neighbourhood in South Africa. The study was a research partnership between the Health Economics and HIV/AIDS Research Division at the University of KwaZulu-Natal in South
Africa, the University of Toronto and York University in Canada and a South African community-based organization. The evaluation consisted of a quantitative survey and qualitative focus groups. We administered the survey to 808 grade 11 learners aged 16–23 in four schools to evaluate differences in knowledge, attitudes and risk-taking behaviour between intervention learners and control learners. We also conducted eleven focus groups with parents, teachers, learners and programme facilitators to explore perspectives on how and why the HIV programme had contributed to HIV prevention. Fieldwork was conducted from February to April 2008. Both the survey and focus groups were conducted in participants’ local language, isiZulu, and facilitated by trained bilingual research fieldworkers. Ethics approval was received from the three partner universities. Results are described elsewhere (Casale et al., 2010; Rogan et al., 2010; Nixon et al., 2011). This article focuses on dissemination of the survey results to the learners who had participated in the study.

The dissemination strategy: preparation and process

In October 2008, following survey data collection and analysis, we returned to each of the four schools where we had conducted the survey in order to disseminate the findings relevant to each group of learners. The primary goal of the dissemination sessions was to share the results of the survey with the participants. However, given that the survey explored beliefs and practices related to HIV and other sexual health issues, a secondary aim of the dissemination sessions was to correct inaccuracies, debunk myths and generate dialogue about particular public health challenges that had become apparent in the survey results (Cialdini, 2008).

We liaised with principals and teachers in each school through visits and phone calls to plan the dissemination sessions with the learners that had participated in the evaluation. Dissemination sessions were convened in school classrooms. To prepare for these sessions, we prioritized key messages to be delivered based on the study results, and sought to identify effective mechanisms for conveying this information. For instance, interactive sessions were designed to include guessing games related to key findings from the survey in order to engage the learners on the research themes and to correct misunderstandings about HIV and other sexual health facts. We developed scripts in collaboration with the research fieldworkers who would be facilitating the session in order ensure that topic areas were covered comprehensively, accurately and in a sensitive way. We held practice sessions with the fieldworkers to refine the English script and then translated the script into the local language, isiZulu. Table 1 provides an excerpt from the script focusing on HIV testing survey results.

The feedback sessions took ~2 h to administer, and were facilitated by bilingual fieldworkers who had previously been involved with administering the surveys. The sessions were conducted in isiZulu. The fieldworkers prepared a written reflection report upon completion of the dissemination session in each school. Once all dissemination sessions had been completed, our research team including the fieldworkers conducted an evaluation during which we critically reviewed the strengths, weaknesses and surprises of our dissemination processes. The reflections discussed in the results section below are based on our first-hand experience of participating in this process, the fieldworkers’ reflection reports, and the report from our evaluation meeting.

RESULTS

Below we describe our approach to operationalizing KTE principles in the dissemination of research results to our adolescent study participants. We first describe the four practical strategies adopted to facilitate two-way knowledge exchange. We then examine the potential benefits of our approach for researchers.

In search of two-way information exchange

Creating a safe space for dialogue by setting ground rules

Because we were working with a vulnerable population on a range of sensitive topics, we deemed it crucial to attempt to create a safe environment in which learners could feel comfortable engaging in two-way dialogue. Recognizing the role that power relations can play in shaping interactions between the research team and participants, dissemination sessions were led by young Zulu fieldworkers who were talented and informed facilitators. We trained these
fieldworkers in strategies for handling sensitive topics, and collaboratively developed scripts to facilitate discussion of difficult topics. The research team also worked with the fieldworkers to identify particular behaviours to model during the session. For instance, the fieldworkers avoided inappropriate laughter, which can result out of nervousness about a sensitive topic but can also send the wrong message to young learners. The fieldworkers also ensured that inappropriate comments from the learners were addressed promptly and in constructive ways. To further contribute to fostering a productive environment for dialogue, fieldworkers began each dissemination session by collaboratively developing ground rules with learners regarding acceptable behaviours. In particular, fieldworkers emphasized respect for oneself, for each other, and for everyone’s opinions. The participatory way in which the fieldworkers set the ground rules at the start of each session served to not only highlight these issues of mutual respect, but also modelled the interactive nature of the discussion to follow.

These preparatory efforts proved to be crucial during the dissemination sessions. For example, during discussion of a survey finding about a high degree of gender-based violence, both girls and boys were highly responsive but with behaviours that required facilitation and redirection. Responses included some boys cheering and congratulating each other. In other cases, both girls and boys loudly denied certain results. The earlier efforts to create a safe and supportive environment enabled the fieldworkers to have a framework within which to respond to these challenges and to leverage these moments of profound engagement to both address the issue and reflect on notions of respect.

### Ensuring interactivity

We developed our dissemination strategy based on the evidence in the KTE literature that interactive engagement of knowledge users is more effective than passive dissemination (Grimshaw et al., 2001; Lavis et al., 2003, 2004), and that face-to-face personal contact between researchers and users is important in facilitating information transfer (Innvaer et al., 2002; Thompson et al., 2006; Mitton et al., 2007). To further promote interactivity, we chose to nest the survey results within a broader narrative about sexual health, which included interactive

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**Table 1:** Excerpt on HIV testing from dissemination session script

Session facilitators used the following script to guide their approach to disseminating the survey results related to HIV testing:

Knowing your HIV status is really important. Did you know that getting tested for HIV and other sexually transmitted diseases, or STIs, will allow you to get treatment and help prevent you from passing these on to others?

- 98% of boys and 90% of girls either agreed or strongly agreed that HIV/AIDS is a very serious health problem for people their age
- 99% of boys and 97% of girls either agreed or strongly agreed that sexually transmitted diseases are a very serious health problem for people their age
- 41% of the girls and 17% of boys have been tested for HIV. That is GREAT!

Questions for discussion

- Why is it hard to go for an HIV test?
- Why do you think many more girls than boys have been tested?
- What kinds of things make it easier to go for a test?

About 9% of girls and 18% boys have already had a sexually transmitted infection, or STI.

Question for discussion

- Why is it hard to go for an STI test?
- What kinds of things make it easier?

Getting tested is the only way to know if you have HIV or another STI. Lots of STIs, including HIV, are treatable. It is important to know. Also remember that you have a right to confidentiality, so your results are private! If you want to get tested, you can visit one of your local clinics, such as

- Clinic 1, phone number
- Clinic 2, phone number
guessing games about survey results and related public health messages. Learners were encouraged to participate by the young Zulu fieldworkers who were talented and informed facilitators, and who appropriately used humour to engage the youth. For example, youth were first given the opportunity to guess survey results for selected questions. Revealing the actual research finding was then used as a springboard for discussion to understand the study results and/or a related public health issue. This interactive approach engaged learners’ interest and attention by inspiring healthy competition. In the section of the report-back session addressing sexual health risk-taking behaviours, the fieldworkers conducted a ‘truth or myth’ game regarding various ways that HIV could be transmitted. Various guesses often led to ad hoc ‘teams’ of learners invested in their expectations about particular results; revealing actual survey results naturally transitioned into a more sophisticated discussion about explanations for both the survey results and the learners’ earlier guesses.

Encouraging shared ownership of results
KTE requires ‘genuine interaction’ (Lavis et al., 2003) between producers and users of evidence in order to build relationships and gain credibility. In their proposed framework for developing effective KTE strategies, Lavis et al. suggest focusing on a range of activities, such as exchange efforts whereby producers and users of information engage in a process of asking and answering questions together (Lavis et al., 2006). This process includes working collaboratively at all stages of the research process, including the dissemination stage. Implicit in this collaborative process is the intention of creating shared ownership of the information, which leads to increased valuing of research results by recipients. Building on this concept, we applied various strategies to achieve a sense of shared ownership of results during our sessions. For example, we encouraged youth to express opinions and to respectfully challenge each other’s knowledge regarding HIV and sexual health during the report-back sessions. We focused on disseminating results specific to each school (and not the broader generalized sample) to increase the relevance of the information. We also allowed the opportunity for youth to shift the focus of the discussion, such as from discussing quantitative data to their social explanations for the results. In doing so, we sought to demonstrate that we valued their expertise in discussing the results and how they impacted on their lives. This approach also appeared to contribute to creating an environment in which the youth were able to critically engage with issues around HIV, sexual health and gender dynamics.

There are numerous examples from within our dissemination sessions of vibrant discussions erupting from disagreement among learners regarding HIV-related facts. For example, one dispute focused on whether HIV could be transmitted by mosquitoes or by sharing a drink. Learners’ responses were also divided when asked whether condoms could protect you from HIV, and whether there were medicines that can help people with HIV. These disagreements heightened learners’ interest in the right answer and in differentiating facts from myths. In other cases, learners offered their own explanations for the survey statistics, which were not only compelling but often included insights not previously considered by our research team. For example, when it was revealed that our study found that more boys had reported having sex than girls, learners referred to cultural and gender norms. Specifically, several participants referred to the attitude of parents who insist that young girls abstain from sex but instead see abstinence as a ‘problem’ for boys.

Using simple, targeted messaging and materials
The KTE literature indicates that knowledge producers should adapt their messages and methods of dissemination to the needs of different intended users (Lavis et al., 2003; Graham et al., 2006; Gagnon, 2011) in a way that is sensitive to their available skills and resources (Dobbins et al., 2007a). Researchers are encouraged to translate findings into plain language that is ‘devoid of the jargon with which researchers traditionally communicate within the field’ [(Dobbins et al., 2007a), p. 10]. Although non-interactive dissemination approaches (e.g. written reports) are considered less effective translation tools, the research literature does support the use of feedback material (Grimshaw et al., 2001; Lavis et al., 2003) to strengthen or add value to (versus replace) interactive methods, particularly when providing targeted information to clearly identified audiences.
Furthermore, multifaceted interventions appear to be more effective than single interventions. However, research findings should be presented in summary format, using simple language and with clear recommendations (Mitton et al., 2007). This recommendation is supported by studies such as (Dobbins et al., 2007a) who found the community-based study participants preferred executive summaries and abstracts as formats of research information versus lengthy articles or reports. They also advise framing responses to research questions to reflect the context and questions that occur in practice (Dobbins et al., 2007b). Following these insights, we tailored the sessions for our information recipients (i.e. the learners) in a number of ways, including the use of straightforward, age-appropriate messages and engaging sessions lead by dynamic facilitators. However, we also developed targeted written material to support this process.

For each of the four schools, we extracted the key school-level indicators from our quantitative database that we considered most relevant to school representatives and learners. These results included: household-level demographic data; self-reported socio-economic status; previous sexual experiences of learners; knowledge, attitudes and experiences regarding STIs; condom use; HIV testing; and, violence. We then embedded this information within plain language booklets and posters, which also contained general information and messaging on HIV prevention and treatment deemed important in the context of the study results. In doing so, we sought to provide research findings and to deliver factual information on HIV using creative communication methods designed for youth. The educational messaging encouraged youth to test for HIV, delay sexual debut and use condoms if they chose to have sex. We also included contact details for support resources in their area (e.g. help-lines for victims of violence, child welfare and HIV organizations, and clinics and other health facilities).

Booklets were designed to be short, simple and targeted for end-users. They were four-page feedback reports prepared in English and isiZulu and tailored for each of the four schools (see Figure 1). We also included graphs and text boxes to make the report more accessible. In designing the booklets, we started with the information deemed to be most important. HIV and sexual health prevention messages, based on information needs arising within the survey, were embedded throughout. Anonymized demographic data were provided at the end of each report. Booklets were distributed to all learners prior to the dissemination sessions so that they could refer to them during the sessions. Learners were encouraged to follow the content of the dissemination sessions in their booklets as it was presented by fieldworkers, and to take the booklets home. We felt it was important to provide these learners with material in writing that they could keep, potentially share with family and friends, and refer to for support resources in the future. We also prepared large, bilingual colour posters to be displayed in each of the schools with content similar to the feedback booklets. The aim of the posters was to offer strong visual impact. Schools were encouraged to display the posters with their HIV and school-specific information in a common area.

Potential benefits of this dissemination approach for researchers

The preceding sections have outlined the value of an exchange model of communication to enhance the uptake of research results by participants. This approach also has a number of potential benefits for information producers, or researchers. The main purposes of KTE are to increase the utilization of research evidence and to allow researchers to identify research questions that are more relevant to policy and practice (Mitton et al., 2007). Moving beyond one-way processes of information transfer to two-way exchange processes is posited to ‘give equal importance to what researchers can learn from decision-makers and what decision-makers can learn from researchers’ [(Lavis et al., 2003), p. 227)]. The approach seeks to better attune each party to the work and needs of the other. Although the literature focuses on benefits in the context of policy and practice settings, similar opportunities can arise in the context of research.

First, the two-way communication approach may help inform and encourage acceptability for future research, especially if participants perceive value in the research effort (Lavis et al., 2006; Lomas, 2007; Wilson et al., 2010). Second, participants’ explanations of results can contribute to better understanding of the data by researchers. It was our experience that
participants’ insights deepened our understanding of how their social and cultural contexts were reflected in the results. This, in turn, allowed us to produce more relevant research findings (Lavis et al., 2006; Lomas, 2007; Wilson et al., 2010).

In his anthropological study on AIDS and orphanhood in western Kenya, Nyambéda explained how his ‘community feedback sessions’ represented a forum for the exchange of ideas between researchers and the study population (Nyambéda, 2008). Some of the positive effects of the sessions that he reported included: an opportunity to address undue expectations that the study population had developed of the research; greater understanding of the benefits

Did you know that HIV is passed from one person to another by sex?

- About 36% of boys and 65% of girls surveyed have had never had sex before.
- 62% of boys and 78% of girls do not intend to have sex in the next 3 months.
- 53% of boys and 68% of girls do not intend to have sex until they are married.
- On average, girls were older than boys when they first had sex and have had fewer sexual partners than boys.
- 77% of boys and 83% of girls either agreed or strongly agreed that it is up to them whether they have sex in the next 3 months.
- 61% of boys and 55% of girls either agreed or strongly agreed that they are very knowledgeable about sex.

**Not having sex, delaying sex or remaining abstinent are ways to prevent HIV transmission. Many of you are already making this choice!**

Did you know that condoms are a very effective form of HIV and pregnancy prevention?

- 68% of boys and 73% of girls thought it would be easy or very easy to use a condom each time they had sex in the next 3 months; only 7% of boys and 7% of girls thought it would be very difficult.
- 76% of boys and 62% of girls either agreed or strongly agreed that they know how to use a condom properly.
- 77% of boys and 77% of girls either agreed or strongly agreed that their possible sex partners think they should use a condom every time they have sex in the next 3 months.

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<tr>
<th>Figure 1</th>
<th>Boys</th>
<th>Girls</th>
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<tr>
<td>Average age at first sex</td>
<td>13</td>
<td>17</td>
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<td>Average number of sexual partners</td>
<td>6</td>
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Fig. 1: Excerpt from booklet sharing school-specific study results.
of research and subsequent improved receptiveness of the session participants to researchers visiting their homes; a contribution to local knowledge and action through the presentation of study findings; and, the opportunity for the host community to react to the findings, recount their experience as research participants and propose the type of research they would like to see conducted in relation to the problems of AIDS and orphanhood (Nyambedha, 2008).

During our dissemination sessions, participants provided our research team with a better understanding of the data related to learners’ beliefs about the results (e.g. that some items were dishonestly answered due to desirability bias) or narratives for why particular results were achieved. A specific example of how learners’ responses helped explain our data were the dominant perspective on why reported HIV testing was so much higher for girls than for boys: learners explained that this finding was because many girls sought reproductive health care and family planning assistance during pregnancy, which served as a bridge to HIV testing.

An additional benefit to our research team involved the identification of new areas of concern for future research. For example, we found perplexing and contrasting responses when sharing study results related to intimate partner violence: while every other aspect of the report was treated lightly and with humour by the participants including rather dire HIV risk indicators, upon presenting the violence data some of the boys applauded and cheered as others sat in a seemingly uncomfortable silence. The relationship between gender violence and HIV is an important area of study and action; our experience during this dissemination session left us with a new line of inquiry regarding the unique position of violence vis-à-vis other sensitive topics.

**CONCLUSION**

Reporting back survey results to study participants differs from the kinds of dissemination efforts that typically accompany community-based research, participatory action research or ethnographic research wherein participants are integrated throughout the study as part of the research process. Conversely, survey evaluations typically draw on a positivist orientation that seeks objectivity on the part of the researchers and an intentional distance from participants. Surveys are an extremely popular research methodology (on their own or as part of mixed-methods research), yet there is a dearth of literature on how best to effectively disseminate research findings to participants. Furthermore, despite the dominance of and vast investment in survey research, the process of disseminating results is rarely recognized as an opportunity for promoting health. This article is the first to describe the application of principles from the field of KTE to enhance the dissemination of an HIV survey of South African adolescents.

In disseminating results from our health survey, we considered our ethical requirement of informing participants of the research findings as a minimum obligation, which might have consisted of simply providing results in the form of a written summary. However, given the evidence on the limits of this approach in terms of meaningful information transfer, we chose to actively engage with participants in a two-way exchange to enhance the likelihood of uptake of the research results. This approach allowed us to take advantage of teachable moments and to build educational messaging into the feedback process. Also, having captured the learners’ attention, we were able to more effectively discuss findings as well as provide additional information at the end of the session (e.g. referral contact numbers for support during crises).

This form of collaborative international research can facilitate the application of approaches (such as KTE) that have been developed and utilized in certain parts of the world, to new countries and contexts. Like any innovation applied in a novel setting; however, it is crucial to reflect critically on both its value and limitations in a new environment. Moreover, the fact that KTE has to date been applied mainly to policymakers versus research participants is both a limitation and an opportunity: our results suggest that there may be scope to further apply KTE principles to research participant engagement and to the dissemination process as one component of the information action cycle (Graham et al., 2006).

**Dissemination, intervention and/or further research?**

The examples illustrated in this article are designed to inspire survey researchers to think creatively about dissemination. We urge others
to consider the report-back process as part of the cycle of research. In retrospect, we realize that we may have missed an opportunity by failing to locate our survey dissemination sessions as part of our qualitative methods versus merely a dissemination exercise since we gained insight about our research topics through this process. In other words, we underestimated the value of the synergy offered by this potential data collection activity to explore learners’ perspectives about our study results. Importantly, such an approach would have meant treating the sessions as qualitative data collection activities, including audio-recording and transcribing the sessions and analysing these data as part of the qualitative evaluation. This approach would also have required conceptualizing dissemination as part of our data collection strategy in our original proposal so that it could be better accommodated in our budget and ethics review processes. In its current form, our effort sought to more robustly disseminate survey results to research participants, but did not intend to be a health promotion intervention in itself.

Challenges to using this KTE approach to disseminate research results to participants

A key challenge to this form of dissemination is the lack of incentive it holds among some funders or within academic settings where peer-reviewed publications trump these types of utilization activities. This approach requires time, material and human resources beyond the demands of simpler dissemination efforts (e.g. provision of written reports). However, King et al. argue that funding agencies can assist in the process by adjusting their funding criteria to encourage practice-relevant research and consider applicants’ past successes in information dissemination (King et al., 1998). Some funders, such as the Canadian Institutes of Health Research, now regularly issue funding calls specifically designed to support KTE activities.

A second challenge involves scrutinizing the potential overlap between reporting back research results in a participatory way (as we have sought to do here), versus conducting a qualitative evaluation of perspectives on research results or conducting an intervention to provide education on the study topic. Researchers must critically reflect on their motives and practices during this stage of the research process, not least because of the ethical implication, including the potential requirement for formal research ethics review of these activities.

Third, the approach described here may not be applicable to other research. For example, engaging with the KTE principles described above may not be feasible if research participants are not clustered within approachable distances, as might be the case of a nationally representative survey.

In conclusion, we are aware anecdotally of many creative examples of disseminating results of survey evaluations around the world, but note that few have been published to help guide others. We hope this article will prompt further dialogue on practical strategies for more effectively disseminating research results to study participants and encourage authors to contribute to the limited evidence base in this area.

REFERENCES


