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Include Them and They Will Tell You: Learnings From a Participatory Process With Youth

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Abstract

Encouraging youth voice, visibility, and active participation in adolescent-related research is strongly advocated in the literature. In this article, we describe how participatory approaches informed by arts-based methods (e.g., reflective writing, dramatization) were used with adolescents to enhance the research process in an exploratory study designed to develop and evaluate prevention resources for sexual risk-taking behaviors. Youth aged 15 to 17 years participated in iterative focus groups conducted over a 1-year period in school settings in Prince Edward Island, Canada. Descriptions of our experiences, strategies, and insights provide evidence for guiding practice to optimize adolescent participation in research.

Keywords

adolescents / youth; focus groups; qualitative analysis; research participation; risk, behaviors; sexuality / sexual health

Adolescence is a time of significant biological, cognitive, emotional, and social change. It is a time when adolescents make major choices about their health and health-related behaviors. Sexual risk taking, alcohol and drug use, injury and violence, tobacco use, unhealthy eating, and physical inactivity often begin in adolescence and persist into adulthood (Centers for Disease Control and Prevention [CDC], 2008). These unhealthy behaviors are modifiable; however, adolescents are a challenging population to reach with prevention education (CDC, 2010). Collaborating with adolescents to develop prevention resources that take into account their own perceived needs and their unique perspectives is likely to enhance our effectiveness to develop relevant resources (Kelly, Lesser, & Smoots, 2005), yet, this approach has been underutilized in prevention research (Santelli et al., 2003). In this article, we describe the application of our current understanding of adolescent development to the data collection process that took place in a study examining sexual risk taking. In addition, we highlight the importance of youth participation when conducting research with this population.

Adolescent Developmental Characteristics and Prevention Approaches

To be effective, health-promotion efforts with adolescents must be tailored to this population's cognitive and psychosocial needs. Piaget (1976) described adolescent cognitive development as the stage of formal operations. In this stage, adolescents reach a superior level of reasoning as compared to prior childhood thought. Adolescents use abstract thinking to hypothesize and apply the principles of logic to unfamiliar situations. Adolescent psychological changes center on the struggle to develop a personal identity and retreat from the willing acceptance of ideas and conduct approved by parents (American Academy of Pediatrics, 2002). Family-based activities become less important and are replaced with those involving peers. Health promotion strategies that do not address age and gender-specific considerations are not likely to be effective (Kelly et al., 2005).

Age differences are essential to consider, because younger and older teens display significant differences in cognitive abilities (American Academy of Pediatrics, 2002).

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Jo-Ann M. MacDonald, University of Prince Edward Island School of Nursing, 550 University Avenue, Charlottetown, PEI CIA 4P3 Canada Email: jammacdonald@upei.ca These differences are evident in thinking patterns. Younger teens might exhibit impulsive decision making and display trial-and-error reasoning because their nervous systems are still maturing. Older teens begin to think abstractly and make the connections between cause and effect. Gender differences are also important considerations, because girls and boys undergo the changes of adolescence in different ways (Kelly et al., 2005). Both boys and girls might be uncomfortable discussing sexual health topics in mixed classes because they experience gender-based influences on sexual expectations and appropriate behavior. To elicit attention and responsiveness in adolescents, they should be approached with respect, openness, and tact (Kelly et al.). In addition, adolescents' needs for personal space, control, privacy, and confidentiality (Bastable & Dart, 2008) should be respected when gathering their input on appropriate prevention resources.

Education involving the use of peers should be considered in the development of prevention approaches, because peer influences are important in adolescent decision making (Kelly et al., 2005). Horner et al. (2008) described a culture-centered approach for developing health communication to promote sexual risk reduction in adolescents. They found that adolescent narratives that support healthy behaviors counteract dominant messages that favor risktaking behaviors in adolescent peer groups. More recently, Lamerichs, Koelen, and te Molder (2009) found that stimulating adolescents to become critically aware of how they talk and act served as a mechanism to develop healthrelated activities directed at their peers. In both instances, investigators identified that health communication messages intended for adolescents were enhanced because of adolescent input.

Participatory Approaches

Encouraging youth voice, visibility, and active participation has been strongly promoted in the literature (Greig & Taylor, 1999). The right to be involved as participants in matters that affect their health is consistent with a humanrights approach. Children's right to participate in decision-making processes that might be pertinent to them, and their right to contribute to decisions that are made in relation to them, were clearly outlined in the 1989 Convention on the Rights of the Child (United Nations Children's Fund, 2009). Despite recommendations that youth be involved in the design of health interventions (DiCenso, Guyatt, Willan, & Griffith, 2002), they have rarely had an explicit role in the development of sexual health curricula (Hampton, Fahlman, Goertzen, & Jeffery, 2005). Increasingly, it is recognized that unless youth are given a more substantial voice in participating in discussions about their health, and in generating and distributing relevant messages, prevention programs developed by others (i.e., adults, organizations) are destined to failure (Ford, Odallo, & Chorlton, 2003; Mitchell, Reid-Walsh, & Pithouse, 2004).

Schratz and Walker (1995) described participatory research as a research approach rather than a specific method. In taking a participatory approach, researchers adopt the position that participants are subjective, contextual, self-determining, and dynamic. Researchers obtain participant perspectives, describe, and interpret data with a primary focus on research in the context of social change (e.g., the enhancement of knowledge to promote action). For example, Friedman et al. (2004) used participatory approaches to gain adolescents' perceptions on sexual orientation, and used their input to develop new measures of sexual attraction. Participatory research with youth has also emerged as a key approach to support and sustain behavior change in countries affected by the human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) pandemic (Campbell, Foulis, Maimane, & Sibiya, 2005; Campbell & MacPhail, 2002).

Participatory research is often informed by visual- and arts-based methodologies such as photovoice, performance arts, reflective writing, video documentary, digital technology, collage, and drawing (Moletsane et al., 2007; Walsh & Mitchell, 2004). The growing use of arts-based methodologies in health-related research was highlighted in Handbook of the Arts in Qualitative Research (Knowles & Cole, 2008). Inviting youth to participate in such endeavors helps to place them at the heart of cultural creation, and demonstrates the transformative potential of arts-based methodologies in health research (Finley, 2008; McNiff, 2008). Consistent with the participatory nature of arts-based methodologies, youth become the creators of messages related to the issues affecting their lives and circumstances, and produce their own definitions and responses. For example, Buthelezi et al.'s (2007) use of visual participatory methodologies led the investigators to conclude that there were "significant discrepancies in the 'ideal adult worldview' and the 'practical youth worldview' on sexual matters" (p. 445). Moletsane et al.'s use of visual participatory methodologies inspired youth activism to address stigma in the context of HIV and AIDS. Woodgate and Leach (2010) explored youths' perspectives on the determinants of health using photovoice techniques. They found that youths' views regarding health were not consistent with how academics and public policy experts have normalized the concept of health to include the broader determinants of health.

Despite the documented success of participatory approaches with youth, research regarding adolescent involvement in the development, implementation, and evaluation of curricula pertaining to risk-taking behaviors, including sexual risk taking, smoking, illicit drug use, and violence, is rare. Furthermore, there is a need to describe the development of curricula from an arts-based approach. In this article, we address this gap in the literature by presenting what was learned from our experience using a participatory approach with youth in a study of sexual health. First, we provide details pertaining to the larger study.

Study Background

We conducted a school-based study to explore the factors youth report as being important to facilitate their ability to acquire skills for the prevention of sexually transmitted infections (STIs) in Prince Edward Island (PEI), Canada. An exploratory design is an appropriate choice for investigators seeking new knowledge, new insights, and new understanding (Brink, 1998). We encouraged youth participation through (a) consciousness-raising of the youth on the topic of sexual health education; (b) enhancing youth control and shifting the balance of power from the researcher; and (c) involving youth in a process from which they have been traditionally excluded (Hart & Bond, 1996).

The PEI Department of Education had initiated a process to revise its 10-year-old curriculum, and had not made provision for student input. We provided a timely opportunity for incorporating students' contributions to curriculum resource development. Ethical approval was received from participating universities and the Eastern School District of PEI prior to the start of the study. We based our research approach on the belief that the preferred curriculum is one which is negotiated rather than defined, and that youth can be actively involved and make important contributions to the curriculum (Craig, 2003; Pinkney, 2000).

Initially, adolescents met in four focus groups and shared their views on the appropriate content and form of educational resources. Trained youth facilitators aged 19 to 25 years conducted the focus groups and used a semistructured interview guide. Facilitator training included (a) encouragement of youth control in the research process; (b) how to focus discussions with the youth and their sexual health education needs; and (c) how to provide opportunities for youth to negotiate the issues of sexual health education from their perspective.

Next, we identified participant-generated ideas from these focus groups that served as activities we used in four follow-up focus groups with the same participants. For example, participants identified that they were comfortable writing about what they thought young people should know about STIs. They expressed preferences for drawing prevention messages that were relevant to their lives and circumstances. They suggested the use of role play to discuss sexual health issues. These ideas formed the basis of our interactions with the adolescents, and we were able to deepen our exploration of their perceptions of relevant prevention resources using arts-informed methods (e.g., reflective writing, dramatization). Content experts assisted with refining the youth-generated materials so they might become resources for the prevention of STIs.

The four curriculum resources that were eventually developed included (a) a process to develop relevant characters for role play; (b) vignettes for the dramatization of youths' experiences with STIs; (c) an interactive poster board to assist with sexual-risk assessment; and (d) an interactive card game focused on relevant sexual health questions. The composition of each resource included youth input that was linked to reflective writing activities, participation in dramatizations, and discussions held during focus groups. Each resource was also based on teaching methodologies (e.g., group discussion, scenario/simulation, gaming) described by Bastable and Dart (2008). These resources were subsequently evaluated in an additional four follow-up focus groups.

All 12 focus groups conducted to develop and evaluate the curriculum resources were conducted in familiar, yet private school spaces, and lasted from 50 to 75 minutes. Krueger (1994) stated that a minimum of three focus groups was usually necessary to achieve diversity of thought and theoretical saturation. Study methodology and results from the larger study have been reported elsewhere (MacDonald et al., in press). In this article, we focus on the unique contributions of adolescent participants to the research process. Specifically, we set out to answer the following research question: What can be learned about the participation of youth in a curriculum-development process?

Methods and Procedures

We conducted a secondary analysis (Polit & Hungler, 1999) to explore relationships in the data gathered previously from students regarding educational resources to promote sexual health. Students in the study were (a) registered in Grade 10 (ages 15 to 16) or Grade 11 (ages 16 to 17) in the Eastern School District of PEI; (b) registered in their school's Family Life Education Course (or had completed it in previous years); and (c) able to provide written consent. We obtained parental consent for all participants. Teachers assisted in the identification of students who worked well in groups; however, this did not preclude a student's ability to self-identify for the study. Participants received a movie pass as a token of appreciation for their participation.

Study Participants

Fifteen girls and 13 boys (N = 28) participated in eight initial focus groups that were organized to develop the content and form of resources for the sexual health curriculum. Participants ranged in age from 15 to 17 years.

The mean ages of the Grade-10 students were 15.5 years for girls and 15.3 years for boys; the mean age of Grade-11 students was 16 years for both boys and girls. In a second set of four follow-up focus groups, 22 of the 28 participants subsequently evaluated the curriculum resources developed with their input. Of these, 13 were girls; 7 were Grade-10 students and 6 were in Grade 11. Of the 9 boys, 3 were Grade-10 students and 6 were in Grade 11.

Data Sources

The data sources for the secondary analysis included all transcripts (25 to 60 pages in length) and field notes from the 12 youth focus groups (organized by grade and gender), as well as eight descriptive summaries and a research log written by the first author (MacDonald). The descriptive summaries were developed through inductive analyses (Streubert & Carpenter, 1999) of all materials produced from the arts-based activities (e.g., reflective writing excerpts, dramatizations) and focus group transcripts. They included documentation of how each group of students (a) identified the factors important to facilitate their ability to acquire prevention skills for sexual risk taking, (b) described the form and content of curriculum resources for the prevention of STIs, and (c) perceived the new curriculum resources that had been developed with their input. The research log contained documentation of the actions and decisions taken in the research process to enhance the confirmability of the study (Janesick, 2000). Several strategies were previously applied to establish trustworthiness of the data. The accuracy of transcriptions was checked against audio recordings by the first author and a research assistant. We used member checking with representatives of the focus groups to ensure we had correctly interpreted their input (Janesick).

Analysis

In our analysis we focused on the research question, "What can be learned about the participation of youth in a curriculum development process?" This led us to examine both the method we used to engage the adolescents as well as their input. The first author and a research assistant were primarily responsible for conducting the qualitative analyses, using content analytic techniques (Gillis & Jackson, 2002; Krippendorff, 2004). This consisted of rereading and reflecting on the focus group transcriptions (n = 12), the descriptive summaries (n = 8), the research assistants' field notes from each focus group (n = 12), and the contents of the research log. The first author and a research assistant coded data separately, and met on a regular basis after reviewing five pages of text to compare their interpretations (Miles & Huberman, 1984). This promoted interrater reliability and provided an opportunity to resolve differences in perspectives through discussion. As a preliminary step, coders met and identified themes that pertained to the processes and actions undertaken in the research, and identified passages of text in transcripts that provided an answer to the research question. Based on this work, the first author developed a coding scheme of three overarching categories that related to the adolescent developmental characteristics relevant to the research, the affected research process, and the research enhanced through adolescent input. This scheme guided the manual categorization of data to one of the three categories. The second author (Gagnon) reviewed the coding scheme to validate the categorization of data.

After the preliminary step of data categorization was completed, coders continued to explore transcripts and descriptive summaries. They assigned codes to words, phrases, or sentences that described a particular impression regarding how adolescent input enhanced the research process. They discussed similarities and differences in the types of adolescent input within and across focus groups. As a result, coders agreed that youth input fit within three broad theme areas evident in all focus groups.

Results

Findings pertaining to the analysis of our method were first organized by the three overarching categories of adolescent developmental characteristics relevant to the research, the affected research process, and the research enhanced through adolescent input that was emphasized in the data sources. We used two key approaches to optimize adolescents' developmental characteristics and promote their engagement in the research process. These included the use of facilitators similar in age to the participants and the use of arts-informed methods such as reflective writing.

Engagement of Youth in the Research Process

Our use of facilitators similar in age to the participants increased facilitator credibility (Kelly et al., 2005). We recruited these youth facilitators because of adolescents' affinity for peer acceptance and peer support (Bastable & Dart, 2008). We matched them to the gender of the participants in the focus group. The facilitators were required to convey acceptance verbally and nonverbally when discussing sexual health topics, promote a sense of control within the participants, and share decision making. The facilitators established rapport with the youth participants and discussion of sensitive topics ensued. Facilitators shared decision making about the range of sexual health topics to discuss as well as the types of arts-based activities that were used to gain their perspectives on the form and content of curriculum resources.

Our use of arts-based methods constituted a means of (a) eliciting adolescents' attention; (b) appealing to their ability to make sense out of new data and discern relationships among objects and events; and (c) addressing their capacity for abstract thought (Bastable & Dart, 2008). For example, the use of reflective writing assisted participants to clarify values about sexual health issues and complemented their need to be actively involved (Bastable & Dart; Kelly et al., 2005). One girl wrote about the uncertainty of how to understand the risks associated with sexual activities: "I think it's important for kids to know, 'How can I tell if it's safe to have sex with this person? They look clean, is there any risk?"" Boys made use of the opportunity to express that it was unsafe to reveal one's true information needs in a public forum:

It wasn't cool to ask questions in Sex Ed [education] class. People would hassle you after . . . your popularity would be gone. I need to know, "What are the different STIs and how do they affect the body?"

In both instances we were able to use the reflective writing activity to deepen our understanding of adolescents' experiences and provide a safe space for expressing their views.

Thematic Interpretations

Three themes emerged from our further analysis of participant data from the focus group transcripts and the descriptive summaries. These data included participants' views that were articulated in discussions about sexual health education and their comments during activities such as role plays about making decisions in sexual relationships. The collaborative action that occurred within the focus groups encouraged the youth to (a) initially express their views regarding how to enhance the existing sexual health curriculum; (b) describe their successes and struggles in trying to acquire prevention skills; and (c) continue to communicate their perspectives regarding the use of the curriculum resources. A sampling of subtheme excerpts that support the three themes emphasized in participant data gathered during the development and evaluation of the newly developed curriculum resources are described below.

Enhance the Existing Sexual Health Curriculum

Participants described a need to revisit earlier sexual health content because they had forgotten specific details about STIs, and because the whole concept of sexual health became more important with age: "When we first had Sex Ed. in junior high school we were not going out and hooking up . . . but now it [sexual activity] is more real to us

and we can't remember what they [teachers] said" (Grade-11 girl). Youth provided vivid descriptions of reasons existing educational processes did not work: "You kind of tune out of a lecture. . . . We need to hear stories. Tell us stories. Have people closer in age tell us about their experiences" (Grade-10 girl). They described experiences with out-of-date resources and with some content they perceived as offensive. In reference to out-of-date content, girls made specific reference to one educational scenario in which they lost interest because it appeared to be linked to the 1990s, with outdated music and clothing styles: "It was supposed to be some story about a girl . . . but the music was so '90s and she was wearing something weird. . . . We didn't pay attention" (Grade-11 girl). In reference to offensive educational content, boys expressed how an authoritarian message such as "Don't have sex!" induced them to view subsequent content negatively: "Well, teach them [students] prevention, but don't like go overboard and be like, 'Don't have sex!'... They [teachers] just encourage abstinence. . . . All they do is show the bad side" (Grade-11 boy).

Girls used the most emotion when they described the gender bias they felt existed in both the format and delivery of curriculum materials. They made specific reference to scenarios of sexual risk taking and STIs that were presented to them in sexual education classes. The scenarios only portrayed girls with multiple partners. One Grade-11 girl summarized the content of the distasteful scenario as, "[T]here was always one girl and she was on everybody [had multiple sex partners]. She got the STI."

Successes and Struggles to Acquire Prevention Skills

Youth clearly identified a range of positive and negative factors that affected their learning and influenced the development of prevention skills. They placed a major focus on school (educational content and process, teaching style) and community factors. All participants expressed that messages from people closer to their own age captured their attention. They made specific reference to a presentation by a young man who talked about AIDS: "He came to our class to talk about AIDS. At the end of his talk he told us he was HIV positive, and he didn't even look sick" (Grade-10 boy). This comment reflected that boys had not considered that such a healthy-looking young person could have HIV.

Boys and girls identified that a teacher's discomfort with discussing sex conveyed that sex is a topic not to discuss in an open manner. One Grade-10 girl said, "If your teacher, who is a grown up, can't talk about it [sex], how are you? That gives you the impression that, 'Oh I'm not supposed to talk about it."" They also reported that a teacher who was open, comfortable, and passionate about the topic of sexual health provided a positive learning environment. Younger girls commented on the importance of a nonjudgmental attitude; one said, "Mrs. M., she never judges you, she tells you how it is."

Youth reported on negative experiences in the community with the most intensity. Boys and girls had similar stories about their perceptions of the community monitoring their sexual behavior. Boys made specific reference to situations in which friends of parents reported seeing a young person purchase condoms at the local pharmacy. One Grade-11 boy said, "If I walked into a pharmacy and I'm like, 'I need a pack.' I know people that work there and there's no place I can get them [condoms]. Your neighbor is like, 'Hey Tim.''' Girls described how to handle seeing someone at the pharmacy who knew the boys. One Grade-11 girl said, "When you meet somebody you know, you better be looking at the razor blades and not the condoms.''

We identified gender-related differences in the ways youth constructed their repertoires of prevention skills. Girls' assessed risk based on their own experiences and the experiences of individuals known to them. During a role play, one Grade-11 girl's comments reflected how perceptions of risk were influenced by knowledge of familiar sexual contacts vs. those unknown to them:

It's more like you're in [name of hometown]. Everyone knows everyone, and everybody knows everything about everyone. If your boyfriend did stuff with this person, you would know if that was okay or not. But, if you were in some random city or something, you would never know.

In contrast to girls, boys were very matter of fact in describing their process of decision making. Boys in both grade levels expressed comments such as this one from a Grade-10 boy: "Just make a decision, don't really think about it."

Perspectives Regarding the Use of the Curriculum Resources

Youth remained committed to providing their perspectives on the use of the curriculum resources. Separation of the focus groups by gender revealed differences in how each group viewed the use of the curriculum resources. For example, in reference to a performance-based vignette about a young man with chlamydia, boys focused on technical aspects of improving the resource. They openly described how viewing the dramatization assisted them in thinking more critically about sexual risk taking. They had not realized that women might develop pelvic inflammatory disease and possible infertility because of chlamydia. They also endorsed the need to inform their sexual partners if infected. One Grade-10 boy's comments indicated that he discovered new information; he said, "A girl could find out when she chooses to have children? She could find out she can't [have children] because years ago she developed this [chlamydia] without even knowing it?" In reference to the same vignette and the need to inform sexual partners, another Grade-11 boy offered, "Get more emphasis on what you're supposed to do when you find out you got something [STI] and you've already had sex with another person." In contrast, girls focused on the use of the vignette to dispel boys' lack of attention to sexual risk taking. One Grade-10 girl said, "Boys only want to know if you are on the pill; they're not thinking about infections."

Girls described how the content in several of the curriculum resources avoided gender bias and were particularly relevant to their experiences. They compared their experiences with prior curriculum resources (previously developed characters and scenarios not relevant to their circumstances) that made use of role play with the new character development process for role play we developed as part of this study. One Grade-10 girl said, "You're more connected when it's [character development] from the ground-up." The latter comment was in reference to the approach we used in our curriculum development process as opposed to using a character that had been developed by an adult or teacher.

All participants provided formative feedback on how to best use the curriculum resources in classrooms with other groups of students. Their comments included the suggestion to revise troublesome language, such as eliminating the use of "vikes" in the performance of the vignette about a young man with chlamydia because it was associated with the era of the 1990s. One Grade-11 boy said, "It [use of yikes] didn't really make the story any worse, it just made it really funny, which made me not take it seriously." Both boys and girls contributed to the development of teaching guidelines for the use of the resources. For example, in reference to the use of the interactive card game, one Grade-10 boy said, "You don't always have to use this [card game] in a group. It's a good way to test yourself [about STI information] if you're not sure and you really don't want anyone to hear the question." One Grade-10 girl expressed a similar view: "You could do this yourself. You don't always have to do this in a group. There are questions on it that some people might feel embarrassed to answer in a group." Overall, both boys' and girls' comments represented a critical reflection and attentiveness to details for developing teaching guidelines.

Discussion

The aim of this article was to describe what can be learned about the participation of youth in a curriculum development process. An examination of our method and youth input demonstrated that the research process was enhanced with youth participation. Participatory approaches informed by the arts-based methods of reflective writing, role play, and dramatization (Finley, 2008) were an essential part of our process. We were able to elicit participants' attention, and maintain their interest and responsiveness throughout iterative focus groups. The use of these methods worked well and positioned youth as active agents in creating prevention messages and contributing to the discussion around STI-prevention resources. Results indicate that our use of these methods facilitated an understanding of adolescents' perspectives.

We were also able to gain insight into specific sensitivities in youth culture. For example, engaging youth in dramatization plots sensitized us to how language associated with a former decade (i.e., the 1990s) could be offputting and result in youth dismissing the content of a curriculum resource. Cole and Knowles (2008) stated that communicability is an important consideration, and the potential for audience engagement is related to the form and language in which arts-informed tools are written or performed. Additionally, participant discussions of peerrelevant scenarios used during role play highlighted key gender differences in decision making and risk assessment both of which can affect the development of prevention skills.

Results from other studies also demonstrate how the use of arts-based methods can engage youth participants. Moletsane et al. (2007) used photovoice to involve youth in knowledge production in response to HIV and AIDS stigmatization, and to accept a personal sense of agency for taking action to reduce stigma. Buthelezi et al. (2007) used student responses to a video documentary about HIV and AIDS to discover the youths' perceptions about sex, sexuality, and AIDS. In both studies, investigators used arts-based tools to create safe spaces for dialogue and promote optimal youth engagement. Cole and Knowles (2008) referred to this type of engagement with the participants as the "transformative potential" of the work.

We conducted a secondary analysis of data from a qualitative exploratory study. Although we had included strategies to enhance the credibility and confirmability of the original study (e.g., member checks with participants, documentation of decisions and actions), there are limitations in this project. Even though we invited all students who met inclusion criteria to participate, teachers assisted in the nomination of students who worked well in groups because no screening tool was available to assess this in advance. The study groups might represent a more motivated sample than the population from which they were selected. In addition, there is no certainty that these results have meaning and relevance to those who might be marginalized because of sexual orientation, race, and culture; those who chose to self-exclude; or those who were not chosen by their teachers. We can only report on the perspectives of the participants in our study from two grade levels (10 and 11). There is no assurance that our findings have meaning and relevance to high school students in lower grades (7 to 9), where prevention curricula are often initiated.

Despite these limitations, our analysis provides evidence to guide practice and research on the use of participatory approaches informed by arts-based methods with youth to develop education resources for other risk-taking behaviors. Our recommendations are applicable to the education and health sectors. It appeared that our use of participatory approaches with youth in this study provided a view to understanding the sexual scripts that influence their acquisition of prevention skills. We used that knowledge to enhance the communicative potential of the resources, and ensured that the resources were written in the form, language, and method of performance preferred by adolescents. We believe similar gains might be found in using participatory approaches with adolescents to understand how they acquire prevention skills for other risk behaviors (e.g., tobacco use, inactivity, unhealthy eating). Such insights are applicable to the development of new interactive (multimedia or Web-based) curricular resources. Our experience adds strength to the need for an adolescent-centered approach to curriculum development.

The use of similar-age facilitators to engage youth in discussions around sensitive topics worked well to enhance the research process with adolescents. We believe that practitioners responsible for the delivery of interventions to modify risk behaviors need to consider flexible delivery models that promote youth engagement. In this way, youth in the presence of peers and adults (teachers, nurses, and other professionals) can begin to engage in meaningful discussions about risk-taking behaviors that affect their lives. Although we found that our participatory approach engaged youth and made them more selfaware, we cannot ensure sustained social action and capability; additional research using longitudinal designs is required.

Conclusion

Our findings in this study highlight the importance of participatory approaches combined with the transformative potential of arts-based methods in developing prevention resources that are in harmony with the experiences and meaning that adolescents ascribe to the development of prevention skills for sexual risk-taking behaviors. Although our study focused on the development of STIprevention skills, our results are relevant to those developing prevention resources in other areas of risk behavior. Our approach to curriculum development worked well to promote the maximum participation of youth, and enabled them to identify the issues that negatively affect their lives and circumstances, as well as ways of addressing them. Such an approach might be the best way to address the serious health challenges that continue to affect the health and well-being of adolescents.

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