Qualitative Analysis of an Educational Intervention with HIV-Discordant Heterosexual Latino Couples

David Pérez-Jiménez, PhD*; Rosaura E. Orengo-Aguayo†

Objective: This qualitative analysis elucidates the potential elements of the intervention that may be effective in terms of a) increasing knowledge about HIV/AIDS in the members of this population; b) increasing the use of male condoms and the practice of mutual masturbation; and c) changing opinions toward male condom use and mutual masturbation.

Methods: Five heterosexual HIV-discordant couples participated in the adapted intervention, which consisted of four three-hour-long sessions. One month after the intervention, we conducted a qualitative semi-structured interview with every participant to evaluate issues related to the process and content of the activities comprising the intervention, the impact of the intervention, logistics, and recruitment and retention as well as to make a more general evaluation. The information was submitted to qualitative content analysis.

Results: After the intervention, participants reported having better attitudes regarding safer sex, particularly in terms of condom use. A reason given by the participants to feel more positive toward condom use and mutual masturbation was that these practices could prevent the infection of the HIV-negative partner.

Conclusion: This study provides important evidence of an intervention that promises to be efficacious in preventing some high-risk sexual behaviors among Latino HIV-discordant heterosexual couples. The evidence presented seems to suggest that an intervention that includes basic relevant information about HIV/AIDS, that explains the benefits of condom use and other safer sex options, and that provides effective negotiation and communication strategies could significantly reduce HIV transmission among these couples. [*P R Health Sci J 2011;30:188-194*]

Key words: HIV-discordant couples, Condoms, Mutual masturbation, Latinos

In the absence of a vaccine that can prevent the acquisition of the HIV infection, changing sexual behaviors among HIV-positive individuals and their non-infected sexual partners has become a priority to change the course of the AIDS epidemic. Having unprotected sex has been identified as one of the most important risk factors for this population (1, 2). Likewise, pregnancy rates similar to those in the general population have been found among HIV-discordant couples (3). The availability of retroviral therapies and new treatments also have an effect in terms of reducing concern about HIV transmission and thereby creating a false belief that AIDS is a curable disease (4). Based on this belief, some people may feel that there is no need for protection from a "curable" disease.

Until recent years most prevention efforts focused on preventing the infection in individuals assumed to be HIV-negative. These efforts have emphasized the role of the HIV-negative person in preventing the infection but not that of the HIV-positive individual. Research shows that interventions targeted at HIV-positive individuals do reduce high risk sexual behaviors (5-9). However, prevention among HIV-discordant couples continues to be an understudied area (10), particularly among those that are Latino. A meta-analytic review of published counseling and testing interventions with HIV-positive individuals identified 27 studies, of which only three were conducted with serodiscordant couples (11). Results from these studies revealed that, in terms of reducing the incidence of unprotected intercourse and increasing condom use, HIV prevention counseling and testing interventions were more effective in HIV-discordant couples than they were in HIV-negative and untested participants (12-14).

Other studies that have examined gender differences have revealed that HIV-positive women reported significantly more acts of unprotected penile-vaginal sex compared with what has been reported by HIV-positive men (15). However, HIV-positive men reported significantly more acts of unprotected receptive oral sex compared to what has been reported by HIV-

*University of Puerto Rico, Río Piedras, Puerto Rico; †University of Iowa, Iowa City, Iowa, United States of America

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Address correspondence to: David Pérez-Jiménez, PhD, Institute for Psychological Research, University of Puerto Rico, PO Box 23174, San Juan, PR 00931-3174. E-mail: dperez@ipsi.uprrp.edu

positive women. In these two practices, women are at a greater risk for HIV infection than men. Reasons given for not using condoms also varied by gender. While women reported partner refusal as their reason, men reported that their partners did not ask them to use a condom.

As previous data show, intervening with HIV-discordant couples may be one of the most effective and strategic ways to stop the progression of the HIV pandemic. In response to both the increasing number of HIV infections resulting from heterosexual contact in Puerto Rico and the need for preventive interventions targeted specifically to this population, we adapted and implemented an educational intervention aimed at HIV-discordant heterosexual Latino couples. The intervention was adapted to meet the prevention needs of HIV-discordant heterosexual couples. In this paper we present the findings of the qualitative analysis of the intervention. This analysis elucidates the potential elements of the intervention that may be effective in terms of a) increasing knowledge about HIV/AIDS in the members of this population; b) increasing the use of male condoms and the practice of mutual masturbation; and c) changing opinions toward male condom use and mutual masturbation.

Methods

Participants

Five Puerto Rican HIV-discordant heterosexual couples participated in this study. Two of the men and three of the women were HIV-positive. The two men had been infected through needle sharing and the women through sexual relations. The average age of the participants was 45 (range of 32-57). Four couples were legally married; both spouses in three couples worked full time, while those in the remaining two worked part time. Three individuals disclosed that they were handicapped. Six reported a monthly income of $500-$1,000. Three had graduated from junior high school and one from high school; only one had a bachelor's degree. The majority (n = 6) self-identified as Protestant; and three as Catholics.

Procedures

Description of the Intervention

The intervention is based on the Information-Motivation-Behavioral Skills model of behavior change (16, 17). The model promotes the notion that AIDS risk-reduction information, motivation, and behavioral skills are important determinants of AIDS-preventive behavior (18). Its authors state that having more accurate information about HIV transmission and prevention and being motivated to engage in HIV preventive behavior will influence the acquisition and development of the necessary behavioral skills for AIDS-preventive behavior.

To adapt the intervention, we conducted three focus groups: one with HIV-positive men, one with HIV-negative women (partners of the HIV-positive men), and one with HIV/AIDS health care providers. The basic characteristics of the original intervention were presented to the participants. We asked for their recommendations regarding any contents of the intervention that they felt needed to be modified. A preliminary version of the modified intervention manual was provided to a group of experts for their revision and recommendations.

The intervention consisted of four sessions lasting three hours each. The goals of the adapted intervention were to a) increase the HIV-negative partners' risk perception of HIV infection; b) increase knowledge and skills with regard to the use of male condoms and the practice of mutual masturbation; c) increase self-efficacy with regard to male condom use and the practice of mutual masturbation; d) develop positive attitudes toward male condom use and the practice of mutual masturbation; and e) increase the frequency of male condom use and the practice of mutual masturbation as safer sex methods. All of the participants were together for sessions one and four; in sessions two and three, they were segregated by gender.

The first session, titled "The ABC of HIV/AIDS," had the following objectives: a) to introduce the research team; b) to provide a general overview of the intervention; c) to provide basic information about terms such as *viral load*, *CD4 cells*, and *treatment options* and explain how they pertain to prevention; d) to provide basic information about HIV transmission and prevention; e) to emphasize the advantages of using male condoms and of practicing mutual masturbation as safer sex practices; and f) to administer a pretest. Session two was titled "Talking Clearly About the Male Condoms and Negotiating Their Use." The objectives of this session were to a) promote self-efficacy in terms of negotiating condom use; b) promote the acquisition of skills for negotiating condom use; c) develop conflict management skills that can be employed if one's partner refuses to use a condom; d) discuss barriers and facilitators related to the use of condoms; and e) identify and reflect upon the factors in the participants' relationships and social contexts that could contribute to either facilitating or impeding the use of condoms. Session three was titled "Talking Clearly about Mutual Masturbation" and its objectives were to a) talk about mutual masturbation (MM); b) demystify wrong ideas about MM; c) promote positive attitudes toward MM as a safer sex method; d) promote the acquisition of skills to practice MM; and e) identify and reflect upon the factors in the participants' relationships and in their social contexts, that could facilitate or impede the practice of MM. The last session was titled "Living with HIV/AIDS," and its objectives were to a) discuss how stressful it may be to disclose or not disclose one's HIV/AIDS status to family and friends; b) reflect upon the advantages and disadvantages of disclosing one's HIV/AIDS status; and c) develop skills for disclosing one's HIV/AIDS status to family and friends.

Description of the Interview

One month after the intervention we conducted a qualitative semi-structured interview that included six questions about recruitment and retention, ten questions about the process and content of the activities, nine questions about the impact of the intervention, three questions about logistics (e.g., place, meals, and telephone follow-up), and one general evaluation question. The interviews lasted approximately 30 minutes and were held approximately one month after the intervention, from June through July of 2007. Interviews were audio-taped with the permission of the participants. The research staff conducted the interviews in Spanish, given that this was the primary language of the participants. Before initiating the interview, the procedure was explained to the participants, and all of their questions and concerns were addressed. When the interview concluded, participants were thanked for their collaboration and were provided with a $20.00 incentive. All interviews were transcribed in Spanish in order to facilitate the analysis. Quotes from the participants that were used to support the results were later translated from Spanish into English and subsequently back translated to ensure accuracy. All procedures were previously approved by the Institutional Review Board of the University of Puerto Rico (#0405-121).

Data Analysis

Data were analyzed using the qualitative content analysis method (19-21). The "qualitative content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and indentifying themes or patterns" (21, p. 1278). More specifically, we conducted a conventional content analysis (21), also known as an inductive approach (19). This analysis is recommended for studies that aim to describe a phenomenon or ones in which categories are expected to emerge from the data (21). According to Hsieh & Shannon (21), "Knowledge generated from … content analysis is based on participants' unique perspectives and grounded in the actual data" (p. 1280). This analysis is similar to grounded theory or phenomenology, but the main difference is that conventional content analysis is limited to concept development or model building (21). "This analysis includes open coding, the creation of categories, and abstraction. Open coding means that notes and headings are written in the text while reading it" (19, p. 109). Then, categories are created, grouped, collapsed, and organized in hierarchical order. Finally, the abstraction is related to formulate a general description of the research through the use of the categories.

Interviews were audio-recorded and transcribed, and a codebook was developed to perform the qualitative content analysis. When data reflected associations or overlap, thematic categories were refined, merged, or subdivided. This process continued iteratively until thematic saturation was achieved and the organization of the conceptual coding framework was stabilized. A formal codebook was developed to include categories and illustrative texts. Next, transcripts were formally content coded.

To ensure coding reliability, all data were independently rated using a double coding technique, which entailed that two persons observe and code the data independently, later meeting to reach consensus (22, 23). These two persons were graduate psychology students who were members of our research team. They had prior experience coding qualitative data and were re-trained to guarantee they had the necessary knowledge and skills to perform the analysis. Interrater discrepancies were discussed and resolved. When consensus about the appropriate coding of a given text passage could not be attained, the disputed passage was excluded from further analyses. New categories that did not appear to fit into the conceptual framework were discussed by the research team and modifications made when appropriate. A taxonomy of key categories was assembled for each question of interest, and illustrative quotes relevant to these categories were extracted from the transcripts through the consensus of the two raters. Throughout the analytic process, decision trails were documented to assure that interpretations were supported by the data. All quotes from participants were translated from Spanish to English by a professional translator. NVivo 7 software (24) was used for data management and analysis.

Results

In this section we present the findings from the qualitative content analysis that was performed. The following five categories emerged from the data: a) knowledge about HIV/AIDS; b) male condom use; c) practice of mutual masturbation; d) opinions about condom use; and e) opinions about mutual masturbation.

Knowledge about HIV/AIDS

Some participants opined that the information about the medical aspects of HIV was relevant and very important. Even though some of them were HIV positive, those who were did not know much about how the virus affected their bodies or what they should do to maintain their health.

> CDT-4 cell counts, viral loads, you know, all that stuff; well, now I have a little more knowledge about it all and we can deal with it. Like suppose someone has a high viral load, well, that means the person's defenses are low, you know, their system is down, they have some weakness, or maybe they're not taking good care of themselves, or maybe they don't have access to the medications they should be taking and haven't kept up with the lab tests to know what their viral load is and how their CDT levels are looking. You know what I mean … so all that stuff, well, now I have a little more awareness about it all. (M)

They also increased their awareness of the need to use condoms and practice mutual masturbation as safer sex methods.

I learned how to use and put on a condom because I am— I was really against condoms, but now I'm using them. A long time ago I never used them, and [partner's name] has something that doesn't seem to be contagious, you know; but still, I can't be taking those kinds of risks. Now I'm using them. (M)

Well, about condoms, because you know, I'm going to be very honest, I didn't know there were so many new kinds of condoms. I really didn't know! Since we hadn't ever used them, we had to learn, and I told [partner's name], and he bought the kind with the little ribs or whatever. (W)

Male condom use

Seven participants (4 women and 3 men) confirmed that they started to use or increased their use of condoms. Reasons for using condoms included a) to prevent infecting the HIV-negative partner, b) knowing now how to use them and knowing the varieties of condoms available.

After participating in this and everything, we always use condoms; if not, we don't do it. Even though it's not quite as pleasurable that way, but it's better. (W)

Well, as far as changes I would say that I'm now using condoms whereas I didn't use them at all before. And I learned about all the different kinds of condoms there are, the ribbed ones, the latex ones, the thicker ones, the smoother ones. I have to use the ones that are really, really, really thin because it feels like a foreign object. You know, my penis isn't used to putting on a condom; I feel like I have a big piece of rubber on, but I've had to deal with it, and I have gotten used to it, little by little. (M)

Practice of MM

We found that this activity was not as frequent as was the use of condoms. Only three participants (2 men, 1 woman) disclosed that they had started this practice. The reasons for implementing this practice included the facts that it is a) a risk-free activity in terms of the acquisition of HIV and b) that it is an alternative to penetration.

Well, like I told you before, that's one of the things that I've changed, you know, one of the things I've gotten out of it, at least the way we use mutual masturbation, like mutual masturbation, you know, for both of us sometimes, which is one of the ways, well, for her to feel good and for me to feel good too. And then she doesn't have the headache of worrying if she's going to be infected or not. I'm trying to get us to do it a little more, a little more frequently. (M)

As far as what we've done, because sometimes I've been on top of him watching television, and I start caressing his nipples, and then it has gotten, you know, we've done it without penetration as they say. Yeah, we've done it that way. (W)

However, three of the women expressed negative opinions toward this activity. Some of the reasons for these opinions included a) the belief that this act is a sin, b) that it does not provide complete satisfaction (as does penetration), c) that this activity, when attempted by the male partner, can cause pain, and d) that this activity tires the hand of the woman.

Well, we don't really do that because we understand that the word of God says it is a sin. … (W)

… He does masturbate, but, how can I tell you, sometimes I'm asleep … and he wants me to, but honestly I don't like it, because […] I am left with that furor, you understand, and then I feel like, I don't know, I feel lame and take a bath. I smoke a couple of cigarettes because I am left with something [sexual arousal], because in my case the man comes like that [fast], but for the woman, masturbation does not satisfy her; what satisfies is penetration.… (W)

This woman also said,

… I am also very sensitive, and sometimes when he does it to me, he masturbates me, and after a while it hurts me … (W)

Finally, another woman said,

… My hand gets tired doing that to him. I remember the last time and my hand got tired, and I said, hey, you finish it. (W)

Opinions about condom use

Nine participants (4 men, 5 women) disclosed that, as a result of the intervention, their beliefs and attitudes toward condoms became more positive. Some of the reasons given for being motivated to use condoms included the following: a) condoms are a way to protect him and his partner, b) using some of the different kinds of condoms that are available can actually increase pleasure; and c) the perception that the non-infected partner is more susceptible to becoming infected.

That it [a condom] is good, that it is very effective to use it, since it protects you, it protects your partner. It's like using a shield to protect your partner, who's not infected. And if your partner is infected—if we are both infected—well then we're protecting each other mutually. (M)

To be honest, I never used them before, but I bought some that have like little horns. (M)

… I am going to be very honest with you, I didn't know there were so many new [kinds of] condoms. Really, I didn't know. […] I said to [partner's name], and he bought those ones that have the little horns. (W)

… You get motivated because when you hear what may or may not happen to you, it's like you realize and say, no, you have to do something. (M)

[I've learned] what safe protection is, what it means for something to be safe, that this should never be missing in a relationship in which one partner is [HIV] positive and the other isn't, that this should always be there, before the relationship, before a kiss … even when you're just talking about a kiss, there should be a condom in the picture in order to have safe sex. (W)

Opinions about MM

Four participants (2 men, 2 women) declared that, as a result of the intervention, their beliefs and attitudes toward mutual masturbation became more positive. The reasons for changing their opinions included the following: a) they learned that mutual masturbation is not a bad thing and b) the HIV-positive partner will not have the concern to infect the HIV-negative partner.

> …For her to feel good and me to feel good, and then she doesn't have that headache of, am I going to become infected or am I not going to become infected. I am promoting it [MM] to see if we can do it more often. (M)
>
> How to use one, the importance of having condoms and of masturbation because I always said to him, hey, why do you masturbate if you have a woman? You know, it really bothered me. … People do it, everyone has. … But it's just that I don't do it; it doesn't satisfy me, but it's actually good to do it. … I learned that, that masturbation is not a bad thing. You know it shouldn't bother me, either. And the last thing, whether or not to reveal [HIV status to a partner], I liked that; that was the part I liked the best. (W)

Discussion

Judging from the results of the qualitative evaluation, we estimate this study has shed light on some of the elements of the intervention participants perceived to be important. Participants reported a positive behavior change, an increase of knowledge with reference to HIV (in general) and viral loads as well as a similar increase regarding other medical aspects of the infection. Specifically, this last point was important because it allowed the HIV-negative partner to be more aware both of his or her HIV-positive partner's illness and of the care that must be taken to help that partner stay healthy (e.g., ensuring that medication is taken, checking viral loads, avoid becoming re-infection etc.). Likewise, increasing their awareness of the effects of HIV might have alerted the HIV-negative partners (who may have not been concerned about the disease) to the very real dangers that the infection poses to both partners.

With this new information, partners became more supportive of each other as well as becoming more aware that HIV is an illness with serious consequences, an illness that calls for the use of protection, such as condoms, in order to prevent the HIV-negative partner from becoming infected. This can be evidenced in participants' verbalizations of increased awareness about the importance of condom use and of alternative safer sexual practices such as mutual masturbation. The data (particularly those pertaining to the male participants) suggest that this intervention can be effective in changing general opinions about condoms and in fostering positive attitudes about HIV prevention through their use.

For example, during the interview participants expressed negative attitudes regarding condom use before the intervention, either because condoms were uncomfortable or because the participants just did not believe it was important to use them. However, after the intervention, participants evidenced increased understanding about the importance of using protection as well as concerning the variety of options they had regarding brands and types of condoms. Furthermore, nine of the ten participants evinced positive attitudes toward the use of condoms as a result of the intervention.

This study also suggests that promoting safer sex practices in people infected with HIV may be more effective if the partners of those people are also included in the intervention. Further studies are needed to corroborate the findings. Traditionally, HIV preventive interventions have been conducted at the individual level, focusing mainly on providing basic information about the disease and about protection for women, based on the premise that they will then have the power to negotiate safer sexual practices with their partners (25). These interventions have failed to consider the central role that relationship dynamics and gender roles play in HIV prevention (26).

In this study, participants consistently expressed the idea that it was important to use protection and to practice safer sex because they did not want to place their partners at risk of becoming infected. Therefore, by having both partners participate in the intervention, each might have become more aware of the importance of using protection in order to preserve the HIV-negative partner's safety, and they may have also acquired the necessary skills to negotiate condom use. It is also possible that knowing that one's partner is participating in the same intervention empowers individuals (particularly women) to demand the practice of safer sex in the name of the couple's health and wellbeing.

This is important when we consider that previous research has found that gender roles and unequal power relationships constitute one of the main barriers to HIV prevention (27). The fact that traditional gender roles perpetuate the notion that men are the ones who make all of the decisions regarding sex, such as when to use or not to use a condom, has been a major stumbling block in HIV prevention (28). An intervention aimed at couples, as opposed to individuals, increases partner communication skills. Issues of sexuality, including the importance of using condoms, can be addressed in a more comfortable setting as both members of a given couple are aided by professionals and by other couples whose circumstances are similar.

The results of this intervention have important implications for the prevention of HIV transmission among HIV-discordant heterosexual couples. A comprehensive intervention that includes basic information about HIV/AIDS explains the benefits of condom use and other safer sex practices such as mutual masturbation, and provides effective negotiation and communication strategies for couples. Such an intervention

could significantly reduce HIV transmission among heterosexual couples. Specifically, condom use among serodiscordant couples could continue to increase if interventions take into consideration the specific dynamics within a relationship and the need for both partners to understand both the consequences of the illness and the ways in which they can help prevent their partners from acquiring it. Only when "convincing" a partner to use a condom is replaced by the mutual understanding and agreement among couples that safer sexual practices are fundamental to the wellbeing of both partners will the spread of HIV among serodiscordant couples begin to decrease.

Finally, this study had an important limitation, which was its small sample size. Although this study was conceived as a pilot study, we were expecting to recruit 24 couples. However, this was not possible because of a major limitation with regard to the recruitment of participants (29). We found that HIV/AIDS-related stigma is still a serious concern for these couples, thus making it difficult for them to trust people they don't know. They do not want to disclose any aspect of their HIV status. Another barrier to recruitment we came upon was the lack of support from primary partners. Because this is a couple's intervention, both partners must make a commitment to attend all of the sessions.

Resumen

Objetivo: Este análisis cualitativo elucida los posibles elementos de la intervención que puede ser eficaz en términos de a) aumentar el conocimiento sobre el VIH / SIDA en los miembros de esta población, b) aumentar el uso de preservativos masculinos y la práctica de la masturbación mutua, y c) cambio de opiniones con respecto al uso del preservativo masculino y la masturbación mutua. Métodos: Participaron de este estudio cinco parejas heterosexuales VIH-discordantes. Las parejas asistieron a una intervención la cual consistió de cuatro sesiones de tres horas cada una. Un mes después de la intervención, realizamos una entrevista cualitativa semi-estructurada con cada participante para evaluar asuntos relacionados con el proceso y el contenido de las actividades, el impacto de la intervención, la logística, el reclutamiento y la retención, así como también realizar una evaluación más general. Analizamos la información mediante el método de análisis de contenido cualitativo. Resultados: Después de la intervención, los participantes reportaron tener mejores actitudes sobre el sexo más seguro, particularmente el uso del condón. Una razón ofrecida por los participantes para sentirse más positivos hacia el uso del condón y la masturbación mutua fue que estas prácticas pueden prevenir la infección de la pareja VIH-negativa. Conclusión: Este estudio proporciona evidencia importante de una intervención que promete ser eficaz en la prevención de conductas de alto riesgo sexual entre parejas heterosexuales latinos VIH-discordantes. Los resultados presentados parecen indicar que una intervención que incluya información relevante sobre el VIH/SIDA, que explique los beneficios del uso del condón y otras opciones de sexo más seguro y proporcione estrategias de comunicación y negociación sexual efectivas puede reducir significativamente la transmisión del VIH entre estas parejas.

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