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Men and women have specific needs that facilitate enrollment in HIV-prevention counseling

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Abstract

Although reducing HIV risk is a primary motive for the design of HIV prevention interventions, the goals of the clients may be very different. Social theories of gender suggest that women, who often seek to resolve social and relational problems, may see HIV-prevention counseling as a mean of resolving partner violence. In contrast, men, who often worry about their physical strength, may seek to enroll in HIV-prevention programs when they experience physical symptoms unrelated to HIV. An unobtrusive study was conducted to observe enrollment in HIV risk-reduction counseling after measuring partner-violence complaints (e.g., feeling threatened or being hit), emotional complaints (e.g., fatigue or anxiety), and physical complaints (e.g., cardiovascular or digestive symptoms). The sample was a group of 350 participants, 70% clients from a state-health department in North Central Florida and 30% community members. Consistent with predictions, complaints of partner violence had a positive association with enrollment in women but not in men, whereas complaints about physical health had a positive association with enrollment in men, but not in women. Emotional complaints did not predict enrollment in either gender group. This study suggests that broad, gender-specific population needs must be competently addressed within HIV-prevention programs and may be strategically used to increase program enrollment.

Keywords

HIV prevention; meta-intervention; enrollment; dissemination; gender

What triggers somebody to enroll in HIV-prevention interventions? Is enrollment more likely when people experience domestic violence or feel that their physical health is poor? Are the needs underlying enrollment in HIV-prevention counseling different for women than men and broader HIV? Responses to these questions may appear to be negative given that HIV-prevention planning is largely based on HIV-risk reduction rather than meeting more general social or health needs. But people's motivations to enroll in HIV-prevention interventions may be broader than the HIV-prevention needs anticipated by policy-makers. Motivation may also be contingent on the gender of the population. Surprisingly, however, the needs underlying men's and women's enrollment in HIV-prevention interventions have received minimal attention and therefore remain central to successful efforts to curb infections. This article attempts to reduce this important gap in public health knowledge.

Over the years, demographic and social factors including gender have been shown to influence health-service utilization (Sohler, Li, & Cunningham, 2009; Tedstone Doherty & Kartalova-O'Doherty, 2010). Immigrants use walk-in clinics and emergency rooms more

than nonimmigrants (Leduc, 1999; Leduc, Proulx, & Sevigny, 1999), and women are often reported to utilize health services to a greater extent than men (Holland, Bradley, & Khoury, 2005; Mackenzie, Gekoski, & Knox, 2006; Mozes & Shmueli, 1998). The findings of gender differences, however, vary across studies and come primarily from studies that examine psychological services. Some studies have revealed that women are more open to psychological help than men (Fischer & Farina, 1995; see also Garland & Zigler, 1994; Husaini, Moore, & Cain, 1994; Leong & Zachar, 1999; Rickwood & Braithwaite, 1994; Solberg, Ritsma, Davis, Tata, & Jolly, 1994; Tata & Leong, 1994), whereas others have found either no gender differences (Atkinson, Lowe, & Matthews, 1995), or gender differences only in some ethnic groups (Sue & Kirk, 1975). Little has been done in the area of HIV prevention, with the exception of a meta-analysis of enrollment data showing higher enrollment rates in women than men (Durantini & Albarracin, 2009; Noguchi, Albarracin, Durantini, & Glasman, 2007). Despite attention to enrollment rate differences, there is a dearth of research on the motivations that lead men and women to enroll in health interventions, let alone HIV-prevention interventions (see Galdas, Cheater, & Marshall, 2005). Explanations for gender differences in enrollment include that men are more frequently uninsured than women (Bond, Lauby, & Batson, 2005), ethnic-minority men are more discriminated against than their women counterparts (Centers for Disease Control and Prevention, 2003; Human Right Watch, 2010; Skiba, Michael, Nardo, & Peterson, 2000), and traditional masculine behavior devalues help seeking as a sign of weakness (Galdas et al., 2005; Smith, Pope, & Botha, 2005). Prevalent notions contend that men are not permitted to disclose malaises because the construction of traditional masculinity locks them into a socially prescribed role that has no place for vulnerability (Courtenay, 2000; Davies et al., 2000; Forrester, 1986; Helgeson, 1987; Lloyd, Jenkins, & Mann, 1996; Mohler, Kppler, Gonalves, & Gianella, 2005; Robertson, 2001). This explanation seems viable because neither men nor women who are resistant to seek help trust their health-care providers to believe that their pain and suffering are real (Smith et al., 2005) and both groups expect interactions with health services to be shameful and humiliating (Malterud, 2005; Nadler, 1985; Smith et al., 2005).

Even in the absence of mean differences in enrollment across men and women, there may be critical differences in the needs that lead men and women to seek HIV-prevention counseling. Meta-analytic data (Durantini & Albarracin, 2009), for example, have indicated that women enroll and stay in HIV-prevention interventions delivered to groups. In contrast, men enroll and stay in interventions delivered to individuals and offering such incentives as health care or payments. Although these data suggest gender differences in the role of social vs. instrumental needs, the studies synthesized in the meta-analysis provided no measures of the needs of clients. Very few studies provide data on enrollment. In this article, we present a study in which the social, emotional, and health concerns of men and women were measured directly and correlated with enrollment in an upcoming session of HIV-prevention counseling.

Understanding service use, and specifically enrollment in HIV-prevention interventions, may benefit from theorizing about socially based gender differences. Social psychological research has found that heterosexual males and females differ with respect to their goals of agency (i.e., focus on the self and autonomy) and communion (i.e., focus on other people and relationships; Bakan, 1966; Helgeson, 1994). Due to a combination of biological and social factors, men are more likely to develop personality traits related to agency, whereas women are more likely to develop personality traits related to communion (Helgeson, 1994). Moreover, women are subjected to specific concerns with respect to relationships, particularly when they suffer emotional and/or physical abuse by their partners (Kernick, Wolf, & Holt, 2000). From this perspective, men may enroll in interventions to improve their general health and strength (see e.g., Duncanson, 2005; Pearson, 2003; Pinkhasov et

al., 2010), whereas women may be more attracted to interventions to address emotional needs and relationship problems (for speculation about these issues, see Durantini, Albarracin, Mitchell, Earl, & Gillette, 2006). Of course, men and women are also likely to enroll in HIV-prevention interventions based on deficiencies in their current condom use. HIV-prevention risk is the obvious factor that leads researchers to attempt to enroll clients into risk reduction programs, but it is likely not the only need clients attempt to fulfill when they agree to enroll.

Method

In our study, a sample of 350 sexually active, north Floridian men and women were recruited for a health interview. Halfway through the interview, the interviewer paused the administration and announced a 30-minute break. At this point, an observer/counselor entered the room to perform work unrelated to the interview and unobtrusively observed the participant's enrollment in a brief HIV-risk-reduction counseling session. The enrollment behavior was analyzed as a function of various complaints measured before the counseling offer was made. Specifically, participants reported on various physical complaints, such as whether they regularly experienced heart palpitations, upset stomach, headaches, or muscular pain. They reported if they were overtly abused by their sexual partners, and if they felt nervous, anxious, unsafe, or threatened in the presence of their partners. Past condom use and intentions to use condoms, as well as various demographics, were measured. The analyses compared enrollment across gender groups.

Results

Descriptive results and differences across genders

A description of the sample appears in Table 1. This sample is characteristic of the impoverished clients of North Central Florida and the Southeast of the US. As described in Table 1, the sample was relatively young, African-American, poor. The participants also had an average of two children. Importantly, the sample was at considerable risk for HIV and sexually transmitted infections (STIs) as indicated by the number of recent STIs. Specifically, participants were asked "in the past year, how many times have you had a sexually transmitted disease such as Syphilis, Gonorrhea, Herpes, or Chlamydia?" in response to which 11% of males and 13% of females reported at least one STI during the past year. Participants were also at risk due to their low level of condom use (21% reported using condoms all the time), and high number of partners (29% of the males and 22% of the females had had more than one partner during the last three months, with between 2 and 10 partners for males, and 2 and 7 partners for females).

The sample characteristics in Table 1 were compared across men and women by means of analysis of variance for continuous variables and chi-square tests for categorical variables. Men (vs. women) worked more hours, had a higher average of alcoholic drinks per week, were less likely to have a main partner, and had more physical complaints than women. Women (vs. men) had more emotional complaints than men. No other group difference was significant. Counseling enrollment tended to be higher in women, but this difference was not statistically significant.

Predictors of counseling enrollment in men and women

We predicted that different needs may lead men and women to enroll in counseling, and that these needs could be broader than HIV-risk reduction. To test these possibilities, we conducted a logistic regression in which enrollment in counseling (yes = 1) was predicted from all of the variables in Table 1. In addition, this equation included the variables related

to physical, emotional, and partner-violence complaints as well as past sexual behavior and interactions between these measures and gender (dummy coded so that 1 = women, 0 = men). This analysis appears in the first panel of Table 2 and shows significant interactions of gender with physical complaints and partner violence. The decomposition of this interaction was conducted by repeating this logistic regression but separately for women and men and without the indicator variable for gender or interactions involving gender. These regressions appear in the bottom panels of Table 2 and show clear-cut differences in the needs associated to enrollment in each gender group. Physical complaints had a positive association with enrollment in men but not in women, whereas partner violence had a positive association with enrollment in women but not in men. No other interactions reached significance.

Discussion

Over the years, demographic and social factors have shown to contribute to people's decision to participate in health promotion programs (Sohler et al., 2009; Tedstone Doherty & Kartalova-O'Doherty, 2010). Migratory status has also proved to influence the use of health services (Kim et al., 2010; Kim, Jang, Chiriboga, Ma, & Schonfeld, 2010; Leduc, 1999; Leduc et al., 1999; Nandi et al., 2008). Nonetheless, there has been little attention to the individual motivation for enrollment in HIV prevention programs, except for a couple of meta-analyses (Durantini & Albarracin, 2009; Durantini et al., 2006; Noguchi et al., 2007), even when the government has been spending vast resources on that field. Motivations for enrollment in HIV-prevention programs are a scarcely studied topic, even when researchers and practitioners have developed many creative resources for attracting reluctant audiences. Filling this gap, the current research showed that enrollment in HIV-prevention interventions differs between men and women and is facilitated by needs broader than HIV-risk reduction.

The present article summarizes results from a study conducted with 350 participants, providing important information about their motivations: women, who worry about their relationship with a violent partner, pay relatively smaller attention to their HIV-risk reduction needs and are more strongly attracted to interventions that provide social support and may allow them to discuss relationship issues (Durantini & Albarracin, 2009). Men, who are usually more reluctant to seek medical care than women (Mackenzie et al., 2006; Sohler et al., 2009), looked more ready to accept an opportunity to talk about health when they had health-related concerns to begin. We can hypothesize health counseling was relatively not threatening to men and thus provided an avenue to addressing their health concerns. Another explanation for our findings related to factors influencing men's acceptance of counseling would be that men's health concerns are likely to be more serious than women's because the mean turn to medical services less frequently than women.

Therefore, interventions may need to meet women and men's personal goals and thus package HIV-risk reduction among other goals of concern for the recipients of the intervention. Given that interventions should reach vulnerable audiences and not just willing ones, it is imperative to develop procedures that increase participation by the needed populations (Albarracin, Durantini, & Earl, 2009). Procedures can be designed to change an audience's behavior with respect to the preventive interventions themselves, including enrollment. These procedures, termed *meta-interventions*, entail a standardized introduction or context change (e.g., delivery setting) intended to increase exposure to a behavioral intervention (Albarracin et al., 2009). In the context of our findings, invitations to HIV-risk-reduction counseling should highlight the ability of counselors to provide assistance with family violence, as well as more general health concerns. Such procedures, combined with

more comprehensive training for counselors, should ensure the availability of services that match the needs of the clients in addition to public health mandates.

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Table 1

Descriptive statistics for overall sample and gender groups.

	Overall (N = 350)	Women (N = 260)	Men (N = 90)	Test of differences
<i>Demographics</i>				
Counseling acceptance	28%	29%	25%	$\chi^2_1=0.48$
Age in years	32.11 (SD = 9.75)	31.81 (SD = 9.54)	33 (SD = 10.33)	$F_{1, 349} = 1$
% participants with annual income under \$10,000	61%	64%	55%	$\chi^2_1=2.29$
Education	12.63 (SD = 2.25)	12.55 (SD = 2.05)	12.84 (SD = 2.74)	$F_{1, 349} = 1.15$
Weekly hours at work outside of home	17.32 (SD = 21.33)	14.92 (SD = 19.14)	24.28 (SD = 21.33)	$F_{1, 349} = 15.09^{***}$
<i>Ethnicity</i>				
African-American	65%	68%	58%	$\chi^2_1=4.28^*$
European-American	28%	27%	33%	
Latino	3%	3%	2%	
Other	4%	3%	7%	
Number of children	1.81 (SD = 1.69)	1.87 (SD = 1.67)	1.64 (SD = 1.97)	$F_{1, 349} = 1.20$
<i>Risk behaviors</i>				
Average number of alcoholic drinks per week	3.54 (SD = 8.06)	2.82 (SD = 7.85)	5.64 (SD = 8.35)	$F_{1, 349} = 8.31^{**}$
Percentage of people who had STIs during last year	12	11	13	$F_{1, 349} = 0.13$
Percentage of people having more than one partner during the last three months (range 2–10)	24	22	29	$F_{N=350} = 3.07$
Participant has main partner	87	91%	77%	$\chi^2_1=12.78^{***}$
Mean percentage of past condom use	21 (SD = 41)	17 (SD = 35.60)	26.23 (SD = 52.7)	$F_{1, 349} = 1.93$
Mean intention to use condoms in the future	10.33 (SD = 3.03)	10.46 (SD = 2.95)	9.94 (SD = 3.24)	$F_{1, 349} = 0.05$
Percentage of people reporting physical complaints	0.16 (SD =)	0.18 (SD = 0.21)	11 (SD = 0.21)	$F_{1, 349} = 8.75^{**}$
Percentage of people reporting emotional complaints	0.20 (SD = 0.34)	(SD = 0.35)	(SD = 0.30)	$F_{1, 349} = 10.19^{**}$
Partner-violence complaints	0.20 (SD = 0.28)	0.19 (SD = 0.27)	0.23 (SD = 0.30)	$F_{1, 349} = 1.64$

Note: Unless otherwise indicated, entries are means.

N for chi-square tests is 350.

**
 $p < 0.01$.***
 $p < 0.001$.

Table 2

Predicting enrollment in counseling across gender groups.

Variables	Logit coefficient	SE	Wald χ^2	Odd ratio
Constant	-2.86	1.72	2.77	0.06
Age	-0.02	0.02	1.51	0.98
Income ^a	0.12	0.14	0.63	1.12
Education	0.07	0.07	0.95	1.07
Weekly hours at work outside of home	0.01	0.01	0.85	1.01
Ethnic minority ^b	0.30	0.35	0.76	1.35
Latino ethnicity ^b	1.41	0.75	3.53	4.08
Number of children	0.14	0.09	2.56	1.15
Number of STIs last year	-0.02	0.03	0.81	0.88
Mean percentage of past condom use	0.04	0.26	0.33	1.04
Number of partners	0.22	0.15	2.31	1.25
Main partner ^b	-0.10	0.14	0.42	0.91
Intentions to use condoms	0.06	0.46	0.02	1.06
Physical complaints	6.73	3.21	4.41 *	840.76
Partner-violence complaints	-3.11	2.08	2.23	0.04
Emotional complaints	0.22	2.21	0.01	1.24
Past condom use	-2.08	1.49	1.97	0.13
Female gender ^b	-0.46	0.62	0.54	0.63
Gender×physical complaints	-3.43	1.76	3.79 *	0.03
Gender×partner-violence complaints	2.26	1.15	3.89 *	9.60
Gender×emotional complaints	0.20	1.19	0.03	1.23
Gender×past condom use	1.33	0.78	2.91	3.77
<i>Women</i>				
Constant	-3.79	1.66	5.21 *	0.02
Age	-0.03	0.02	2.04	0.97
Income ^a	0.24	0.20	1.53	1.83
Education	0.10	0.09	1.23	1.10
Weekly hours at work outside of home	0.00	0.01	0.19	1.00
Ethnic minority ^a	0.35	0.41	0.74	1.42
Latino ethnicity	0.71	0.87	0.67	2.03
Number of children	0.08	0.12	0.49	1.09
Number of STIs last year	-0.05	0.05	1.40	0.95
Mean percentage of past condom use	0.08	0.27	0.08	1.08
Number of partners	0.12	0.17	0.48	1.13
Main partner ^b	-0.06	0.19	0.11	0.94
Intentions to use condoms	0.22	0.59	0.42	1.24
Physical complaints	0.04	0.88	0.00	1.04

Variables	Logit coefficient	SE	Wald χ^2	Odd ratio
Partner-violence complaints	1.41	0.59	5.79 *	4.10
Emotional complaints	0.69	0.55	1.59	1.99
Past condom use	0.83	0.60	1.90	2.97
<i>Men</i>				
Constant	-4.56	3.11	1.95	0.01
Age	-0.02	0.03	0.19	0.99
Income ^a	0.06	0.30	0.04	1.06
Education	0.01	0.14	0.01	1.01
Weekly hours at work outside of home	0.02	0.02	0.53	1.02
Ethnic minority ^b	0.61	0.80	0.57	1.84
Latino ethnicity ^b	23.46	26,580.93	0	0
Number of children	0.17	0.16	1.22	1.98
Number of STIs last year	0.03	0.04	0.69	1.03
Mean percentage of past condom use	-1.57	1.12	1.98	0.21
Number of partners	0.59	0.34	3.04	1.80
Main partner ^b	-0.27	0.40	0.47	0.76
Intentions to use condoms	-0.61	0.90	0.46	0.54
Physical complaints	4.25	2.19	3.77 *	69.77
Partner-violence complaints	-1.11	1.24	0.80	0.33
Emotional complaints	0.99	1.31	0.57	2.69
Past condom use	-1.65	1.21	1.84	0.19

^aIncome was coded as follows: 1: \$0–9999; 2: \$10,000–19,999; 3: \$20,000–29,999; 4: \$30,000–39,999; 5: \$40,000–49,999; 6: \$50,000–59,999; 7: \$60,000–69,999; 8: \$100,000 or above.

^bVariable was dummy coded by contrasting Whites with other groups.

* $p < 0.05$.