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This article introduces a theoretically based and validated measure of relationship power dynamics: the Sexual Relationship Power Scale (SRPS). Focus groups were conducted to generate items for Spanish- and English-language scales. The SRPS was administered to a census of women (N = 388) at a community health clinic. All respondents had a primary male partner; they were mostly Latina (89%), with mean age 27 years. The 23-item SRPS possesses good internal reliability (coefficient alpha = .84 for English version, .88 for Spanish version) and predictive and construct validity. Factor analyses support two subscales: Relationship Control and Decision-Making Dominance. As hypothesized, the SRPS was inversely associated with physical violence and directly associated with education and consistent condom use (p < .05).

# **INTRODUCTION**

In the fields of HIV/STD prevention and reproductive health, great interest has developed in women's ability to negotiate safer sexual practices. Sexually transmitted diseases (STDs), including infection with the human immunodeficiency virus (HIV), are an ever-growing problem for women nationwide. *The HIV/AIDS epidemic in the United States, 1997–8,* a report published by the Centers for Disease Control and Prevention (CDC, 1998b), notes that the epidemic continues to affect women disproportionately. Women, especially members of racial and ethnic minority populations, are

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the fastest growing group with HIV infection, with approximately half of these infections transmitted via heterosexual sex.

A number of researchers have suggested that women are constrained in negotiating safer sex because of gender-based imbalances in relationship power (Amaro, 1995; De Bruyn, 1992; Ehrhardt & Wasserheit, 1991; England, 1997; Felmlee, 1994; Gage, 1997; Gómez & Marín, 1996; Heise & Elias, 1995; Kritz, Makinwa, & Gurak, 1997; Mann, Tarantola, & Netter, 1992; Monahan, Miller, & Rothspan, 1997; Wingood, Hunter-Gamble, & DiClemente, 1993; Zierler & Krieger, 1989). There is no consensus on the definition of "relationship power," however. Power is a ubiquitous term, one expressed at many levels (e.g., societal, organizational, interpersonal, individual), which may help explain the difficulty of finding a universally accepted definition (Yoder & Kahn, 1992). It is also unclear how relationship power operates to influence sexual decision-making. Indeed, the most common theories applied to HIV risk reduction do not appropriately consider interpersonal power (Amaro, 1995).

While researchers have hypothesized the importance of relationship power in understanding women's ability to negotiate safer sex, few HIV/ STD prevention studies have tested this hypothesis empirically (Gómez & Marín, 1996). Even fewer studies have used established psychometric instruments to assess the construct of relationship power. Previous measures of constructs related to relationship power have typically exhibited one of a number of disadvantages. Some are general, single-item measures. Others focus on items that would be relevant only to married couples or to those with children (e.g., decisions about household tasks or child-rearing). Still others use proxy measures such as education level or income. Finally, measures are often not theoretically based. This article addresses these issues by presenting the development and validation of a theoretically based and rigorously tested measure of relationship power—the Sexual Relationship Power Scale (SRPS).

#### BACKGROUND

Different bodies of literature refer to power differentials between women and men using a variety of terms (e.g., gender inequality, gender inequity, unequal status, women's lack of autonomy). Even so, some similar ideas have emerged from these literatures, among them that power differentials existing at many levels of society are key to understanding women's risk for several negative health outcomes. Zeirler and Krieger (1989), for example, present evidence that links the risk of HIV infection among women in the United States to inequalities involving gender, social class, and

race/ethnicity. They conclude that these inequalities, which are manifest at the national, neighborhood, household, and individual levels, can explain the high rate of HIV infection among certain women, especially poor women of color.

Many writers also report that power differentials are reflected in women's intimate relationships and sexual behavior. Differences in women and men's access to power, Dixon-Mueller (1993) posits, influence decisions about intercourse, including the type and frequency of sexual practices. Similarly, Blumstein and Schwartz (1983) state that power imbalance can manifest itself in control over sexual initiation and refusal. Miller, Burns, and Rothspan (1995) propose that power inequities not only may result in different sexual behaviors for men versus women (e.g., men maintaining more sexual partners than women), but may also lead to male control over the process of safer sex negotiation. According to Amaro (1995), women may therefore be less able to avoid the sexual behaviors that place them at risk for HIV infection. The fact that men have traditionally held greater influence over when, where, and how sex will occur may render some women incapable of successfully initiating discussions about or negotiating safer sex. This issue is paramount, for to engage in safer sex practices such as condom use, male cooperation is needed (Campbell, 1995).

Results from qualitative studies have helped elucidate the role of relationship power as a barrier to safer sex behaviors among women. Feelings of powerlessness and an inability to affect risk reduction decisions or behavior with their partners were expressed during interviews with over 1000 Latinas in the United States (Amaro & Gornemann, 1992). Comments shared during a focus group study of young African American women emphasized this same point, with women stating they could not insist on condom use because they did not have sufficient power in their relationships (Wingood et al., 1993). A fear of relationship conflict or potential violence has also been reported by women were they to initiate condom discussions with their male partners (Fullilove, Fullilove, Haynes, & Gross, 1990). These findings indicate that relationship power is an important component in the safer sex negotiation process, and therefore a key factor in women's HIV/STD risk.

# A Theoretical Perspective on Interpersonal Power

This study draws on both structural and psychosocial theories for its understanding of relationship power. The Theory of Gender and Power is a structural theory focused primarily on gender-based power imbalances (Connell, 1987). Three overlapping but distinct concepts are proposed to explain the roles and behaviors of men and women: (a) economic inequality—referred to as the sexual division of labor, (b) male partner control within relationships—referred to as the sexual division of power, and (c) social norms related to gender roles—referred to as the structure of cathexis (Wingood & DiClemente, 1998). The Theory of Gender and Power postulates that gender-based inequalities are pervasive societal characteristics which result in men's disproportionate power in society and their control over decision-making in a number of areas, including the sexual arena.

Social Exchange Theory, a psychosocial theory, is built around an interpersonal definition of relationship power (Emerson, 1972, 1981). Emerson (1981) defines power as the amount of resistance on the part of one individual that can be potentially overcome by another. Power resides not in an individual actor, therefore, but in the relation between two actors. Relationship power is expressed via decision-making dominance, the ability to engage in behaviors against a partner's wishes, or the ability to control a partner's actions. According to the theory, this power is based upon a number of factors, including the dependence of one partner on the other, the amount of valued resources (e.g., economic and emotional) one partner possesses compared to the other, and whether potential alternatives to the current relationship are perceived to exist. Greater power is held by the member of the couple who maintains control over decision-making in the relationship, has control over both their own and their partner's actions, is less dependent on the relationship, possesses more resources, and is perceived to have alternatives to the current relationship.

Combined, the Theory of Gender and Power and Social Exchange Theory provide insight into how gender-based structural inequalities are manifested in individual relationships. Development of items for the Sexual Relationship Power Scale was guided by these models. Other items were adapted from previous measures of relationship power (Gómez & Marín, 1996; Kritz et al., 1997; Peplau, 1979). Additional input was gathered from members of the study population to maximize face and construct validity of the individual items. The final scale addresses the need for a concise, easily administered measure that taps into the important construct of relationship power.

# Development and Evaluation of the Sexual Relationship Power Scale

The final Sexual Relationship Power Scale (SRPS) contains two subscales, which can be used separately or combined, depending upon research requirements. The subscales concern two conceptual dimensions of relationship power: Relationship Control and Decision-Making Dominance. Two studies are reported here. The purpose of the first was to generate both Spanish- and English-language versions of the SRPS. The purpose of the second was to finalize the SRPS and to evaluate its psychometric properties, including potential differences in the Spanish- and English-language versions. To validate the SRPS, additional data were collected from study subjects on physical abuse and forced sex in their current relationship, condom use, relationship satisfaction, and a variety of sociodemographic variables. It was hypothesized that higher education level, consistent condom use, and relationship satisfaction would be directly associated with SRPS scores. An inverse relationship was expected between SRPS scores and a relationship history of physical abuse and forced sex.

#### **STUDY 1: ITEM-POOL DERIVATION**

## **Objectives**

A pilot study was conducted to derive items for a scale that measures sexual relationship power. The scale was developed by drawing from the literature on relationship power, as well as through focus group discussions with members of the study population.

#### Methods

An original pool of 40 items was generated to include theoretically relevant domains, including (a) decision-making dominance, (b) relationship control, (c) distribution of economic and emotional resources, (d) alternatives to the relationship, and (e) dependence on the relationship.

Six focus group discussions were conducted to edit and critique the original pool of items, to devise new items for the scale, and to help create Spanish- and English-language versions. Discussions were held in two community centers (n = 10, 12), a family planning center (n = 6), two high school health classes (n = 8, 11), and a substance abuse center (n = 9). Women were asked to participate in a group discussion concerning relationships and were offered \$10 and a meal as compensation. The recruitment protocol did not specifically mention relationship power or sexuality in order to minimize the potential for selection bias.

New scale items were elicited from focus group participants via openended questions. Examples of these questions include: What are the most important things that women get out of relationships with men? What are the most important decisions that people make as a couple? How do you know if you have power in a relationship? English- and Spanish-language versions of each item were developed. As recommended by Rosenthal and Rosnow (1991), all English-language items were initially translated into Spanish by a bilingual person and then tested through backtranslation into English by a second individual. The items were also edited by Spanish speakers during the focus group discussions. Finally, Spanish-language items were reviewed by a panel of professional colleagues from Puerto Rico, the Dominican Republic, Colombia, Mexico, Argentina, and Spain to ensure that a diverse population of Spanish speakers would comprehend the questionnaire.

#### **Results and Discussion**

## Sample

Focus group participants (N = 56) included community members (55%), students (34%), and HIV/AIDS educators (11%). Participants were women aged 16–44 years and represented a mix of ethnic backgrounds, including Latino (57%), African American (30%), and White (13%). The majority of Latinas spoke both English and Spanish, while some spoke solely English or Spanish.

## Item-Pool Selection

Twenty-two items were added to the original pool based on input from focus group participants (e.g., "My partner won't let me wear certain things"). Twelve of the original items were removed, some due to a lack of clarity cited by focus group participants, others due to a statistical analysis of responses (e.g., items for which almost all respondents selected the same alternative were eliminated). The final pool combines items focused on the respondent, the partner, and a comparison between the two members of the couple. Items were designed to address issues common to both dating and married couples. Statements were worded to be understood at a seventh-grade level, and double negatives were avoided (Doak, Doak, & Root, 1995). Items were worded both positively and negatively, in accordance with criteria recommended by DeVellis (1991). The complete pool consisted of 50 items, which were used in Study 2 to create the final scale.

## Answer Choice Format

A few different answer choice formats were tested during the focus groups. A simple yes/no format was rejected by many participants, who

stated that two answer choices did not provide sufficient options. Therefore, answer choices for the final pool of items consisted of one of two formats. The majority of items presented a 4-point Likert scale, ranging from 1 = Strongly Agree to 4 = Strongly Disagree. The other set of items asked about decision-making by the couple. The question stem was, "Who usually has more say about the following decisions. . ." Three answer choices were provided: 1 = Your Partner, 2 = Both of You Equally, or 3 = You.

#### Content and Face Validity

Items based on theoretical constructs and those generated during the focus groups were combined to ensure that the most relevant domains were addressed and to maximize face and content validity.

# **STUDY 2: SCALE ADMINISTRATION AND EVALUATION**

# **Objectives**

This study was designed to finalize the Sexual Relationship Power Scale and to assess its psychometric properties. A factor analysis helped inform decisions concerning the selection of the most useful items into the scale. Differences between the English- and Spanish-language versions of the scale were also investigated, as was a modified scale that eliminated condom-related items.

#### Methods

#### Data Collection

Scale items from the prototypic Sexual Relationship Power Scale were included in a questionnaire administered to female patients of an urban community health clinic. The questionnaire also included variables that were theoretically related to relationship power, including relationship histories of physical or sexual violence, education level, relationship satisfaction, and current safer sex behaviors.

Eligible participants were 18–45 years old, had a primary sexual partner, and were not attempting to become pregnant. Every eligible woman attending the clinic from February to September 1998 was asked by a clinic staff member to complete the questionnaire via an interview, either in Spanish or English, as they preferred. Questionnaires were verbally administered to permit the inclusion of women with limited literacy skills. Bilingual research staff, trained in interviewing skills, administered the questionnaires in a private office at the clinic. To ensure privacy, questionnaires were anonymous; when completed, they were sealed in manila envelopes. The refusal rate was 31%. Women who declined to participate in the study most often cited having limited time in which to complete the survey as the reason for their nonparticipation.

# Additional Measures

As part of the validation process, the association between the Sexual Relationship Power Scale and theoretically relevant variables was tested. For this purpose, scores on the SRPS and its two subscales were split into three separate and equal categories—"low," "medium," and "high" power—for ease of interpretability. Physical violence in the relationship was measured by the following item: "Has your main partner ever hurt you by hitting or kicking or punching?" Forced sex in the relationship was measured by the following item: "Has your main partner ever forced you to have sex when you did not want to?" Relationship satisfaction was measured by an item asking whether the respondent agreed with the following statement: "All in all, I am satisfied with our relationship." Education level was categorized as high school graduate and non-high school graduate. Condom use was defined as always using condoms with the primary partner during the 3 months prior to the survey. Only consistent condom use has been shown to successfully prevent the sexual transmission of HIV; inconsistent condom use is not sufficient (De Vincenzi, 1994).

# Statistical Analysis

Factor analyses were conducted to clarify scale domains. A small percentage of the 388 respondents (N = 65, or 15%) were dropped from the original factor analysis because they were missing answers for one or more of the scale items. The scale was then reduced to 36 items, and analysis of the full sample proceeded with these items. All respondents missing more than one third of the 36 items were dropped from further analyses (N =8, or 2%.) For respondents missing fewer than one third of the 36 items (N = 33, or 9%), the mean of the nonmissing items for each individual was used to replace the missing items, bringing the final sample size to 380. Factor analyses were conducted with and without this replacement, which confirmed a similar factor structure. Additional analyses were conducted on the sample of 380. Associations between the Sexual Relationship Power Scale (see Appendix for scoring procedures) and other variables were tested by the Mantel-Haenszel chi-square test for trend. Logistic and linear regression analyses were conducted to compare the English- and Spanishlanguage versions of the scale. All statistical analyses were conducted with SAS computer software (SAS Institute Inc., Carey, NC).

#### **Results and Discussion**

#### Sample

Participants in the validation study were 388 women, mostly Latina (89%) and African American (8%) (see Table I for descriptive statistics).

Health Center	Sample	
	Number	%
Age (years)		
18–24	148	39
25-31	140	37
32-45	92	24
Marital status		
Married	164	43
Living together	124	33
Dating	88	23
Other (e.g., engaged)	4	1
Race/ethnicity		
Latino	337	89
African American	31	8
White	5	1
Other	6	2
Education (years)		
≤11	141	37
12	154	41
≥13	84	22
Income (dollars)		
≤10,000	289	76
10,001-25,000	75	20
≥25,001	16	4
Consistent condom use		
Yes	28	8
No	342	92
Scale language		
English	101	27
Spanish	279	73

 
 Table I. Descriptive Characteristics of Community Health Center Sample

Note: Sample sizes vary slightly due to missing data.

They ranged in age from 18 to 45 years, with a mean age of 27 years. Fortythree percent reported being married, and 23% reported they were dating their main partner. Most of the women had completed 12 or fewer years of formal education (79%). The majority (72%) reported a personal income of less than \$10,000 during the year before the survey. Eight percent of the women used condoms consistently for vaginal sex during the 3 months prior to the survey. Although most women spoke both English and Spanish, a majority of respondents selected the Spanish questionnaire.

# Construct Validity: Factor Analysis

A factor analysis was conducted to test whether separate domains exist within the construct of sexual relationship power. Fifty items were initially included in the survey. Fourteen of these items, addressing economic and social resources, were paired to elicit the same information about the respondent and her partner (e.g., "My partner has a good job," "I have a good job"). For purposes of the scale, the main issue of interest is the relative resource contribution of the partners. Therefore, the Likert-scale scores for each pair were subtracted from one another, to create a new set of seven items measuring differences in resources between partners (range = -3 to 3). In total, then, there were 43 scale items.

An oblique rotation was used in the factor analysis to permit some correlation among the factors, which may more accurately represent domains that are related to one underlying construct (Nunnally & Bernstein, 1994). All items that received a factor loading of less than .30 were dropped from further analysis. Another factor analysis was conducted with 36 items retained. Over 85% of the variation in responses was explained by the 36 items (see Table II for factor loadings). It had been postulated that relationship power consists of five separate domains; a scree plot supported at least four domains. The four factors were labeled as Relationship Control (Factor 1), Emotional Resources (Factor 2), Decision-Making Dominance (Factor 3), and Dependence (Factor 4).

# Initial Internal Consistency Reliability

Internal consistency reliability of the four factors was ascertained using Cronbach's alpha. The four factors, Relationship Control, Decision-Making Dominance, Emotional Resources, and Dependence, achieved alphas of .86, .62, .57, and .45, respectively. The Relationship Control and Decision-Making Dominance factors were deemed reliable, while the Emotional

	nen	IS(N = 323)		
Items	Factor 1	Factor 2	Factor 3	Factor 4
1	73*	-5	-7	-23
2	70*	0	-3	-19
3	65*	0	7	5
8	62*	-5	1	5
8 5	59*	$^{-2}$	6	-8
9	59*	-3	12	12
13	58*	-31*	8	-6
4	56*	12	-6	-18
7	53*	28	4	2
6	48*	39*	-7	-9
11	46*	29	-5	21
10	44*	38*	14	14
14	43*	2	4	22
15	42*	4	8	28
12	40*	11	-6	-31*
24	-33*	-23	9	12
25	-55*	30	11	3
26	9	51*	-2	9
27	11	44*	9	14
28	-5	41*	5	12
29	4	-36*	2	25
30	28	-36*	-4	17
31	32*	-40*	-3	29
16	4	2	50*	-9
17	-5	8	46*	5
18	11	5	46*	-9
19	3	13	43*	-3
20	5	-12	42*	-11
21	8	6	38*	-2
22	8	-16	37*	-1
23	12	0	33*	-11
32	10	-21	2	47*
33	-13		-8	47*
34	16	18	-16	39*
35	11	-6	7	-33*
36	8	-6	5	-41*
% Variance	46	18	12	11

**Table II.** Preliminary Factor Loadings ( $\times 100$ ) for Relationship PowerItems (N = 323)

*Note:* Items have one of two answer choice formats: a 4-point Likert scale, 1 = Strongly Agree to 4 = Strongly Disagree; or a 3-point scale, 1 = Your Partner, 2 = Both of You Equally, or 3 = You. Items with a loading greater than .30 are starred. Factor loadings presented for analysis prior to imputation for missing values. See Appendix for full list of English- and Spanish-language items. All items are listed in order of factor loadings.

Resources and Dependence factors were not, having failed to meet a minimum standard of reliability (Cronbach's alpha  $\geq$ .60) (Nunnally & Bernstein, 1994). These later two factors were dropped from further analysis.

#### Final Scale Development

The factor analysis was repeated only including the 25 items from the remaining two factors, Relationship Control and Decision-Making Dominance. Two additional items from the Relationship Control factor were found not to add to the reliability of the scale and were dropped (DeVellis, 1991). Twenty-three items remained for the final scale (see Table III for factor loadings). Items from the Relationship Control factor explained 67% of the variation in responses, and items from the Decision-Making Dominance factor explained 19%.

The 23-item Sexual Relationship Power Scale (SRPS) combines the Relationship Control and Decision-Making Dominance factors, termed subscales from this point forward, into one overall scale. The internal consistency reliability of the overall scale, combining both Spanish- and English-language versions, is .84. The Relationship Control subscale consists of 15 items, and the Decision-Making Dominance subscale has 7. The reliabilities of the two subscales are .86 and .62, respectively.

#### Construct Validity: Related Variables

Construct validity for the relationship power measure was further assessed by testing the association between the SRPS and a set of variables hypothesized to be related to relationship power (Cronbach & Meehl, 1955). These include (a) a history of physical violence in the current relationship, (b) a history of sexual violence in the current relationship, (c) education level of the respondent, (d) satisfaction with the current relationship, and (e) current safer sex behaviors, including consistent condom use.

As predicted, these five variables were significantly associated with relationship power (see Table IV). A relationship history of physical violence (p < .01) was inversely associated with the SRPS, as was a relationship history of forced sex (p < .001). A higher education level was directly associated with the SRPS (p < .001). Women who reported satisfaction with the primary relationship were more likely to report high scores on the SRPS (p < .01). There was no significant relationship between age category and the SRPS (chi-square; p = .21). The same associations were tested for the subscales Relationship Control and Decision-Making Domi-

Items	Relationship Control Factor 1	Decision-Making Dominance Factor 2
1	71*	-16
2	70*	-14
3	61*	14
	60*	-12
4 5	56*	5
6	56*	-12
7	55*	0
8	55*	12
9	54*	21
10	53*	9
11	51*	$-2^{-2}$
12	43*	$-17^{-17}$
13	43*	21
14	43*	8
15	39*	23
16	2	49*
17	-5	46*
18	6	42*
19	-5	41*
20	-7	41*
21	-10	38*
22	-5	38*
23	-9	30*
% Variance	67	19

**Table III.** Final Factor Loadings ( $\times$  100) for ItemsContained in the Sexual Relationship Power Scale(N = 380)

*Note:* Items have one of two answer choice formats: a 4-point Likert scale. 1 = Strongly Agree to 4 = Strongly Disagree; or a 3-point scale; 1 = Your Partner, 2 = Both of You Equally, or 3 = You. Items with a loading greater than .30 are starred. Factor loadings presented for analysis after imputation for missing values. See Appendix for full list of Englishand Spanish-language items; items 24-36 were dropped for this analysis. All items are listed in order of their final factor loadings.

nance. The Relationship Control subscale is significantly related to each variable as expected (p < .05). Nonsignificant trends in the expected direction were found between most variables and the Decision-Making Dominance subscale.

Of particular interest to HIV/STD prevention research is the association between relationship power and safer sex practices. The Sexual Relationship Power Scale is significantly related to consistent condom use (p < .01), and this relationship is also found for each of the subscales,

	Consistent Co	Consistent Condom Use <sup><i>a</i></sup> (%)	Physical A buse	Forced	Relationship Dissatisfaction	Education <sup>b</sup>
	SRPS	SRPS-M	(%)	(%)		(%)
Sexual Relationship Power Scale						
High $(N = 123)^{T}$	$13^{**}$	$12^{**}$	7**	$1^{***}$	$10^{**}$	74***
Medium $(N = 125)$	8	8	9	2	6	69
Low $(N = 129)$	2	2	17	12	21	45
Relationship Control Subscale						
High $(N = 120)$	$10^{\sim}$	$11^{*}$	7*	$1^{**}$	$12^{**}$	$80^{***}$
Medium $(N = 128)$	9	7	9	2	5	63
Low $(N = 129)$	4	4	17	12	22	46
Decision-Making Dominance Subscale						
High $(N = 101)$	$13^{*}$	$14^{*}$	10	9	12	6
Medium $(N = 145)$	9	9	9	2	11	67
Low $(N = 131)$	5	5	15	8	17	56

"Results are presented for the full Sexual Relationship Power Scale (SRPS) and the modified (i.e., without condom-related items) Sexual Relationship Power Scale (SRPS-M).

<sup>b</sup>Education category compares high school graduates and non-high school graduates.  $^{-}p < 0.10, *_p < 0.05, **_p < 0.01; ***_p < 0.001; all p values are based on Mantel-Haenszel chi-square test for trend.$ 

Relationship Control (p < .06) and Decision-Making Dominance (p < .05). Women with a high level of relationship power are most likely to report consistent condom use, followed by women with a medium level of power, and then by women with a low level of power.

# Validity and Reliability of Modified Scale Without Condom-Related Items (SRPS-M)

The 23-item Sexual Relationship Power Scale contains four items related to condom use (e.g., "If I asked my partner to use a condom, he would get angry"). To ensure that the SRPS's association with consistent condom use was not due solely to these four particular items, they were removed to create a modified Sexual Relationship Power Scale (SRPS-M) and the association was reanalyzed (see Table IV for a comparison between the full and modified scales). Even without the items specifically addressing condom use, a significant relationship was found between the SRPS-M and the outcome of consistent condom use (p < .05). Women with a high level of relationship power were most likely to report consistent condom use, while women with a medium level of power were less likely, and women with a low level of relationship power were least likely. The modified scale also maintains a good internal consistency reliability (alpha = .85), as does the modified Relationship Control subscale (alpha = .84) and Decision-Making Dominance subscale (alpha = .60). In sum, these results indicate that the full Sexual Relationship Power Scale and the SRPS-M (i.e., without condom-related items) have similar psychometric properties and similar associations with condom use

# Validity and Reliability of Spanish- and English-language Versions

The validity and reliability of the Spanish- and English-language versions of the Sexual Relationship Power Scale were also explored separately. Input from Spanish and English speakers in the pilot study indicates that both versions of the SRPS have substantial face and construct validity. Psychometric tests conducted with the clinic sample support this contention as well.

Both Spanish- and English-language versions of the scale have similar internal consistency reliabilities. The overall reliability of the English-language version is .84, while that of the Relationship Control and Decision-Making Dominance subscales are .85 and .63, respectively. [The same analysis conducted for the modified English-language version (SRPS-M) resulted in an overall internal consistency reliability of .86, and of .85 and .57 for

the modified subscales.] For the Spanish-language version, the reliability is .88 overall, and .89 and .60 for the subscales. [The overall reliability for the modified Spanish-language version (SRPS-M) is .82, .81 for the modified Relationship Control subscale, and .62 for the modified Decision-Making Dominance subscale.]

Logistic and linear regression models were calculated to determine whether the Spanish- and English-language versions of the scale differed in their ability to predict a relationship history of partner violence and forced sex or consistent condom use. Potential differences were tested via an interaction term between the Sexual Relationship Power Scale and the chosen language of administration. Controlling for education, age, and current work status, the interaction term for relationship power and scale language was not significant for any of the regression models, nor was the main effects variable of scale language (at p < .05). When predicting education level, controlling for age and current work status, neither the interaction term nor the main effect for scale language was significant. In these analyses, the Sexual Relationship Power Scale remained significantly related to all four variables (p < .05): physical violence, forced sex, education, and consistent condom use. The multivariate regression analyses conducted with both the Spanish- and English-language versions of the scale thus indicate that they are similarly valid.

#### **CONCLUSION AND IMPLICATIONS**

The Sexual Relationship Power Scale (SRPS) possesses good internal consistency reliability and demonstrates both predictive and construct validity. The 23-item scale is comprised of two subscales that measure issues related to Relationship Control and Decision-Making Dominance within the relationship. The subscales are sufficiently reliable to use independently or in conjunction with one another. The SRPS was derived from theoretical perspectives that explicitly address interpersonal power and incorporate a gender-oriented perspective. This multi-item scale includes specific elements of relationship power that are lacking in more global measures. Items were designed to incorporate events common to both dating and married couples. In addition, two equivalent versions of the Relationship Power Scale were developed, one in English and one in Spanish. This addresses a great need in the Latino community for measures validated for this population.

The SRPS was designed and tested with groups not commonly included in such studies—Latina and African American women—in addition to White women. Studies with minority populations are of particular interest, as statistics indicate that these groups are at highest risk of HIV infection, plus other sexually transmitted diseases (CDC, 1998b). Latinas, for example, constitute 10% of the US population, yet 21% of women with AIDS. Latinas are also more likely to contract HIV via heterosexual sex than any other group except Asian American women. Relationship power issues may be more salient for Latinas as well because of the combined impact of both gender- and ethnically based power differentials (Worth, 1989).

The significant associations found between the Sexual Relationship Power Scale and physical violence, forced sex, education, relationship satisfaction, and consistent condom use support the contention that the scale is valid. Other implications of these analyses are of note. Low scores on the SRPS are associated with a reported experience of partner violence and forced sex, which suggests that the SRPS might help assess clinically relevant dimensions of relationship functioning. Specifically, a lack of relationship power may preclude the ability to avoid physical or sexual violence. In addition, the association between the SRPS and consistent condom use indicates that relationship power is an important aspect of safer sex decisionmaking, and that relationship power should be addressed when designing and implementing effective HIV/STD prevention programs.

The SRPS was developed to assess power in intimate relationships. Because sex is an important aspect of intimate relationships, many items related to sexual power were included in the scale. Four of these items specifically address safer sex negotiation (e.g., "If I asked my partner to use a condom, he would get angry"). In this sample, a modified Sexual Relationship Power Scale without the condom-related items was found to have psychometric properties similar to the full scale and to be a good predictor of consistent condom use. Both the full and modified scales are similarly useful. It is recommended, however, that the modified scale (without the condom items) should be used when relating the SRPS to condom use. When predicting other outcomes, such as partner violence, or when the variable of interest is relationship power itself, the full scale can be used without modification.

Certain limitations of this study should be highlighted. First, the Sexual Relationship Power Scale was validated among a group that largely consisted of Latina women, which may limit its generalizability. Further validation studies with women of different ethnic backgrounds would add important information. Second, the associations found between the SRPS and some of the variables used to determine construct validity could be affected by self-presentation bias, as they were taken from the same self-report instrument. It would be useful to confirm these associations via more objective measures (e.g., biological markers). Third, the SRPS may be most appropriate for young, dating couples. A deliberate effort was made to avoid items that would apply only to married or cohabiting couples, but this fact may limit its usefulness for these groups. Further research on this point is needed. Also, respondents with nonprimary or casual partners should be included in future studies, as all participants in the current project were involved in a relationship with someone they considered a main partner. Only 8% of women reported using condoms consistently, and this low rate limits the statistical power of the study to show associations with the SRPS. Finally, the SRPS could also be evaluated among samples of men. The scale was designed to address gender-based power differentials, and it is unclear how its usefulness may differ for men.

CDC guidelines state that STD/HIV risk reduction interventions that provide interpersonal skills training in safer sex negotiation are essential, and must be tailored to the needs of different racial and ethnic populations (CDC, 1998a). Results from this study suggest that such interventions should also explicitly address relationship power dynamics. How much power women have in their relationship with a primary partner may well determine how, when, and under what circumstances women seek to negotiate condom use and other safer sex behaviors.

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#### REFERENCES

- Amaro, H. (1995). Love, sex, and power: Considering women's realities in HIV prevention. American Psychologist, 50, 437–447.
- Amaro, H., & Gornemann, I. (1992). HIV/AIDS related knowledge, attitudes, beliefs, and behaviors among Hispanics: Report of findings and recommendations. Boston: Boston University School of Public Health and Northeast Hispanic Consortium.
- Blumstein, P., & Schwartz, P. (1983). American couples: Money, work, sex. New York: William Morrow.
- Campbell, C. A. (1995). Male gender roles and sexuality: Implications for women's AIDS risk and prevention. Social Science and Medicine, 41, 197–210.
- Centers for Disease Control and Prevention. (1998a). Guidelines for health education and risk reduction activities [http://aepo-xdv www.epo.cdc.gov/wonder/prevguid/p0000389/ body002.htm; last updated 12/28/98; visited 1/18/99].
- Centers for Disease Control and Prevention. (1998b). The HIV/AIDS epidemic in the United States, 1997–8 (fact sheet) [http://www.cdc.gov/nchstp/hiv\_aids/pubs/facts/hivrepfs.htm, last updated December 28, 1998, visited on February 22, 1999].
- Connell, R. (1987). Gender and power. Stanford, CA: Stanford University Press.

- Cronbach, L., & Meehl, P. (1955). Construct validity in psychological tests. Psychological Bulletin, 52, 281–302.
- De Bruyn, M. (1992). Women and AIDS in developing countries. *Social Science and Medicine*, 34, 249–262.
- DeVellis, R. (1991). Scale development: Theory and application. Newbury Park, CA: Sage.
- De Vincenzi, I. (1994). A longitudinal study of human immunodeficiency virus transmission by heterosexual partners. *New England Journal of Medicine*, 331, 341–347.
- Dixon-Mueller, R. (1993). The sexuality connection in reproductive health. *Studies in Family Planning*, 24, 269–282.
- Doak, C., Doak, L., & Root, J. (1995). *Teaching patients with low literacy skills*. New York: Lippincott.
- Ehrhardt, A., & Wasserheit, J. (1991). Age, gender, and sexual risk behaviors for sexually transmitted diseases in the United States. In J. Wasserheit, S. Aral, K. Holmes, & P. Hitchcock (Eds.), *Research issues in human behavior and sexually transmitted diseases in the AIDS era* (pp. 97–121). Washington, DC: American Society for Microbiology.
- Emerson, R. (1972). Exchange theory, Part II: Exchange relations and networks. In J. Berger,
   M. Zelditch Jr., & B. Anderson (Eds.), Sociological theories in progress (Vol. 2, pp. 58–87). Boston: Houghton Mifflin.
- Emerson, R. M. (1981). Social exchange theory. In M. Rosenberg & R. H. Turner (Eds.), Social psychology: Sociological perspectives (pp. 30–65). New York: Basic Books.
- England, P. (1997, April). *Conceptualizing women's empowerment*. Paper presented at the Female Empowerment and Demographic Processes: Moving Beyond Cairo, Lund, Sweden.
- Felmlee, D. H. (1994). Who's on top? Power in romantic relationships. Sex Roles, 31, 275-295.
- Fullilove, M., Fullilove, R., Haynes, K., & Gross, S. (1990). Black women and AIDS prevention: A view towards understanding the gender rules. *Journal of Sex Research*, 27, 46–64.
- Gage, A. J. (1997, April). *Female empowerment and adolescent demographic behavior*. Paper presented at the Female Empowerment and Demographic Processes: Moving Beyond Cairo, Lund, Sweden.
- Gómez, C., & Marín, B. (1996). Gender, culture and power: Barriers to HIV prevention strategies for women. *Journal of Sex Research, 33,* 355–362.
- Heise, L. L., & Elias, C. (1995). Transforming AIDS prevention to meet women's needs: A focus on developing countries. *Social Science and Medicine*, 40, 931–943.
- Kritz, M. M., Makinwa, P., & Gurak, D. T. (1997, April). Wife's empowerment and fertility in Nigeria: The role of context. Paper presented at the Female Empowerment and Demographic Processes: Moving Beyond Cairo, Lund, Sweden.
- Mann, J., Tarantola, D., & Netter, T. (Eds.). (1992). AIDS in the world. Cambridge, MA: Harvard University Press.
- Miller, L. C., Burns, D. M., & Rothspan, S. (1995). Negotiating safer sex: The dynamics of African-American relationships. In P. Kalbfleisch, M. J. Cody, et al. (Eds.), Gender, power, and communication in human relationships (pp. 163–188). Hillsdale, NJ: Erlbaum.
- Monahan, J. L., Miller, L. C., & Rothspan, S. (1997). Power and intimacy: On the dynamics of risky sex. *Health Communication*, 9, 303–321.
- Nunnally, J., & Bernstein, I. (1994). Psychometric theory (3rd ed.). New York: McGraw-Hill.
- Peplau, L. A. (1979). Power in dating relationships. In J. Freeman (Ed.), Women: A feminist perspective (2nd ed.). Palo Alto, CA: Mayfield.
- Rosenthal, R., & Rosnow, R. (1991). *Essentials of behavioral research: Methods and data analysis* (2nd ed.). New York: McGraw-Hill.
- Wingood, G., & DiClemente, R. (1998). Partner influences and gender-related factors associated with noncondom use among young adult African-American women. American Journal of Community Psychology, 26, 29–51.
- Wingood, G. M., Hunter-Gamble, D., & DiClemente, R. J. (1993). A pilot study of sexual communication and negotiation among young African-American women: Implications for HIV prevention. *Journal of Black Psychology*, 19, 190–203.
- Worth, D. (1989). Sexual decision-making and AIDS: Why condom promotion among vulnerable women is likely to fail. *Studies in Family Planning*, 20, 297–307.

Yoder, J. D., & Kahn, A. S. (1992). Toward a feminist understanding of women and power. Psychology of Women Quarterly, 16, 381–388.

Zierler, S., & Krieger, N. (1989). Reframing women's risk: Social inequalities and HIV infection. Annual Review of Public Health, 18, 401–436.

## APPENDIX A. ENGLISH-LANGUAGE ITEMS FOR THE SEXUAL RELATIONSHIP POWER SCALE

#### **Relationship Control Factor/Subscale**

Each of the following items was scored on a 4-point Likert scale, where 1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.

- 1. If I asked my partner to use a condom, he would get violent.\*\*
- 2. If I asked my partner to use a condom, he would ge angry.\*\*
- 3. Most of the time, we do what my partner wants to do.
- 4. My partner won't let me wear certain things.
- 5. When my partner and I are together, I'm pretty quiet.
- 6. My partner has more say than I do about important decisions that affect us.
- 7. My partner tells me who I can spend time with.
- 8. If I asked my partner to use a condom, he would think I'm having sex wih other people.\*\*
- 9. I feel trapped or stuck in our relationship.
- 10. My partner does what he wants, even if I do not want him to.
- 11. I am more committed to our relationship than my partner is.
- 12. When my partner and I disagree, he gets his way most of the time.
- 13. My partner gets more out of our relationship than I do.
- 14. My partner always wants to know where I am.
- 15. My partner might be having sex with someone else.

# **Decision-Making Dominance Factor/Subscale**

Each of the following items was scored in the following manner: 1 = Your Partner, 2 = Both of You Equally, and 3 = You.

- 16. Who usually has more say about whose friends to go out with?
- 17. Who usually has more say about whether you have sex?
- 18. Who usually has more say about what you do together?
- 19. Who usually has more say about how often you see one another?
- 20. Who usually has more say about when you talk about serious things?
- 21. In general, who do you think has more power in your relationship?

- 22. Who usually has more say about whether you use condoms?\*\*
- 23. Who usually has more say about what types of sexual acts you do?

## Items Not Retained for the Final Version

Each of the following items was scored on a 4-poin Likert scale, where 1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.

- 24. Having a partner at all times is important to me.
- -25. There are lots of good men around to have a relationship with.
- -26. I tell my partner who he can spend time with.
- -27. My partner tries to understand me—I try to understand my partner [reverse-scored for the statement about partner only].
- -28. My partner respects my point of view—I respect my partner's point of view [reverse-scored for the statement about partner only].
- -29. My partner wants to know my opinions—I want to know my partner's opinions [reverse-scored for the statement about partner only].
  - 30. No other man could love me the way my partner does.
- -31. My partner cares more about me than I do about him.
  - 32. There is nothing I wouldn't do for my partner.
  - 33. I have sex with no one else but my partner.
  - 34. My partner is physically a lot bigger than me.
- -35. I could get my partner to use a condom, even if he didn't want to use one.
- -36. My partner and I should have the same say about important decisions that affect us.

## Scoring procedures for the Sexual Relationship Power Scale

1. High scores represent high sexual relationship power. Certain items (labeled above with a -), where the high score would reflect low relationship power, are reverse-scored so that for all items a high score represents high relationship power.

2. Scores for the Relationship Control and Decision-Making Dominance subscales are calculated separately and then combined into the Sexual Relationship Power Scale.

Each of the two subscales is calculated as follows:

(a) For Relationship Control, the possible minimum was 15 and the maximum was 60. For Decision-Making Dominance, the possible minimum was 8 and the maximum was 24.

(b) For each respondent, the sum for each subscale is divided by the number of nonmissing items, creating a mean score for each subscale.

(c) For each subscale, the mean scores are rescaled to a range 1-4, thus giving both subscales the same range. This procedure was done using the following formula:

 $\frac{\text{Subscale score} - \text{Minimum of range}}{\text{Maximum of range} - \text{Minimum of range}} \times 3 + 1$ 

3. Mean scores for the subscales are combined (with equal weighting) into an overall score, using the following formula:

Relationship Control score + Decision – Making Dominance score

(a) The final score for the overall Sexual Relationship Power Scale (SRPS) is calculated by rescaling the combined score to a range of 1-4, using the following formula:

 $\frac{Overall \ scale \ score \ - \ Minimum \ of \ range}{Maximum \ of \ range \ - \ Minimum \ of \ range} \times 3 + 1$ 

(b) For analyses reported in this paper, the continuous SRPS is trichotomized into "high," "medium," and "low" levels of power by splitting the scale into three equal parts. The range for the low level of power is 1-2.430, the range for the medium level of power is 2.431-2.820, and the range for the high level of power is 2.821-4.

(c) The SRPS-M is a modified version of the scale that eliminates items related to condom use (each labeled above by the symbol \*\*). The scoring procedure is the same. This modified scale can be used if predicting condom use.

(d) Respondents for whom more than one third of the scale items are not answered should be dropped from the analysis. For respondents missing less than one third of the scale items, the missing items will automatically be assigned the mean score for each subscale's completed items if the steps described above are followed (see step 2b).

# APPENDIX B. SPANISH-LANGUAGE ITEMS FOR THE SEXUAL RELATIONSHIP POWER SCALE

# **Relationship Control Factor/Subscale**

Each of the following items was scored on a 4-point Likert scale, where 1 = Muy de acuerdo, 2 = De acuerdo, 3 = En descacurdo, and 4 = Muy en desacuerdo.

- 1. Si yo le pidiera a mi pareja que usara un condón, él se pondría violento.\*\*
- 2. Si yo le pidiera a mi pareja que usara un condón, él se pondría furioso.\*\*
- 3. La mayor parte del tiempo hacemos lo que mi pareja quiere hacer.
- 4. Si yo le pidiera a mi pareja que usara un condón, el pensaría que yo estoy teniendo sexo con otras personas.\*\*
- 5. Cuando mi pareja y yo estamos juntos, yo suelo estar más bien callada.
- 6. Mi pareja hace lo que él quiere, aun si yo no quiero que lo haga.
- 7. Me siento atrapada o encerrada en nuestra relación.
- 8. Mi pareja no me deja usar cierto tipo de ropa.
- 9. Mi pareja tiene más peso que yo en las decisions importantes que nos afectan.
- 10. Cuando mi pareja y yo estamos en desacuerdo, él casi siempre se sale con la suya.
- 11. Yo estoy más dedicada a la relación que mi pareja.
- 12. Mi pareja podría estar teniendo sexo con alguien más.
- 13. Mi pareja me dice con quién puedo pasar mi tiempo.
- 14. En general, mi pareja beneficia más o saca mas de la relación que yo.
- 15. Mi pareja siempre quiere saber dónde estoy.

# **Decision-Making Dominance Factor/Subscale**

Each of the following items was scored in the following manner: 1 = Su pareja, 2 = Ambos por igual, and 3 = Usted.

- 16. Quién tiene usualmente mayor peso acerca de con cuáles amigos salir?
- 17. Quién tiene usualmente mayor peso acerca de si tener sexo juntos?
- 18. Quién tiene usualmente mayor peso acerca de qué hacen ustedes juntos?
- 19. Quién tiene usualmente mayor peso acerca de con que frecuencia se ven?
- 20. Quién tiene usualmente mayor peso acerca de cuándo hablar de cosas serias?
- 21. En general, quién cree usted que tiene más poder en su relación?
- 22. Quién tiene usualmente mayor peso acerca de cuándo usar condones juntos?\*\*
- 23. Quién tiene usualmente mayor peso acerca de qué tipo de actos sexuales hacr juntos?

#### Items Not Retained for the Final Version

Each of the following items was scored on a 4-point Likert scalee, where 1 = Muy de acuerdo, 2 = De acuerdo, 3 = En desacuerdo, and 4 = Muy en desacuerdo.

- 24. Tener siempre una pareja es muy importante para mí
- -25. Hay muchos hombres buenos alrededor con quienes tener una relación.
- -26. Yo le digo a mi pareja con quién puede pasar su tiempo.
- -27. Mi pareja trata de comprenderme Yo trato de comprender a mi pareja. (reversed scored for the statement about partner only)
- -28. Mi pareja respeta mis puntos de vista Yo respeto los puntos de vista de mi pareja. (reversed scored for the statement about partner only)
- -29. Mi pareja quiere saber mis opiniones Yo quiero saber las opiniones de mi pareja. (reversed scored for the statement about partner only)
  - 30. Ningún otro hombre podría amarme como mi pareja me ama.
- -31. Mi pareja se preocupa por mí más de lo que yo me preocupo por él.
  - 32. No hay nada que yo no haría por mi pareja.
  - 33. Tengo sexo con mi pareja y nadie más.
  - 34. Mi pareja es físicamente mucho más grande que yo.
- -35. Yo podría lograr que mi pareja usara un condón, aun si él no quisiera usar uno.
- -36. Mi pareja y yo debemos tener igual peso en la decisions importantes que nos afectan.