

Antecedents and Consequences of Sexual Harassment in Organizations: A Test of an Integrated Model

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Sexual harassment of women in organizational settings has recently become a topic of interest to researchers and the general public alike. Although numerous studies document its frequency, the development of conceptual models identifying antecedents and consequences of harassment has proceeded at a slower pace. In this article, an empirical test of a recently proposed conceptual model is described. According to the model, organizational climate for sexual harassment and job gender context are critical antecedents of sexual harassment; harassment, in turn, influences work-related variables (e.g., job satisfaction); psychological states (e.g., anxiety and depression); and physical health. On the basis of a sample of women employed at a large, regulated utility company, the model's predictions were generally supported.

In the past several years, sexual harassment has received increasing attention from researchers and organizations alike. Once virtually unknown in the scientific literature, the topic currently yields over 500 references, the great majority published in the last 5 years; incidence and prevalence studies abound, and edited volumes and special issues of journals have begun to appear (Borgida & Fiske, 1995; O'Donohue, 1997; Pryor & McKinney, 1995; Stockdale, 1996; Tinsley & Stockdale, 1993). Considerable data have accumulated confirming that harassment is widespread in both the public (Culbertson, Rosenfeld, Booth-Kewley, & Magnusson, 1992; Martindale, 1990; U.S. Merit Systems Protection Board, 1981, 1987) and the private sector (e.g., Fitzgerald et al., 1988; Gutek, 1985; Saunders, 1992) and that it has significant consequences for employee health and psychological well-being (Fitzgerald, 1993; Schneider, Swan, & Fitzgerald, 1997). Specific job-related consequences include decreased job

satisfaction (Gruber, 1992; Morrow, McElroy, & Phillips 1994; Schneider & Swan, 1994); self-reported decrements in job performance (U.S. Merit Systems Protection Board, 1981, 1987); job loss; and career interruption (Coles, 1986; Gutek, 1985; Livingston, 1982).

Despite an abundance of data, little agreement exists concerning the causes of sexual harassment, and no coherent theory has been developed concerning factors that may exacerbate or moderate its consequences. To address this issue, we recently proposed a theoretical model of the antecedents and outcomes of sexual harassment in organizations (Fitzgerald, Hulin, & Drasgow, 1995); in the present article, we report the first empirical test of this model, based on analysis of data from a large, regulated utility.

An Integrated Model of Sexual Harassment in Organizations

Our framework is based on the proposition that sexual harassment in organizations is primarily a function of organizational and job characteristics and is most profitably conceptualized and studied at the level of group culture and organizational climate. Although individual differences in the propensity to harass most certainly play a role (e.g., Pryor, 1987), particularly in more severe and traumatic situations, the vast majority of instances that arise do not involve behavior of this sort. More akin to daily hassles than traumatic life events (Lazarus & Folkman, 1984), most such experiences appear to reflect a particularly noxious form of occupational stress that, given certain boundary conditions, may rise to the level of impermissible employment discrimination (Fitzgerald, Swan, & Magley, 1997).

According to the present framework, sexual harassment in organizations is a function of two conditions: organiza-

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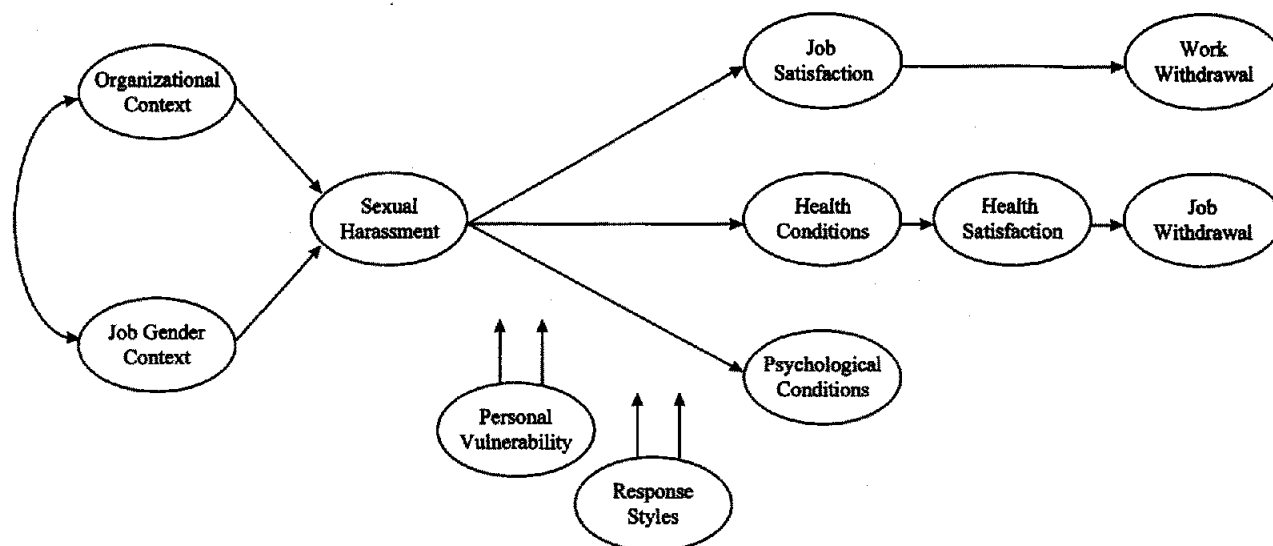


Figure 1. Integrated model of antecedents and consequences of sexual harassment.

tional climate and job gender context. *Organizational climate* (Naylor, Pritchard, & Ilgen, 1980) refers to organizational characteristics that communicate tolerance of sexual harassment, whereas *job gender context* denotes the gendered nature of the workgroup, for example, group gender ratio (Gutek, Cohen, & Konrad, 1990) and the nature of job duties and tasks (i.e., gender traditional or nontraditional). We hypothesize that these two elements largely determine the prevalence of sexual harassment found in any particular organization; in turn, harassment negatively affects job, psychological, and health-related outcomes. *Job* outcomes include factors such as job satisfaction and organizational withdrawal; *psychological* outcomes refer to stress-related reactions such as anxiety and depression; and *health-related* outcomes include reactions such as headaches, gastrointestinal disorders, and sleep disturbance. A complete description of the development of this framework appears in Fitzgerald et al., 1995; the model itself is shown in Figure 1.

In keeping with our focus on harassment as an instance of occupational stress, we propose that job outcomes reflecting stress-related cognitions and voluntary behaviors (in addition to the more frequently cited consequences of involuntary job loss and career interruption; e.g., Coles, 1986) are related to sexual harassment. These predictions are consistent with the well-documented relationship between negative job attitudes and organizational withdrawal, that is, *work withdrawal* and *job withdrawal* (Hanisch & Hulin, 1990, 1991). Work withdrawal reflects attempts to avoid work tasks (e.g., absenteeism and tardiness) while remaining within the organization itself, whereas job withdrawal is composed of factors such as turnover and retirement intentions.

Finally, we propose that the impact of harassment on any particular woman¹ is moderated by her *personal vulnerability* as well as her *response* to the harassing situation itself. In addition, although general work stressors are not included in the model proper, such stressors provide an important baseline against which the unique effects of harassment can be evaluated; thus, a measure of job stress should be included in any empirical study as a control variable.

In the following pages, we describe the first empirical test of this conceptual model. Because measures of coping with harassment and methods for examining interactions in structural models are not well developed, we exclude them for the present and focus here solely on the main relationships in the model.

Method

Participants

We collected data from women employed at a large, regulated West Coast utility, on company time, via a paper-and-pencil questionnaire. Employees selected for the sample were encouraged, but not required, by the organization's human resources department to participate in what was described as a survey of the quality of organizational life.

A stratified systematic sample was used to select women for the study (men were also selected and administered a related questionnaire; their data are not discussed in this article). To obtain a sample with a significant number of women in nontradi-

¹ We use this gender-specific terminology because research shows that the great majority of targets of serious sexual harassment are women.

tional occupations, we stratified on work site (oversampling field sites) and department (oversampling departments with job classifications that are nontraditional for women); all women within selected department-work site combinations were asked to participate in the study. Of 520 women selected for the sample, 473 came to the questionnaire administration session, and 459 women provided sufficient data to be included in some analyses (we discarded questionnaires with more than 50% missing data). After missing-data imputation (see below), 357 women provided data that could be used in analyses requiring complete data (e.g., maximum likelihood factor analysis and structural equations analysis).

Our sampling methods were successful in obtaining a relatively large proportion of female respondents employed in non-traditional jobs. Participants, who ranged in age from their early 20s to late 50s, were employed in a variety of departments in the company and located in diverse geographical areas around the state. The great majority were Caucasian (88%), had at least some college or technical training (91%), and were married or living with their partner. Participants' job classifications varied considerably, with 32% employed in the field (e.g., line crew or technician), 31% as professionals (e.g., engineering or management), and 19% as clerical workers; 18% of the sample did not identify their job classification, presumably to protect their (guaranteed) anonymity.

Measures

To facilitate review, measures are organized into four groups and presented in order of their appearance in the model. The four groups include organizational antecedents, sexual harassment, outcomes, and control and methodological variables.

Organizational antecedents. The organizational antecedents of sexual harassment were assessed via scales designed to tap the two aspects of the workplace hypothesized to contribute to higher levels of sexual harassment: organizational tolerance of sexual harassment (organizational context) and a masculinized job context (job gender context). We assessed organizational context through the Organizational Tolerance for Sexual Harassment Inventory (OTSHI; Hulin, Fitzgerald, & Drasgow, 1996). The OTSHI is operationalized according to procedures suggested by Naylor et al. (1980), who conceptualized climate as shared perceptions of contingencies between behaviors and organizational outcomes (sanctions or rewards). The OTSHI asks participants to report their perceptions of the likelihood of organizational reactions when superiors and coworkers engage in various forms of harassment. The measure consists of a series of six brief vignettes, in which characteristics of a male harasser (superior or coworker) are crossed with each of three types of sexual harassment (gender harassment, sexual coercion, or unwanted sexual attention). Each vignette is followed by three questions, asking about (a) the degree of risk to a female victim if she were to report such an incident, (b) the likelihood that her allegations would be taken seriously by the organization, and (c) the participant's perceptions of the likelihood that the harasser would receive meaningful sanctions. Each question uses a 5-point Likert-type response scale, with higher scores indicating perceptions of greater organizational tolerance of sexual harassment. The three subscales of the OTSHI (Risk of Reporting, Likelihood of Being Taken Seriously, and Probability

of Sanctions) each yielded a coefficient alpha of $>.9$, with an overall coefficient alpha of $>.96$. Table 1 contains coefficient alphas for each scale. A complete account of the development and validation of this instrument is available in Hulin et al. (1996) and Zickar, Matt, and Hulin (1997).

In the present study, job gender context was assessed by means of three indicators taken from the U.S. Merit Systems Protection Board (1981, 1987). Participants were asked to indicate whether they were one of the first of their sex to do their job and whether their immediate supervisor was male or female. In addition, they estimated the gender ratio of their workgroup on a 5-point scale, ranging from 1 (*almost all men*) to 5 (*almost all women*).

Sexual harassment. All participants completed the Sexual Experiences Questionnaire—Revised (SEQ-R). The SEQ-R is an 18-item measure developed by Fitzgerald and her colleagues (Fitzgerald, Gelfand, & Drasgow, 1995; Fitzgerald et al., 1988) to assess the three behavioral categories of sexual harassment identified in factor analytic research (Gelfand, Fitzgerald, & Drasgow, 1995): Gender Harassment, Unwanted Sexual Attention, and Sexual Coercion. *Gender Harassment*, the most commonly reported form of offensive sex-related behavior, is not intended to elicit sexual cooperation but, rather, consists of crude verbal, physical, and symbolic behaviors that convey hostile, offensive, and misogynist attitudes. *Unwanted Sexual Attention* is just that—sexual attention that is unwanted and unreciprocated by the recipient—whereas *Sexual Coercion* refers to subtle or explicit efforts to make job rewards contingent on sexual cooperation. This last represents the behavioral exemplar of the legal concept of *quid pro quo*, whereas gender harassment and unwanted sexual attention are the two constituents of a hostile working environment. Fitzgerald et al. (1997) emphasized that situations measured by the SEQ cannot be equated with legally actionable behavior in any simple fashion, because the latter depends on a number of factors that survey instruments cannot assess. Rather, the SEQ assesses offensive sex-related behavior that is unwanted, unwelcome, and unreciprocated. All items are written in behavioral terms, and the words *sexual harassment* do not appear until the end, to avoid biasing participants and to improve reliability. Participants respond on a 5-point scale, ranging from 1 (*never*) to 5 (*most of the time*). For this study, participants were asked to report only situations they had experienced in the target organization in the past 2 years.

Fitzgerald et al. (1988) reported SEQ internal consistency estimates of .92 for a student sample and .86 for an employee sample; test-retest stability analyses computed on a small subsample ($n = 46$) yielded a coefficient of .86 over a 2-week period. Gelfand et al. (1995) confirmed the three-factor structure across two settings (workplace and university students) and cultures (the United States and Brazil). Coefficient alphas in the present sample were .81 for Gender Harassment, .82 for Unwanted Sexual Attention, and .41 for Sexual Coercion. (The low reliability for the Sexual Coercion scale is due to very low frequencies of endorsement for the items on this scale.) A complete account of the theoretical and empirical development of the SEQ is available in Fitzgerald, Gelfand, and Drasgow (1995).

Psychological outcomes. We used a variety of measures to assess the psychological impact of harassment, including the Mental Health Index (MHI; Veit & Ware, 1983), Satisfaction

Table 1
Summary Statistics and Measurement Model

Construct	No. items	M	SD	α	Measurement model factor loadings		
					1	2	3
Organizational Tolerance for Sexual Harassment Inventory	18	2.25	0.86	.96	.89	.92	.94
Job gender context	3	1.29	0.56	.42	.42	.33	.88
Stress in General Scale	18	1.33	0.77	.90	.92	.91	.84
Sexual Experiences Questionnaire—Revised	18	1.22	0.31	.86	.90	.89	.85
Gender Harassment scale	5	1.49	0.64	.81			
Unwanted Sexual Attention scale	7	1.19	0.38	.82			
Sexual Coercion scale	6	1.01	0.01	.41			
Job Descriptive Index	39				.87	.94	.90
Work Satisfaction scale ^a	9	1.90	0.89	.88			
Coworker Satisfaction scale ^a	12	2.33	0.66	.86			
Supervisor Satisfaction scale	18	2.13	0.73	.91			
Extrinsic organizational commitment	5	3.02	0.76	.67			
Health Conditions Index ^a	13	2.62	0.33	.80	.66	.52	.72
Psychological conditions	51 ^b				.97	.94	.95
Satisfaction With Life Scale	5	4.63	1.38	.88			
Mental Health Index Distress scale	35	3.00	0.29	.95			
Crime-Related Post-Traumatic Stress Disorder Scale ^a	10	.61	0.58	.82			
Health Satisfaction scale	9	2.34	0.35	.77	.81	.74	.78
Work Withdrawal scale	21	1.61	0.67	.78	.86	.67	.81
Job Withdrawal scale	7	2.59	1.14	.72	.67	.60	.87

Note. Means and standard deviations are presented on the metric of each scale's response scale.

^a Indicates abbreviated scale. ^b Total includes the single-item Faces Scale.

With Life Scale (SWLS; Diener, 1984; Diener, Emmons, Larsen, & Griffin, 1985), Faces Scale (Kunin, 1955), and an abbreviated version of Saunders, Arata, and Kilpatrick's (1990) Crime-Related Post-Traumatic Stress Disorder Scale (CR-PTSD).

Psychological distress was assessed by means of MHI (Veit & Ware, 1983), a summary measure of emotional well-being and the absence of psychiatric symptoms, developed by the Rand Corporation. This 35-item scale, which is nonintrusive and psychometrically sound, has been widely used in studies of general health, as well as in other studies of victimization (Koss, Koss, & Woodruff, 1991). The MHI was constructed specifically to assess differences in mental health status in the general population. It focuses on the more prevalent symptoms of psychological distress (e.g., anxiety and depression). The MHI possesses excellent reliability in the general population (Ware, Manning, Duan, Wells, & Newhouse, 1984), as well as in groups stratified by socioeconomic status. Extensive validity data are available in Brooks et al. (1979); current coefficient alpha was .95.

An additional measure of psychological distress was based on 10 items extracted from Saunders et al.'s (1990) 28-item assessment of trauma symptoms (CR-PTSD), derived from the Symptom Checklist-90-R (Derogatis, 1983). Items were selected based on factor loadings reported by Saunders et al. Those items judged too sensitive for use in an organizational sample were replaced by the item with the next highest factor loading. The full scale has been shown to successfully discriminate rape victims in a sample of adult community women and provides a brief screening for the symptoms of posttraumatic stress disorder.

Participants respond on a 5-point scale ranging from 0 (*no discomfort*) to 4 (*extreme discomfort*). Sample items include restless or disturbed sleep, feeling hopeless about the future, and fear of open spaces. Coefficient alpha for the abbreviated scale was .82.

We assessed subjective well-being by means of the 5-item SWLS, developed by Diener and his colleagues (Diener, 1984; Diener et al., 1985). Assessing subjective well-being allowed for a global assessment of all aspects of the participant's life. Items of the SWLS are internally consistent (coefficient α = approximately .80), correlate appropriately with personality measures, and load on a single common factor (Diener, 1984). We also employed Kunin's (1955) Faces Scale, a one-item measure depicting faces displaying varying levels of happiness. This measure has the advantage of not requiring participants to translate their feelings about their general life satisfaction into words.

Health outcomes. Health outcomes were assessed through both physical symptoms and health satisfaction. We assessed physical symptoms by means of the Health Conditions Index (HCI), a yes-no symptom checklist adapted from the Cornell Medical Checklist (Brodman, Erdman, Lorge, & Wolff, 1949), one of the most widely used measures of health and physical symptoms. The items ask participants to indicate the presence or absence of specific health symptoms or diagnosed conditions. Validity data and psychometric characteristics of this scale have been reported by Smith, Kendall, and Hulin (1969) and Hanisch and Hulin (1990, 1991). For the present research, the scale was shortened to 13 items by the elimination of long-term conditions (e.g., cancer) that seemed unlikely to be connected to sexual harassment within the time frame of this study. Sample items

include severe headaches, shortness of breath on exertion, and feelings of exhaustion for no good reason. Coefficient alpha for the abbreviated version in this sample was .80.

We assessed health satisfaction by means of a subscale of the Retirement Descriptive Index (RDI; Smith et al., 1969), which contains 9 short descriptive phrases or adjectives reflecting individuals' evaluation of their own health. Hanisch and Hulin (1990) reported links between health satisfaction and health conditions, as well as between health satisfaction and both work and job withdrawal, independent of the relations between reported health conditions and withdrawal behaviors. These researchers reported a coefficient alpha of .70 and a 2-year stability coefficient of .63; coefficient alpha in the present sample was .77.

Job outcomes. Job outcomes included measures of job satisfaction and organizational withdrawal. We assessed job satisfaction by means of an abbreviated version of the Job Descriptive Index (JDI; Smith et al., 1969), as revised by Roznowski (1989). The JDI is the most frequently used measure of job attitudes and job satisfaction available. It has been subjected to rigorous psychometric evaluation, reported by Smith et al. (1969) and reviewed in Cranny, Smith, and Stone (1992). Three aspects of job satisfaction were assessed: Work Satisfaction (9 items; $\alpha = .88$), Coworker Satisfaction (12 items, $\alpha = .86$), and Supervisor Satisfaction (18 items; $\alpha = .91$). Due to concerns about the total length of the questionnaire, the Work and Coworker Satisfaction scales were shortened. Analyses of pilot data indicated that the shortened versions were reliable, with small standard errors of measurement across a wide range of scores.

The general construct of organizational withdrawal was assessed through scales measuring (a) *work withdrawal* (avoiding specific tasks associated with one's work role) and (b) *job withdrawal* (partial or complete withdrawal from one's job with a specific organization, Hanisch, 1990; Hanisch & Hulin, 1990, 1991). Hanisch (in press) has reported longitudinal data linking earlier job attitudes and reported stresses and subsequent work and job withdrawal 3 years later. The Work Withdrawal scale includes 21 items assessing such behaviors as neglecting inessential tasks, doing poor quality work, and taking long work breaks; the Job Withdrawal scale includes 7 items assessing intentions to be absent, self-reported absenteeism, intentions to quit, and thinking about quitting. For both scales, higher scores indicate higher levels of withdrawal from the organization.

Control and methodological variables. The study included three additional variables for methodological reasons: job stress, extrinsic organizational commitment, and group-level organizational climate. Job stress, assessed through the Stress in General Scale (SIG; Smith, Sademan, & McCrory, 1992), provides a baseline measure of occupational stress against which the outcomes of sexual harassment can be evaluated. It was included in our structural equations modeling analysis so that effects due to ordinary job stress were not mistakenly attributed to sexual harassment. The SIG is an 18-item global measure of job stress, which uses the "yes," "no," or "?" format of the JDI; Smith (1992) reported good evidence of convergent and discriminant validity. Coefficient alpha in the present sample was .90.

We also assessed extrinsic organizational commitment to provide a measure of divergent validity. *Extrinsic commitment* refers to a form of commitment driven by external motivators such as

pay; there is no reason to believe that one's financial needs change as a function of one's level of sexual harassment. Thus, this scale was included because it should not be related to sexual harassment and provided a methodological check on the possibility that correlations between our variables might simply reflect a response consistency bias. We supplemented one item from O'Reilly and Chatman's (1986) measure of compliance-based organizational commitment with four items developed for this study: Sample items included "I only do work I am paid for" and "My paycheck is the main reason I come to work." Coefficient alpha for this five-item scale was .67.

Finally, a measure of organizational climate toward sexual harassment was constructed that would not suffer from single-subject response bias. Specifically, if workgroup j includes N_j women, the OTSHI can provide an estimate based on the averaged scores of each participant's $N - 1$ coworkers, *excluding her own score*. It is then possible to compute a correlation between, say, the workgroup sexual harassment climate score and the SEQ sexual harassment score, where the two variables are based on responses of different people: That is, the climate score reflects solely the responses of an employee's $N_j - 1$ coworkers, whereas the SEQ score is based on that employee's own scores. Of course, the climate score can be iteratively computed for each of the N_j individuals within a workgroup, using the other $N_j - 1$ coworkers.

To compute this uncontaminated estimate of climate toward sexual harassment, we must be able to (a) identify accurately each respondents' coworkers and (b) have workgroups of adequate size. Because a single extreme score can distort group-level estimates calculated on small workgroups, a minimum number is required to ensure reasonable accuracy (we used 8): This implies, however, eliminating all groups smaller than this minimum. Further, individuals who do not provide the necessary data (i.e., job title and work location) must also be eliminated. Such procedures substantially reduced the available sample size; in the present case, only 114 participants met all necessary criteria. Because this number was too small for the structural equations modeling analysis, we simply computed correlations between this group variable and the other individual-level variables as a check for possible bias resulting from self-report data.

Missing-Data Imputation

As noted previously, data were discarded for all respondents who completed less than 50% of the items. For participants with modest amounts of missing data, we used a simple data-imputation method that has been found to be quite effective for factor analysis (Finkbeiner, 1979). Specifically, we substituted item means (rounded to their integer value) for missing responses if a respondent omitted 1 item on a short scale (10 items or less) and up to 2 items on longer scales (more than 10 items). No imputation was used when 2 or more items were missing on short scales or 3 or more items were missing on long scales; rather, those participants were dropped from analyses involving these scales.

Analysis

To test the model shown in Figure 1, we used structural equation modeling as implemented in the LISREL 8 computer

program (Jöreskog & Sörbom, 1993). Our analysis incorporated both a measurement model and a structural model; the former characterizes the relations of the observed indicators to their latent constructs and allows us to model measurement error, whereas the latter specifies relations among the latent variables themselves. We first examined the measurement model for each construct; rather than estimate factor loadings from item responses (which violates the standard distributional assumption of multivariate normality), we based our analysis on subscales. This approach greatly reduces the number of parameters that must be estimated while yielding measurement properties superior to those of single-item indicators. Moreover, the distribution of a subscale, as a sum of several items, tends toward the normal distribution, due to the Central Limit theorem.

Using multiple items, we created three manifest indicators per construct, balanced with respect to both content and statistical properties; that is, we attempted to construct indicators that were *parallel* in the sense of classical test theory. For example, each of the three indicators of job satisfaction was constructed to include approximately equal numbers of items assessing work, coworker, and supervisor satisfaction. Similarly, for the latent sexual harassment construct, each indicator included items drawn from the Gender Harassment, Unwanted Sexual Attention, and Sexual Coercion subscales, respectively. This strategy not only yields balanced indicators but also maximizes the extent to which the indicators of each construct share variance.

Our approach contrasts with two more conventional methods. First, path analysis uses a single indicator per construct; this analysis does not incorporate a measurement model and consequently can be applied to smaller samples. However, variables of the sort examined in this study are certainly subject to measurement error, and if a model such as path analysis were to be used, estimates of structural parameters would be artificially low. Because such parameters were our primary interest, we did not want to implement a method that would systematically underestimate them.

The second (and perhaps more common) alternative analysis uses three (or more) manifest indicators for each latent construct. For example, in such an approach, our measurement model for job satisfaction would have based one indicator solely on the Work Satisfaction scale, one on the Coworker Satisfaction scale, and one on the Supervisor Satisfaction scale; these three indicators would then be posited to identify the latent construct of job satisfaction. Although intuitively pleasing, this approach typically produces indicators that share less variance and consigns important components of the construct to the refuse heap of unique variance. As a result, constructs are not measured in their full substantive richness, leading to weaker relations with other important constructs. For the sake of completeness, however, we fit all three models (path analysis, structural equations with indicators constructed to be parallel, and structural equations with preexisting manifest indicators) to the data and report the results below.

To assess the overall measurement model, free elements of the factor pattern matrix (the nonzero entries) were estimated by the LISREL program, and fixed elements were held constant at zero. We used maximum likelihood estimation to estimate the unknown parameters. A variety of fit measures were examined, including the χ^2/df ratio; LISREL's goodness-of-fit index (GFI) and adjusted goodness-of-fit index (AGFI); the root

mean square residual (RMSR; a measure of the magnitude of the differences between the fitted and observed correlation matrices); the non-normed fit index (NNFI; a measure that provides the incremental improvement of fit of the tested model from a baseline model, excluding the influence of sample size); and the standardized residuals.

Results

The means, standard deviations, and internal consistency reliability of all major variables are presented in Table 1; Table 2 contains simple product-moment correlations between variables.

Table 3 contains goodness-of-fit statistics obtained from analyses of indicators constructed to be parallel. It can be seen that a generally satisfactory solution was obtained for the measurement model. Table 3 shows that the χ^2/df ratio was 1.77, which is reasonably good given our sample size of 357. The AGFI was .87, which is satisfactory; the NNFI was .95; and the RMSR was .04, which is excellent. In addition, the standardized residuals were generally small, with less than 5% (17 of 465) greater than an absolute value of 3.0.

The factor loadings obtained from fitting the measurement model to the parallel indicators are given in the last three columns of Table 1. All factor loadings hypothesized to be nonzero were in fact large and significant at the .001 level; all other factor loadings were fixed at zero.

The next step of the analysis was the structural modeling procedure. We fixed (at zero) and freed (i.e., estimated) elements of the **B** and **Γ** matrices, according to our hypothesized theoretical relations given in Figure 1. Maximum likelihood estimation was used to estimate parameters. To identify the model, we fixed the diagonal of the variance-covariance matrix for the exogenous constructs to unities and fixed the factor loading of one indicator for each endogenous construct to 1.

As shown in Table 3, the fit indices for the initial structural model included a χ^2/df ratio of 2.51, a GFI of .85, an AGFI of .82, a NNFI of .91, and a RMSR of .13. These statistics suggest a problematic fit; the RMSR is particularly troubling. Further, the chi-square for the initial structural model was 342.60 larger than the chi-square for the measurement model (which represents the unrestricted, best-fit model), with a difference in degrees of freedom of 31. This indicates that the restrictions imposed by the structural model substantially degraded the fit. Most of the estimated **B** and **Γ** coefficients of the model were significant at the .01 level; the two nonsignificant paths were from sexual harassment to health conditions and from job satisfaction to work withdrawal. The estimated coefficients for the completely standardized solution and their standard errors are represented in Figure 2.

A closer examination of the standardized residuals indicated that some of the relations among the latent constructs in the submodel of organizational outcomes

Table 2
Correlations Among Variables Measured

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. OTSHI	—														
2. Group O	.23*	—													
3. SEQ-R	.45**	.21*	—												
4. SUPSAT	-.27**	-.33**	-.18**	—											
5. COWSAT	-.20**	-.16	-.29**	.41**	—										
6. WKSAT	-.09	.07	-.09	.25**	.34**	—									
7. JOBWTH	.15*	.18	.11*	-.23**	-.19**	-.36**	—								
8. JOBWTH	.18**	.06	.19**	-.03	-.06	-.11*	.21**	—							
9. HELSAT	-.18**	.12	-.03	.09*	.10*	.11*	-.13**	-.32**	—						
10. HCI	-.17**	.02	-.09	.08	.14**	.05	-.08	-.30**	.56**	—					
11. SWLS	-.21**	.07	-.08	.05	.09	.22**	-.07	-.25**	.40**	.34**	—				
12. CR-PTSD	.23**	-.05	.17**	-.07	-.11*	-.05	.09	.37**	-.42**	-.56**	-.37**	—			
13. DISTRESS	.27**	-.03	.16**	-.12*	-.16**	-.16**	.18**	.40**	-.54**	-.53**	-.60**	.69**	—		
14. SIG	.07	.04	.05	-.21**	-.12*	-.01	.14*	.13*	-.20**	-.23**	-.07	.18**	.29**	—	
15. EXTCOM	.08	-.19*	.14*	-.10	-.22**	-.40**	.12*	.09	-.13*	-.08	-.10*	.11*	.11*	.01	—

Note. OTSHI = Organizational Tolerance for Sexual Harassment Inventory; Group O = workgroup OTSHI; SEQ-R = Sexual Experiences Questionnaire-Revised; SUPSAT = Job Descriptive Index (JDI) Supervisor Satisfaction Scale; COWSAT = JDI Coworker Satisfaction Scale; WKSAT = JDI Work Satisfaction Scale; JOBWTH = Job Withdrawal Scale; WKWITH = Work Withdrawal Scale; HELSAT = Retirement Descriptive Index Health Satisfaction Scale; HCI = Health Conditions Index; SWLS = Satisfaction With Life Scale + Faces Scale; CR-PTSD = Crime-Related Post-Traumatic Stress Disorder Scale; DISTRESS = Mental Health Index Scale; SIG = Stress in General Scale; EXTCOM = Extrinsic Organizational Commitment.

* $p < .05$. ** $p < .01$.

seemed to be misspecified; in fact, 89 of the 465 standardized residuals were equal to or greater than 3.0 in absolute value. Table 4 contains standardized residuals for the endogenous variables. It reveals a systematic pattern of standardized residuals between (a) job satisfaction and job withdrawal, (b) health conditions and psychological conditions, (c) health satisfaction and psychological conditions, (d) psychological conditions and work withdrawal, and (e) health satisfaction and work withdrawal. Thus, the data suggested some revision of the basic model.

First, we inserted a path from psychological conditions to health conditions, reasoning that years of health psychology research, as well as the field of psychosomatic medicine, has repeatedly demonstrated the impact of psychological distress on physical health (see, e.g., Fuller, Edwards, Sermsri, and Vorakitphokatorn, 1993). Second, we freed paths from health satisfaction to work withdrawal as well as from job satisfaction to job withdrawal. The revised structural model and estimated coefficients appear in Figure 3.

These revisions considerably improved the model's fit indices, yielding a χ^2/df ratio of 1.87, a GFI of .88, an AGFI of .86, a NNFI of .95, and RMSR of .07. The chi-square for this model is 87.71 larger than the chi-square for the measurement model, with a difference in degrees of freedom of 28; thus, the fit was not substantially poorer for the revised structural model, which suggests that the zero paths have been appropriately specified. Most noteworthy is the reduction in the RMSR as compared with the initial structural model fit to the data. In addition, the standardized residuals decreased to a more reasonable size, whereas the strength of the original paths was unaffected.

As Figure 3 illustrates, the estimate of the path from organizational context to sexual harassment was .44. Thus, perceptions that the organization tolerates sexual harassment in the workplace were positively related to experiences of sexual harassment. This is consistent with the contention that harassment occurs within a sociotechnological organizational system and, thus, cannot be separated from the organizational climate in which it occurs. Furthermore, the path from job gender context to sexual harassment was -.21, indicating that women in traditionally male-dominated job contexts were more likely to be sexually harassed.

Next, the results show that sexual harassment was directly related to job and psychological outcomes, as predicted, and indirectly related to health conditions. The path from sexual harassment to job satisfaction was -.31, indicating that greater experienced sexual harassment was related to lower job satisfaction. The path from sexual harassment to psychological conditions was .20. That is, higher levels of sexual harassment were related to higher psychological distress. Sexual harassment was not directly related to health conditions; however, there was a signifi-

Table 3
Goodness-of-Fit Indices for Measurement and Structural Models

Model	χ^2	df	χ^2/df	GFI	AGFI	NNFI	RMSR
Measurement	638.07	360	1.77	.90	.87	.95	.04
Structural-I	980.67	391	2.51	.85	.82	.91	.13
Structural-R	725.78	388	1.87	.88	.86	.95	.07

Note. GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NNFI = non-normed fit index; RMSR = root mean square residual; Structural-I = initial structural model; Structural-R = revised structural model.

cant path between psychological and health conditions. Thus, it appears that harassment had a negative impact on physical health via its relationship to psychological conditions.

One of the most crucial aspects of this model is the relation of job stress to the endogenous constructs. As noted earlier, it is important to examine the effects of sexual harassment within a framework that includes other job stressors. As Figure 3 illustrates, the estimated path coefficients from job stress to job satisfaction, health conditions, and psychological conditions were $-.24$, $-.09$, and $.25$, respectively. In comparing the effects of sexual harassment with the effects of job stress, it appears that sexual harassment had separate and independent effects on job, health, and psychological outcomes that were comparable in size to those resulting from general job stress.

The relationships between health conditions, health satisfaction, and job and work withdrawal were all in the expected directions. The path coefficient from health conditions to health satisfaction was $.86$, indicating that better physical health is related to higher satisfaction with health. The path from health satisfaction to job withdrawal was $-.16$, and the path from health satisfaction to work with-

drawal was $-.44$. This indicates that higher satisfaction with health is related to lower work and job withdrawal. Thus, the analysis clearly shows health and job satisfaction as important predictors of withdrawal behaviors and replicates research by Hanisch and Hulin (1990, 1991).

Last, the paths from job satisfaction to work withdrawal and job withdrawal were $.04$ and $-.38$, respectively. The lack of relation between job satisfaction and work withdrawal is surprising; the significant path from job satisfaction to job withdrawal is consistent with the extensive literature on job satisfaction, turnover intentions, and turnover.

The same general pattern of results were obtained when the data were analyzed by path analysis. However, the estimates of structural parameters tended to be 10%–20% smaller than those shown in Figure 3. For example, the paths from sexual harassment to job satisfaction and to psychological conditions are $-.31$ and $.20$ in Figure 3; the same paths were $-.28$ and $.17$ in the path analysis. The path from health satisfaction to work withdrawal is $-.44$ in Figure 3 but $-.34$ in the path analysis. Nonetheless, the general conclusions that could be drawn from the path analysis are very similar to the results described above.

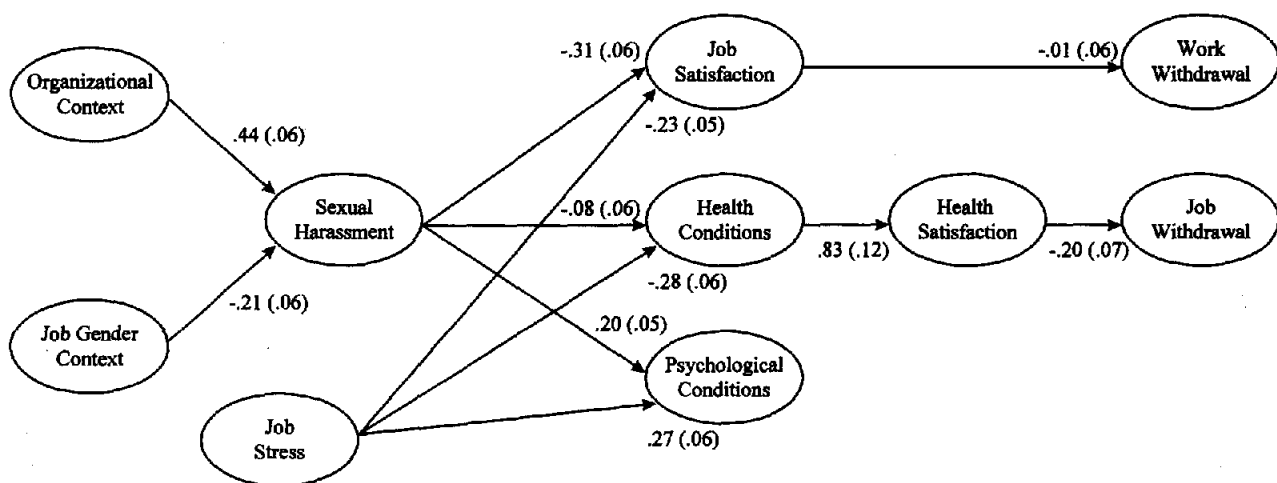


Figure 2. LISREL estimates of structural model coefficients and their standard errors (in parentheses) for the initial model of sexual harassment.

Table 4
Standardized Residual Matrix for Endogenous Variables From Initial Structural Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. JobSat1	0.20																	
2. JobSat2	1.04	1.89																
3. JobSat3	-0.49	0.87	0.33															
4. HICon1	-0.09	0.56	0.09	0.02														
5. HICon2	-1.81	-0.04	-0.35	6.39	0.01													
6. HICon3	0.41	0.54	0.81	-3.00	-2.98	0.02												
7. Psych1	-1.25	-0.69	-0.51	-8.55	-4.73	-9.95												
8. Psych2	-2.30	-1.21	-1.21	-8.46	-4.57	-9.77	0.70											
9. Psych3	-1.38	-0.60	-0.56	-7.93	-4.77	-8.79	0.67	0.35										
10. HelSat1	1.50	1.49	1.92	-1.45	-1.79	1.88	-8.19	-8.00	0.43									
11. HelSat2	0.05	0.22	0.26	-2.82	-0.55	2.10	-6.47	-6.53	-5.93	0.04								
12. HelSat3	1.72	0.29	0.54	0.51	-2.16	3.77	-9.36	-9.37	-8.62	-0.86	0.02							
13. Jw1h1	-3.04	-3.31	-3.58	1.44	1.25	1.40	0.45	2.12	0.75	1.01	0.15	0.02						
14. Jw1h2	-5.54	-5.67	-5.49	-0.16	0.09	-0.20	4.43	4.78	4.54	-1.05	-0.65	-1.00	0.00					
15. Jw1h3	-5.74	-6.01	-5.66	1.69	0.50	1.09	2.99	3.96	2.61	0.63	-1.16	-0.44	1.14	0.00				
16. Ww1h1	-0.30	1.34	0.02	-3.36	-2.81	-3.93	5.99	6.19	6.15	-5.63	-4.26	-4.80	2.30	1.96	0.00			
17. Ww1h2	-2.60	-1.68	-2.20	-3.37	-2.10	-4.71	7.52	7.00	6.70	-4.75	-3.99	-4.51	2.98	4.41	3.51	0.00		
18. Ww1h3	-0.03	1.81	1.23	-4.15	-3.21	-4.37	6.12	6.72	5.99	-5.50	-4.29	-5.15	2.03	2.26	1.76	0.00	-0.40	0.00

Note. JobSat1, JobSat2, and JobSat3 are the three indicators for the latent construct job satisfaction. Each of the subsequent set of three variables are the three indicators for the latent constructs health conditions, psychological conditions, health satisfaction, job withdrawal, and work withdrawal, respectively. Standardized residuals, which appear to be nonrandom, are displayed in boldface.

Finally, the data were analyzed by structural equations modeling with preexisting manifest indicators. Specifically, rather than forming parallel indicators for sexual harassment, job satisfaction, and psychological conditions, we used the Gender Harassment, Unwanted Sexual Attention, and Sexual Coercion scales from the SEQ-R, the Work Satisfaction, Coworker Satisfaction, and Supervisor Satisfaction scales from the JDI, and the MHI, CR-PTSD, and the SWLS scales for indicators of psychological conditions. The results of this analysis were virtually identical to the analysis based on parallel indicators.

Discussion

What do these data reveal concerning the organizational conditions that give rise to sexual harassment and the consequences for those who experience it? With respect to precipitating factors, our analysis confirms the importance of organizational conditions as potent facilitators of this phenomenon. The estimated path from organizational context to sexual harassment was .44, indicating that women employees who believe their organization is tolerant of sexual harassment—that is, complaints are not taken seriously, it is risky to complain, and perpetrators are unlikely to be punished—experience considerably higher levels of harassment. It is, of course, possible to argue that this relationship is spurious and that women employees who are overly sensitive to this issue may simply be more likely both to endorse SEQ items and to rate their organization as tolerant of sexual harassment. We address this “whiner” argument in some detail below; for now, we merely note that there is little indication in the present data that this is the case.

As predicted, a male-dominated workplace was significantly implicated in high levels of sexual harassment. Although sex-role spillover theory (Gutek, 1985; Jensen & Gutek, 1982) would suggest that women in both male- and female-dominated workplaces would be at increased risk, compared with those in more gender-balanced contexts, our data suggest that it is not skewed gender ratio *per se*, but rather the presence of large numbers of male workers, combined with traditionally male-oriented tasks, that appears to be the operative factor.

With respect to outcomes, our results support the contention that sexual harassment is costly in both organizational and human terms. Women who were harassed not only experienced more psychological problems but also reported higher levels of absenteeism, stronger turnover intentions, and spent more time thinking about leaving their jobs than women who had not been harassed. Although previous work has suggested that harassment carries heavy organizational costs (e.g., Martindale, 1990; Morrow et al., 1994; U.S. Merit Systems Protection Board, 1981, 1987), such work has been flawed by procedures that ask respondents to estimate how much they

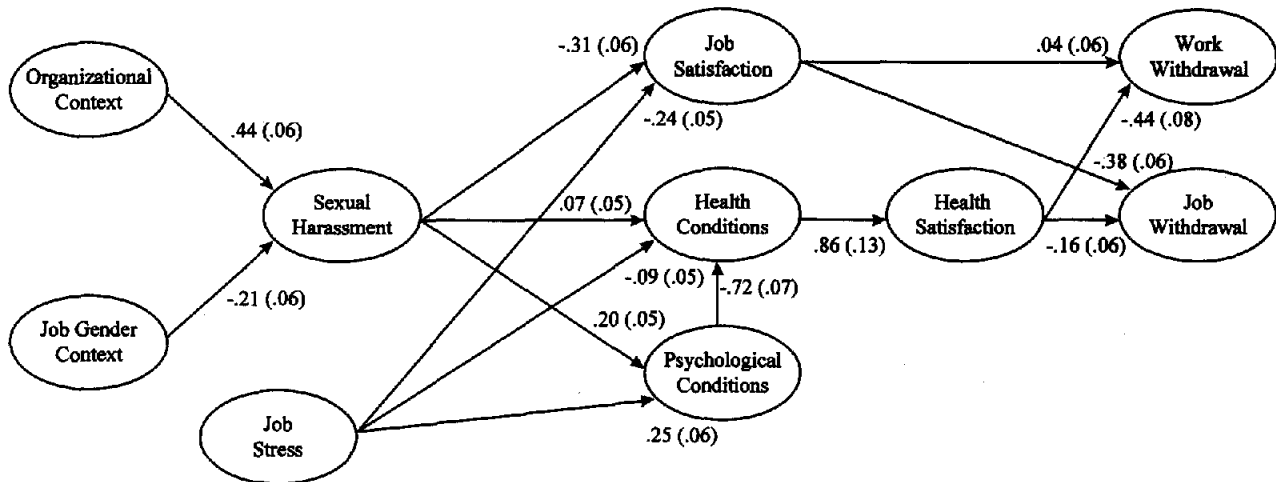


Figure 3. LISREL estimates of structural model coefficients and their standard errors (in parentheses) for the revised structural model.

have been damaged as a result of the harassment they experienced; the confounds in this method are obvious. To our knowledge, this is the only investigation that has unconfounded these two variables by collecting the outcome variables before asking respondents about their sexual harassment experiences.

One of the more interesting findings of the analysis concerns the relative contribution of job stress to employee outcomes. As noted earlier, it is important to examine the effects of sexual harassment within a framework that includes other job stressors. Comparing the effects of such stressors with those of sexual harassment revealed that the latter exerts considerable negative impact on employees over and above that attributable to quotidian job stressors.

Limitations

Although we believe that these findings represent an important step in our theoretical understanding of the processes by which harassment is initiated and its effects sustained, our conclusions include two caveats. First, our results are based on a single organizational sample, thus raising issues of sample specificity and capitalization on chance sampling fluctuation. Second, the data on which our analysis is based are confined to self-report, suggesting the possibility that results may be due to method variance or, possibly, a generalized tendency to respond negatively. Although definitive conclusions must await cross-validation, we suggest that these concerns are unlikely to compromise our findings in any serious way. With respect to the first, the theory-based nature of the hypothesized model and its fit to the empirical data provide considerable confidence that the present findings are not due to chance. The second concern, that the results

are an artificial result of method variance or a generalized tendency to respond negatively, receives only modest support from the correlations reported in Table 2. For example, although correlated negatively with both Coworker and Supervisor Satisfaction, SEQ-R scores are independent of Work Satisfaction itself.

Powerful evidence against both the whiner and the method-variance hypothesis is drawn from the relationship of sexual harassment and other variables to the workgroup estimate of organizational climate; as can be seen in Table 2, female employees whose coworkers believe that their organization is tolerant of sexual harassment—are significantly more likely to be sexually harassed. These estimates, computed after removing the focal person's score, are uncontaminated by method variance. The unbiased workgroup-based measure of organizational tolerance of sexual harassment is also significantly correlated with a woman's satisfaction with supervision.

Our second methodological variable, extrinsic organizational commitment, provided somewhat mixed results with respect to the method-variance issue. Not surprisingly, it was significantly and nontrivially negatively related to Work Satisfaction, indicating that women who said tangible rewards were an important motivator for their work behavior also reported that they were less satisfied with the work. Extrinsic commitment was also significantly, but modestly, related to our measure of sexual harassment. We predicted no relationship, and the observed correlation (.14) is reasonably consistent with the prediction. However, the sample size of 438 led this observed correlation to be statistically significant.

In summary, the combination of significant relations for the workgroup measure of organizational tolerance of sexual harassment and a smaller, albeit significant, corre-

lation between extrinsic organizational commitment and reported sexual harassment argues against the method-variance or whiner hypothesis. To further examine this hypothesis, we are currently engaged in a longitudinal study in which women will be surveyed twice, with the follow-up survey administered 2 years after the initial survey. We expect that women who reported little or no harassment at Time 1, but substantial harassment at Time 2, will have decreased satisfaction with supervision and coworkers, work psychological conditions, and decrements in their health.

In addition to the longitudinal study, future research may benefit from recognizing that different types of harassment may well be differentially determined. For example, *hostile environment* harassment (i.e., gender harassment and unwanted sexual attention) may be more heavily influenced by the effects of organizational elements such as those proposed in this article, whereas *quid pro quo* harassment may be more heavily influenced by individual deviance factors. Unfortunately, the issue of excluding sexual coercion from the analyses is somewhat moot, given the low base rates of these behaviors. Furthermore, as Schneider et al. (1997) pointed out, sexual coercion does not occur in isolation; rather, it typically co-occurs with several other types of harassment. Thus, a difficult task of future research may be that of teasing out these differential antecedents.

Conclusion

McDonald and Lees-Haley (1995) recently provided a strong critique of the literature on sexual harassment, characterizing it as "junk science" and suggesting that it

consists mostly of anecdotal accounts or expository essays that mix personal opinion, legal issues, and a political or ideological agenda. . . . (W)hen empirical results are reported they are mostly summaries or interpretations of subjective reports rather than scientifically derived objective measurements of psychological function and behavior associated with sexual harassment. (p. 54)

Although their critique is overstated, it is admittedly the case that scientifically defensible linkages between harassing behaviors, their antecedents, and outcomes have been more hypothesized than demonstrated. This article begins to reverse that balance.

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