

Prediction and replication of the organizational and personal consequences of workplace sexual harassment

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Public attention has recently been drawn to the issue of workplace sexual harassment through well-publicized events such as the unanimous US Supreme Court judgment in *Harris vs Forklift Systems Inc.*, the "tailhook" fiasco, the Clarence Thomas hearings and the resignation of US Senator Packwood. There is now considerable agreement that sexual harassment is both widespread and extensive. What we do not yet know are the personal and organizational correlates and consequences of sexual harassment, and it is to this issue that we turn our attention in this research.

The psychological nature of sexual harassment

Central to this research is the notion that workplace sexual harassment can be viewed within the framework of organizational stress; this allows us to understand both its nature and its probable consequences[1]. First, merely defining an event in terms of an event or events (i.e. as a stressor) would not

fully capture the psychological meaning of harassment to the victim. What this emphasizes explicitly is the subjective rather than the objective nature of sexual harassment. This can be seen to some extent in the Equal Employment Opportunity Commission (1980) definition of sexual harassment, which is described as “unwelcome sexual advances ...” Of course, different people would find the same behaviours differentially unacceptable.

We argue that to capture the full meaning of sexual harassment, two contextual factors surrounding the objective event need to be incorporated. First, as the event occurs with increasing frequency, it is more likely to be viewed as unwelcome and harassing. In addition, as sexual harassment increases in frequency, victims are likely to believe that the events will recur. In this sense, the stress and uncertainty surrounding sexual harassment are likely to persist, and when victims believe that recurrences are likely, any negative effects will endure[2,3]. Second, the perception of, or response to, the event must be considered. Where the response to a particular workplace event (e.g. being the target of touching, being asked sexual questions, witnessing sexual gestures) is negative, the individual will probably perceive the event as sexually harassing. In some cases, however, being the target of touching would not be experienced negatively and no negative effects would ensue.

Thus any psychological understanding of sexual harassment must take account of both the frequency of its occurrence and the psychological reaction to the event or events. In this study, these two facets are viewed together in developing a model of the effects of sexual harassment on personal and organizational outcomes. In doing this, we argue that sexual harassment is a major organizational stressor[1].

One of the primary characteristics of organizational stressors is that they affect negative mood, and there is substantial evidence to support this. For example, work stress affects negative mood whether the job stress is experienced daily[4-7] or on a chronic basis[8-10]. Similarly, the effects of stress on negative mood extend beyond the workplace to the experience of homemakers[11], retirees[12], employees balancing the simultaneous needs of caring for the elderly and work demands[13] and unemployed individuals[14]. This general effect is replicated in diverse settings (e.g. [15-17]). Because survey data also suggest that experiencing sexual harassment results in negative mood[18,19], the robust nature of this phenomenon is indicated. Thus, our first prediction is that experiencing sexual harassment will result in negative mood in the workplace.

What is less clear from the literature is just how workplace sexual harassment might influence personal wellbeing and aspects of employee functioning. We suggest that most of the negative effects of workplace sexual harassment will be transmitted through its direct effects on negative mood. In this respect, we hypothesize that work-related negative mood will mediate the effects of sexual harassment on three variables. First, as Gutek[18] suggests, being the victim of workplace sexual harassment is likely to influence job dissatisfaction. In this respect, we expect that two aspects of interpersonal job dissatisfaction

will be affected, namely co-worker and supervisor dissatisfaction, because most sexual harassment incidents are perpetrated by either co-workers or by people in supervisory positions. Certainly, negative mood is associated with job dissatisfaction (e.g. [20]).

In appropriate circumstances, individuals can choose to withdraw from the organization as a means of coping with, or escaping from, major stressors[21]. As individuals grapple with an unfair environment, one option available is some form of behavioural withdrawal from the aversive environment. Extending this argument, employees who experience sexual harassment, especially if it is repeated frequently and experienced negatively, are more likely to want to leave the organization[18]. Several factors sustain the hypothesized indirect link between sexual harassment and organizational withdrawal. First, employees suffering from work-related negative mood may be less likely to view themselves as capable of changing the hostile environment. Under such conditions, withdrawal may seem more attractive. Second, in a one-year prospective study, learned helplessness predicted quitting the organization in the first year after being hired[22]. Accordingly, we hypothesize that experiencing sexual harassment will exert a direct effect on work-related negative mood, which in turn will predict turnover intentions. We also suggest that sexual harassment could exert direct effects on employees' intentions to leave the organization, especially under conditions of severe harassment. Accordingly, we propose that the link between sexual harassment and turnover intentions is partially mediated by work-related negative mood, i.e. there will be both direct and indirect effects of sexual harassment on turnover intentions.

Numerous surveys suggest that being the victim of sexual harassment is associated with psychosomatic symptoms, such as headaches, problems with sleeping and gastric problems[18,23-25]. Most of these data, however, are based on a correlation between dichotomous reports of sexual harassment and the frequency of psychosomatic complaints. We suggest that any effect of sexual harassment on psychosomatic health is transmitted primarily through the effects of negative mood because of consistent associations between negative mood and psychosomatic problems in the literature (e.g. [20,26,27]).

If this model (see Figure 1) receives empirical support, the negative consequences of workplace sexual harassment will be considerable, because all three outcomes are of some importance to the optimum functioning of the employee within the organization. Employees' job or interpersonal dissatisfaction and turnover intentions are of direct relevance to organizational performance. Likewise, psychosomatic health problems are negatively associated with work performance[28].

Gender differences in the experience of workplace sexual harassment

We suggest that the psychological experience of sexual harassment differs markedly for men and women, as would the correlates or consequences of any such harassment. There are at least two reasons for this suggestion. First,

survey data indicate that there are distinct differences in the extent to which men and women report being sexually harassed in the workplace. While estimates of sexual harassment differ across studies, women invariably report higher levels of sexual harassment than do men[18,25,29]. Second, women probably feel more threatened than men by inappropriate behaviours perpetrated by opposite sex supervisors, co-workers or subordinates in the workplace. This is exacerbated because the job-related consequences of reporting an incident of sexual harassment can be severe (e.g. demoralization, being the subject of ridicule, being ostracized and perhaps being vulnerable to more attacks), and their power to influence such behaviour may be limited.

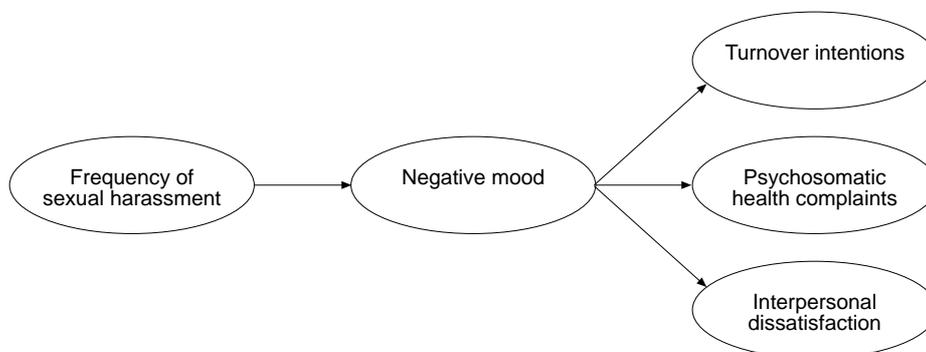


Figure 1.
Proposed model of the
consequences of sexual
harassment

As a result, we suggest that the model of sexual harassment we propose will accurately reflect women's experience of sexual harassment. In contrast, men do not experience sexual harassment in the same way. To test this, we will explicitly contrast the model separately for females and for males.

The problem of self-reports of sexual harassment

In setting out to study sexual harassment, problems associated with the way in which data are obtained immediately become apparent. There are several ways in which data on sexual harassment can be obtained, for example, through self-reports, grievances lodged or organizational reports. One way to avoid the use of self-reports would be to access organizational records. The major problem with this method, however, is that at this stage, so few experiences of sexual harassment translate into formal organizational reports that the validity of such information would be questionable (i.e. the number of false negatives would be overestimated). A second method is to ask respondents directly whether they have been sexually harassed. In considering these options, it became apparent that these methods rely too closely on respondents' own implicit definitions of what legally constitutes sexual harassment. Instead, we

are primarily interested in the psychological experiences associated with enduring sexual harassment.

However, this approach entails use of self-reports of sexual harassment, which would result in plausible rival explanations because mono-method bias might be operating. We assessed this possibility empirically. Following Podsakoff and Organ[30], we will compute an exploratory factor analysis on all the variables contained in the proposed model to assess whether there is substantial common method variance present.

The current study

The purpose of this study is twofold. First, we develop and assess the model presented in Figure 1. Second, to evaluate the stability of the model across gender, we empirically contrast the results obtained from a sample of Canadian women with results obtained from Canadian men employed in the same organizations. We expect that the structural parameters of the model (i.e. the paths between latent variables) will differ across gender. However, any such differences could be attributable to the instability of the model rather than to gender differences in the experience of workplace sexual harassment. Accordingly, we replicate the model on a sample of unionized US females, and expect that the model parameters obtained from this sample of Canadian females will remain invariant when tested on this replication sample.

Study 1

Method

Subjects and procedures. Descriptive statistics for males and females in the five separate samples appear in Table I.

Samples 1 and 2 were drawn from separate hotels in a large hotel chain in Canada. In the first hotel, the manager of each department distributed questionnaires directly to employees and the questionnaires were returned to researchers in sealed envelopes. Employees in the second hotel were approached by one of the researchers during their breaks and returned completed questionnaires in sealed envelopes to the researcher or deposited them in boxes situated in publicly accessible places. Both hotels had approximately 150 non-management employees and about 45 surveys were returned in each hotel.

The third sample consisted of 225 employees of a major office equipment and computer manufacturer and distributor in Canada. This organization distributed the questionnaires through internal mail to all females and a random sample of 50 per cent of the males ($n = 1,550$). Of the questionnaires distributed, 225 were returned to the researchers in reply-paid, self-addressed envelopes.

The fourth sample consisted of members of a provincial nurses' association. The association agreed to distribute the questionnaire in the package handed out to all participants at the annual convention, and they were again returned to us in reply-paid, self-addressed envelopes. The nature of the study was

		1	2	Sample 3	4 ^a	5	Workplace sexual harassment	
<i>n</i> (total)		45	45	225	122	154		9
Number of males		24	18	145	5			
Number of females		21	27	80	117	154		
Females (per cent)		46	60	36	97	100		
<i>Females</i>								
Age (years)	M	29.05	30.00	40.01	46.30	41.91		
	SD	6.87	7.74	11.35	10.51	8.89		
Education (years)	M	13.29	13.04	13.09	14.87	14.38		
	SD	1.21	1.09	1.97	0.86	2.47		
Tenure (years)	M	5.30	4.19	9.43	11.43	13.10		
	SD	4.93	3.22	7.12	6.40	8.06		
<i>Males</i>								
Age (years)	M	28.71	32.35	38.85				
	SD	5.58	9.74	9.88				
Education (years)	M	13.74	13.00	14.34				
	SD	1.66	1.10	1.94				
Tenure (years)	M	3.50	4.22	9.43				
	SD	2.61	0.80	8.06				

Table I.
Descriptive statistics for
the males and females
in the five samples

Note: ^aNo data reported for the five males in this sample

announced in the opening and closing remarks of the convention; however, this method did not allow control over the number of questionnaires distributed. We estimate that 800 questionnaires were distributed, of which 122 were returned.

The replication sample was drawn from the membership of the Kansas Association of Public Employees, which represents workers from a wide variety of occupations and organizations. Five hundred female members selected at random from a membership roster were mailed the survey, together with a self-addressed, reply-paid envelope. Each survey was accompanied by a covering letter explaining that we were assessing interactions between women and men in the workplace. Of the surveys returned, 154 were usable. Most of the respondents were skilled or semi-skilled workers. Because the association did not maintain detailed demographic records, we could not ascertain how representative our sample was. In all five samples, respondents' anonymity and confidentiality were assured.

Measures. Descriptive statistics, interrelations and internal consistencies (where relevant) for all study variables for females in the main and replication studies are contained in Tables II and III respectively. Corresponding data for males appear in Table IV.

Table II.
Descriptive statistics,
reliabilities and inter-
correlations for females
in the main sample
(*n* = 202)

	M	SD	α	1	2	3	4	5	6	7	8	9	10
Turnover intentions	2.96	1.89	67										
Headaches	2.27	1.02	88	23**									
Gastric problems	1.76	0.75	75	34**	46**								
Sleep problems	2.43	0.74	81	18*	28**	37**							
Respiratory problems	1.87	0.61	81	22**	38**	60**	27**						
Supervisor dissatisfaction	1.86	0.82	91	28**	10	23**	10	19**					
Co-worker dissatisfaction	2.12	0.67	89	23**	18*	22**	08	24**	48**				
Depression	2.10	0.91	86	47**	36**	44**	24**	36**	53**	39**			
Anxiety	2.56	0.81	82	38*	26**	48**	25**	37**	59**	42**	80**		
Positive mood	2.79	0.87	89	-28**	-22*	-28**	-15*	-21**	-43**	-30**	-53**	-58**	
Frequency of sexual harassment	0.50	0.53	-	32**	23**	43**	23**	32**	23**	29**	42**	39**	-19*

Notes: Decimal points omitted from correlation matrix and reliability coefficients

**p* = 0.05

***p* = 0.01

	M	SD	α	1	2	3	4	5	6	7	8	9	10
Turnover intentions	2.69	1.70	62										
Headaches	2.23	0.88	86	21*									
Gastric problems	1.78	0.69	84	25**	44**								
Sleep problems	2.28	0.70	82	19*	34**	23**							
Respiratory problems	1.90	0.74	76	26**	30**	33**	21*						
Supervisor dissatisfaction	2.21	0.77	88	48**	20*	28**	08	21**					
Co-worker dissatisfaction	2.16	0.78	83	34**	16*	19*	10	21*	43**				
Depression	2.05	0.88	86	45**	41**	36**	29**	23**	44**	26**			
Anxiety	2.50	0.77	90	38**	35**	32**	26**	28**	50**	34**	79**		
Positive mood	2.89	0.98	92	-36**	-28**	-30**	-30**	-20*	-38**	-28**	-59**	-67**	
Frequency of sexual harassment	0.24	0.34	-	32**	16*	15	15	19*	33**	31**	21*	27**	-26**

Notes: Decimal points omitted from correlation matrix and reliability coefficients

*p = 0.05

**p = 0.01

Table III.
Descriptive statistics,
reliabilities and inter-
correlations for females
in the sample ($n = 137$)

Table IV.
Descriptive statistics,
reliabilities and inter-
correlations for males
in the main sample
(*n* = 154)

	M	SD	α	1	2	3	4	5	6	7	8	9	10
Turnover intentions	3.11	1.94	85										
Headaches	1.50	0.65	89	20*									
Gastric problems	1.53	0.58	78	39**	25**								
Sleep problems	2.27	0.71	80	25**	23**	26**							
Respiratory problems	3.39	0.96	73	24**	34**	43**	20**						
Supervisor dissatisfaction	2.24	0.70	88	32**	02	19**	09	02					
Co-worker dissatisfaction	2.23	0.64	86	23**	03	16*	15*	02	36**				
Depression	1.59	0.65	87	39**	13	21**	23**	12	-47**	28**			
Anxiety	1.70	0.52	80	36**	25**	27**	35**	13	38**	29**	77*		
Positive mood	2.92	0.89	89	-43**	-06	-23**	-16*	-08	-43**	-16*	-39**	-42**	
Frequency of sexual harassment	0.24	0.29	-	16*	20**	25**	21**	10	26**	22**	14	22**	-09

Notes: Decimal points omitted from correlation matrix and reliability coefficients

**p* = 0.05

***p* = 0.01

In all cases, we asked subjects to respond according to their experiences or affect within the last three months. In reporting all the data, the mean score reported is the average score obtained across all items:

- *Sexual harassment.* Items were included in the sexual harassment questionnaire if they clearly described behaviours (e.g. “being fondled”, “being kissed”, “being restrained”), actions (e.g. “saw pornographic materials distributed”) or heard comments (e.g. “being talked down to because of your gender”) have been identified in the literature as constituting sexual harassment. Respondents rated the frequency of the event if it had occurred (1 = rarely, 5 = frequently). For each of the 31 items, respondents were asked to indicate which of the events they had experienced initiated by a member of the opposite sex; hence, any homosexual sexual harassment was excluded.
- *Work-related negative mood.* This was measured with a 15-item modified and expanded version of Nowlis’[31] 12-item mood adjective checklist. First, we used a five-point rating scale. Second, we used 15 items in total because we wanted to assess the depressive and anxiety components of negative mood. Third, we asked respondents to indicate the extent to which the items reflected work-related negative mood.
- *Turnover intentions.* These were measured by the three-item scale from the Michigan Organizational Assessment Questionnaire (see [32]).
- *Psychosomatic health.* This was assessed with Spence *et al.*’s[33] 22-item scale which assessed respiratory infections (three items), digestion and elimination problems (five items), headaches (five items), sleeping habits (six items) and general health (three items). There is some support for the reliability and factorial independence of the separate scales[33,34].
- *Interpersonal job dissatisfaction.* We focused on two interpersonal facets of job dissatisfaction, namely co-worker and supervisor dissatisfaction, because most sexual harassment is perpetrated either by co-workers or supervisors. Both were measured using 18-item sub-scales from Smith *et al.*’s[35] job descriptive index. Strong support exists for the reliability and validity of these scales[36].

Method of data analysis

The proposed model was formulated as a latent variable structural model and assessed using maximum likelihood estimation as implemented in LISREL VIII[37]. To establish the fit of the proposed model, we followed the two-step modelling procedure outlined by Anderson and Gerbing[38]. The first step in the procedure is to establish the fit of the measurement model. To do so, we calculated the fit of the proposed measurement model and a null model specifying all variables as separate and orthogonal factors. After establishing the fit of the measurement model, we proceeded to examine the proposed structural model.

After establishing the fit of the model based on the original sample of 202 women, we tested the model on two replication samples. First, we examine the model's fit based on data from 154 men employed in the same organizations. Following the procedures outlined by Jöreskog and Sörbom[37], we explicitly test for the invariance of parameters across these two samples. Second, we test the fit of the model based on the replication sample ($n = 137$).

To assess model fit, we examined the LISREL fit indices (e.g. χ^2 , GFI, AGFI) as well as Bentler and Bonnet's[39] normed fit index (NFI) and the Tucker-Lewis index (TLI). All analyses were based on the covariance matrices.

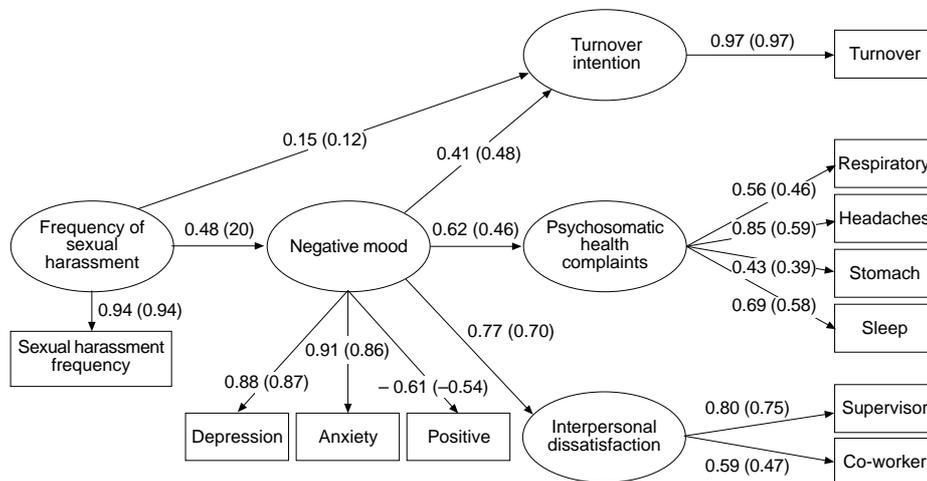
Test for common method variance. Following Podsakoff and Organ[30], we assessed the amount of variance accounted for when all the variables contained in the model were entered into an exploratory factor analysis. For neither the females nor males in the main sample, or the females in the replication sample, was a substantial amount of variance explained by the first factor (36.2, 27.3 and 42.3 per cent respectively).

Sample 1 (women, $n = 202$). For the first sample, the null model did not provide an adequate fit to the data ($\chi^2(55) = 815.93, p < 0.01$). The proposed measurement model, however, provided an excellent fit to the data ($\chi^2(36) = 33.94, n.s., GFI = 0.97, AGFI = 0.95, NFI = 0.96, TLI = 0.94$). Moreover, the hypothesized latent variable model incorporating both structural and measurement relations also provided an excellent fit to the data ($\chi^2(41) = 53.60, n.s., GFI = 0.95, AGFI = 0.93, NFI = 0.93, TLI = 0.93$).

Standardized parameter estimates for Canadian women are presented in Figure 2. Sexual harassment emerged as a significant predictor of both negative mood ($\beta = 0.58, p < 0.01$) and turnover intentions ($\beta = 0.20, p < 0.05$). In turn, negative mood predicted turnover intentions ($\beta = 0.36, p < 0.01$), psychosomatic symptoms ($\beta = 0.62, p < 0.01$) and interpersonal job dissatisfaction ($\beta = 0.77, p < 0.01$).

Sample 2 (males, $n = 154$). For men, both the proposed measurement model ($\chi^2(36) = 55.49, p < 0.05; GFI = 0.94, AGFI = 0.89, NFI = 0.87, TLI = 0.80$) and the proposed latent variable model ($\chi^2(41) = 86.20, p < 0.05; GFI = 0.91, AGFI = 0.85, NFI = 0.80, TLI = 0.73$) provided reasonable but not outstanding fits to the data. Standardized parameter estimates for the model are presented in Figure 2. Sexual harassment predicted negative mood ($\beta = 0.20, p < 0.01$) but not turnover intentions ($\beta = 0.12, n.s.$). Negative mood predicted turnover intentions ($\beta = 0.48, p < 0.01$), psychosomatic symptoms ($\beta = 0.46, p < 0.01$) and interpersonal job dissatisfaction ($\beta = 0.70, p < 0.01$).

Cross-gender comparisons. We present two sets of analyses to contrast the data obtained for men and women. First, females reported a higher frequency of sexual harassment than did males ($M = 10.67$ vs $7.16, t(455) = 2.9, p < 0.01$). Second, to contrast the parameter estimates based on the female and male samples we first estimated the model simultaneously in both samples ($\chi^2(82) = 139.80, p < 0.01$). Next, we constrained the structural parameters (in the beta matrix) in the male model to be equal to those based on the female data ($\chi^2(87)$



Note: Data for Canadian males presented in parentheses

Figure 2. Standardized parameter estimates for the model: Canadian women and men

= 169.32, $p < 0.01$). Comparison of these models suggested that at least some of the individual structural parameters differed significantly between males and females ($\chi^2_{\text{difference}}(5) = 22.52, p < 0.01$). To explore this difference further, we conducted a series of tests in which structural parameters based on the male sample were individually constrained to equal the corresponding parameter based on the women's data. Two parameters differed significantly across samples. First, the prediction of negative mood from sexual harassment was considerably stronger for women ($b = 0.40$) than for men ($b = 0.16$); $\chi^2(1) = 11.90, p < 0.01$. Second, the prediction of turnover intentions from sexual harassment was significantly greater for women ($b = 0.40$) than it was for men ($b = 0.33$); $\chi^2(1) = 5.47, p < 0.01$. All other structural parameters were invariant across the two samples.

Replication sample (n = 137). The proposed measurement model ($\chi^2(36) = 34.28, n.s., GFI = 0.96, AGFI = 0.92, NFI = 0.93, TLI = 0.90$) and latent variable model ($\chi^2(41) = 58.15, p < 0.05, GFI = 0.93, AGFI = 0.89, NFI = 0.88, TLI = 0.85$) also provided acceptable fits to the data for the replication sample. Standardized parameter estimates for the model are presented in Figure 3. Once again, sexual harassment predicted negative mood ($\beta = 0.31, p < 0.01$) and turnover intentions ($\beta = 0.23, p < 0.01$). Negative mood predicted turnover intentions ($\beta = 0.42, p < 0.01$), psychosomatic complaints ($\beta = 0.61, p < 0.01$) and interpersonal job dissatisfaction ($\beta = 0.68, p < 0.01$).

Cross-sample, within-gender comparisons. To examine the stability of the model parameters across samples, we contrasted the structural parameters estimated for the Canadian women (see Figure 2) and US women (see Figure 3) using LISREL's capacity for multi-sample analyses. There were no significant

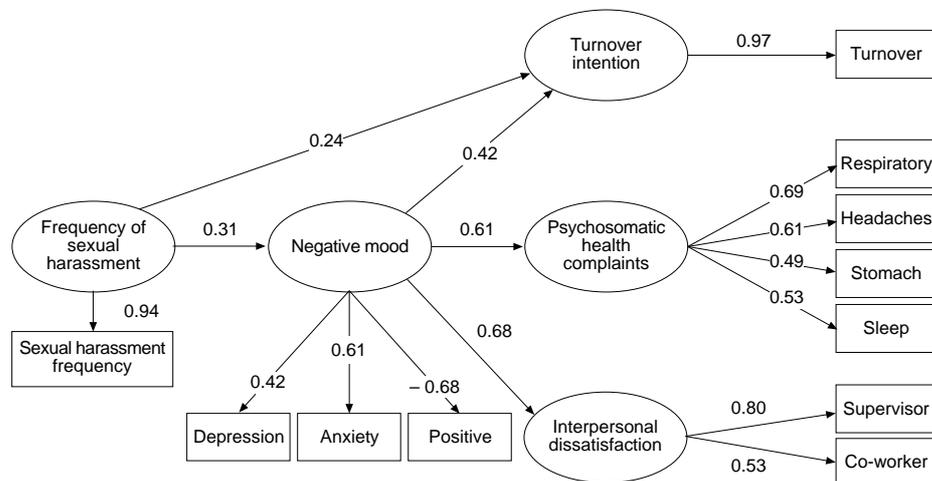


Figure 3.
Standardized parameter
estimates for the model:
US women

differences in the structural parameters obtained by freely estimating the model in both samples ($\chi^2(82) = 111.75, p < 0.05$) and those obtained by constraining the parameters in the US sample to equal those obtained for the Canadian sample ($\chi^2(87) = 116.06, p < 0.05$); $\chi^2_{\text{difference}}(5) = 4.31, n.s.$

Discussion

The results obtained suggest strong support for our proposed model of the consequences of sexual harassment. In all three samples, the frequency of sexual harassment exerted a direct effect on negative work-related mood, which, in turn, affects turnover intentions, psychosomatic problems (headaches, sleep problems, gastric problems, upper respiratory infections) and interpersonal dissatisfaction (i.e. with co-workers and supervisors), and the size of the path coefficients was considerable. In addition, the frequency of sexual harassment was a positive predictor of turnover intentions for both female samples but not for the male sample.

Our results provide support for the notion that any effects of sexual harassment are similar to those of more conventional work stressors, inasmuch as they influence work-related affect, which in turn affects psychosomatic complaints, turnover intentions and interpersonal job dissatisfaction. Moreover, consistent with models of organizational stress, our findings emphasize the importance of the subjective experience of the sexual harassment. With the exception of the direct prediction of turnover intentions by sexual harassment, our data suggest that when events result in negative mood, adverse psychosomatic health, turnover intentions and interpersonal job satisfaction consequences ensue.

The prediction that males and females would respond differently to sexual harassment was borne out by the results. Females reported a higher frequency of sexually harassing events. Moreover, although the structural parameters for the two female samples did not differ, the model based on the male sample was substantially different from the female model. Specifically, the prediction of both negative mood and turnover intentions from sexual harassment was stronger for women (in both the Canadian and US samples) than for men. Taken together, these findings suggest that the men and women participating in this study differ significantly in both their experience of, and reaction to, sexual harassment. With respect to the effects of sexual harassment, males do not experience the same negative effects as females, as evidenced by significant links with the outcomes, although the magnitude of the links was significantly lower. Our research focused primarily on females and thus precludes any in-depth assessment of males' experience of harassment; in effect, males served as a contrast group. Future research should focus on any sexual harassment experienced by males, as well as the nature, prevalence and consequences of any homosexual harassment.

Some potential limitations inherent in this study must be addressed. First, we must consider whether our sole use of self-report data influences the findings in any way. While common method variance always remains a possible explanation for results obtained using self-report data, we suggest that this is not likely in this study. Consistent with Podsakoff and Organ[30], less than 50 per cent of the variance was accounted for in the first factor in exploratory factor analyses of all the variables contained in the proposed model; and the same three interpretable factors emerged in all three samples. Moreover, because the self-report of sexual harassment concerned the frequency of such events rather than responses to the events, it may be less susceptible to self-report biases[40]. Nonetheless, we still recognize the need to go beyond exclusive reliance on self-report measurement.

A second potential limitation concerns the low response rates obtained in two of the five samples (specifically, those of the provincial nurses association and the office equipment company in Canada). In both these samples, we had minimal control over the process of distributing and collecting questionnaires, certainly less than in the other samples we studied. Because the findings from the main sample were replicated in the US sample in which the response rate was 31 per cent, we suggest that the findings are not a function of the response rate. Nonetheless, the logic contained here argues for the internal validity of the findings (i.e. sexual harassment rather than a methodological confusion accounts for the findings). Even though we replicated the model across cross-national samples, it remains for future research to address further the external validity or generalizability of the model.

Other suggestions for future research on workplace sexual harassment in general, and our model of harassment in particular, can be made. First, the type of sexual harassment that is experienced may exert different effects. For example, sexual harassment could consist of gender-based insults, actual or

threatened physical contact, or threats of negative organizational consequences for refusals to engage in dates or sexual activities (e.g. [41]). We could not assess whether different types of sexual harassment exert different effects with our data because of insufficient items in some categories, and future research should focus more specifically on the nature of sexual harassment.

A second direction for future research concerns the nature of any indirect outcomes. While those studied here (e.g. psychosomatic complaints, turnover intentions and interpersonal job performance) are important to employees, employers may be more likely to base any decisions about policy implementation on whether empirical links between sexual harassment and actual performance could be demonstrated. It is to this issue that we turn in our second study.

Study 2

The purpose of this study was both to replicate our findings on a different sample, as well as to extend the findings by examining the impact of sexual harassment on performance. Aside from the conceptual questions of whether sexual harassment affects performance, important practical implications would ensue if such a link could be demonstrated. Presumably, showing a link between sexual harassment and performance would make the case for intervention much stronger. It is often difficult to obtain valid measures of performance in organizational research. Among student samples, measures of quantitative performance (i.e. grades) are readily obtainable. Accordingly, in this study we develop and evaluate an analogous model of the effects of sexual harassment, in which student performance is an outcome.

Consistent with our previous findings, the proposed model postulates that the frequency of sexual harassment has a direct negative effect on mood. In turn, mood predicts grades as an index of performance. We also expect that negative mood will have adverse effects on the ability to concentrate[8]. Thus, negative mood will be associated with cognitive distractions; as such distraction increases, grade performance will decrease. Negative mood is also hypothesized to influence both psychosomatic symptoms and self-esteem. The potential consequences of sexual harassment on self-esteem are well documented in anecdotal reports, and self-esteem is of considerable relevance in student populations[42].

Method

Subjects and procedure. The sample for this study consisted of 141 female undergraduate student volunteers. We excluded students in their first year of study, as they would probably only experience large classes where the likelihood of sexual harassment may be minimized because any interpersonal interactions with faculty, administrators and tutors would be minimal. Students were approached at the end of regular classes and asked whether they would complete a questionnaire on interactions between students on the one hand, and male professors, administrators and markers on the other. We chose to study

these three groups as each of them potentially holds considerable power over undergraduate female students.

The average age of the sample was 21.49 years ($SD = 1.32$), 14 per cent of whom were in their second year of study, 37 per cent in their third year, 46 per cent in their fourth year, and the remaining 3 per cent in their fifth year of study.

Measures. To enhance comparisons across the various samples, we used the same questionnaires as in the previous study wherever possible. Thus, the same questionnaire was used to assess the frequency of sexual harassment, negative mood (only items assessing negative mood were included in this study), and psychosomatic health. Descriptive statistics, intercorrelations and internal consistencies of the study variables are presented in Table V.

To assess grades, we used the questionnaire from Steinberg and Dornbusch[43] and Barling *et al.*[42]. Thus, we asked students to provide all their grades from the most recent semester, and we used the average of these grade scores. Cognitive distraction was assessed with Fryer and Warr's[44] 12-item scale, which focused on their alertness and ability to attend to everyday activities, and the extent to which students had experienced problems concentrating. To assess students' self-esteem, we used Rosenberg's[45] ten-item self-esteem scale. Items were rated on a four-point scale, ranging from "never" to "almost always".

Method of data analysis. As in Study 1, we followed Anderson and Gerbing's[38] two-stage modelling procedure to evaluate the proposed model. The model was proposed as a latent variable model with several constructs (e.g. sexual harassment, grades, cognitive distraction, self-esteem) operationalized as single-indicator latent variables[46]. Once again, all analyses are based on the covariance matrix and the model was estimated using maximum likelihood estimation as implemented in LISREL VIII.

Results. Both the measurement model ($\chi^2(17) = 25.95$, n.s., GFI = 0.96, AGFI = 0.89, NFI = 0.91, TLI = 0.82) and the latent variable model ($\chi^2(26) = 38.76$, n.s., GFI = 0.94, AGFI = 0.90, NFI = 0.87, TLI = 0.83) provided acceptable fits to the data. Standardized parameter estimates are presented in Figure 4.

As shown, sexual harassment predicted negative mood ($\beta = 0.19$, $p < 0.01$), which in turn predicted psychosomatic symptoms ($\beta = 0.82$, $p < 0.01$), self-esteem ($\beta = -0.59$, $p < 0.01$) and cognitive distraction ($\beta = 0.69$, $p < 0.01$). Contrary to our hypotheses, negative mood did not predict grades directly ($\beta = -0.02$, n.s.), although grades were predicted by cognitive distraction ($\beta = -0.29$, $p < 0.01$).

Discussion

As in Study 1, the results of these analyses offer considerable support for the hypothesized model. Sexual harassment again emerged as a predictor of mood, which predicted psychosomatic symptoms and, in this case, also predicted self-esteem. Moreover, negative mood affected grades indirectly through its effects on cognitive distraction. Thus, sexual harassment can again be viewed appropriately as a stressor. Moreover, it is the subjective response to sexual

Table V.
Descriptive statistics,
reliabilities and inter-
correlations for the
student sample
(*n* = 120)

	M	SD	α	1	2	3	4	5	6	7	8
Headaches	2.26	0.95	0.89								
Stomach problems	1.74	0.76	0.81	37**							
Sleep problems	2.31	0.75	0.89	43**	43**						
Upper respiratory tract infections	1.91	0.61	0.74	12	31**	28**					
Self-esteem	3.40	0.56	0.89	-27**	-20*	-39**	-09				
Average grades (%)	76.57	6.38	-	-14	-12	-08	-06	16			
Cognitive distraction	3.77	6.45	0.62	42**	25**	48**	21*	-48**	-26**		
Negative mood	2.39	0.78	0.91	46**	40**	55**	38**	-50**	-18*	59**	
Frequency of sexual harassment	2.89	2.78	-	20*	11	12	-06	-09	-04	-01	20*

Notes: **p* = 0.05

***p* = 0.01

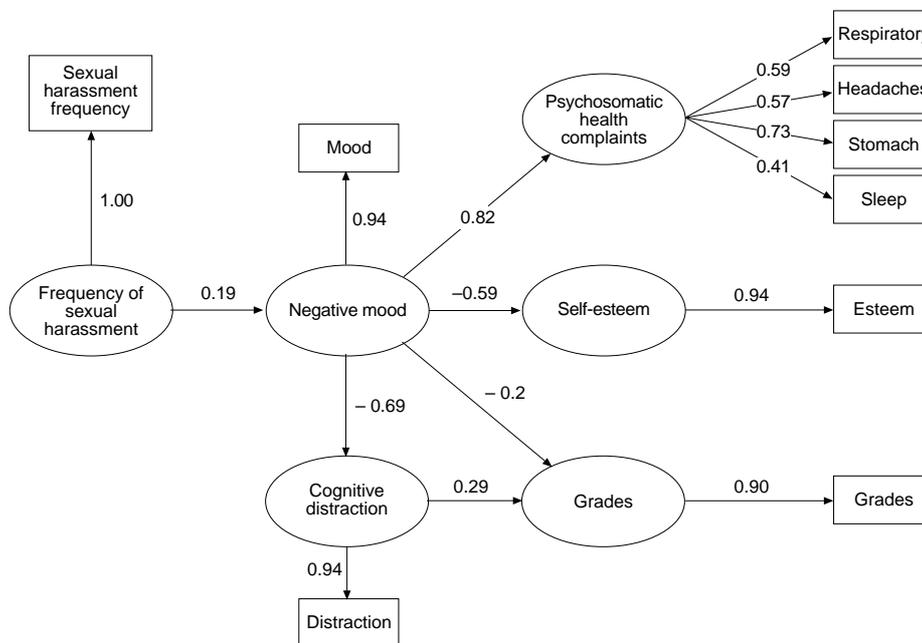


Figure 4. Standardized parameter estimates for the student sample

harassment (i.e. negative mood) that is the most proximal predictor of personal outcomes and performance.

We chose to study grades because of the need to obtain an objective measure of performance. Although grades were obtained from self-reports in this study, students' self-reported grades correlate substantially with actual grades in large samples ($n = 1,146$, $r = 0.76$ [47]) and small samples ($n = 24$, $r = 0.98$ [48]). Thus, we argue that our measure of self-reported grades provides a reasonable proxy for work performance, and the fact that sexual harassment negatively affected performance extends the findings of Study 1. Indeed, our measure may provide an underestimate of the real effects of sexual harassment, because our measure reflects average grades rather than grades from a specific course in which sexual harassment had occurred. Taken together with the results of Study 1, these findings extend implications for intervention and future research.

General discussion

Perhaps the most frequently-invoked strategy for dealing with sexual harassment is the introduction of specific policies, and research shows that, when invoked, such policies could be very effective[49]. More importantly, the results of that study showed that perceived organizational policies and sanctions would even suppress the likelihood of sexual harassment under personal conditions (e.g. poor individual perspective taking and adverse sexual

beliefs) most likely to foster its occurrence[49]. The results of our studies also provide some indication of which individual-level interventions might be beneficial. While reiterating that the most preferred intervention from an ethical and practical standpoint would be the prevention or elimination of sexual harassment, necessity dictates that the negative consequences which victims of sexual harassment will experience receive attention. Like the effects of the experience of unemployment[14], any effects of sexual harassment are mediated by negative mood. Aside from explaining how such effects are transmitted, this mediating function also suggests that the negative consequences of sexual harassment might be limited or lessened by focusing efforts on reducing the level of negative mood. Again, however, the primary focus should be on preventing sexual harassment, and the effectiveness of organizational policies and sanctions should be investigated[49].

In conclusion, our results show how experiencing sexual harassment exerts direct effects on work-related negative mood, and indirect effects on several outcomes (e.g. turnover intentions, interpersonal job dissatisfaction and psychosomatic complaints) which are relevant to optimum employee functioning, and that females respond more negatively to sexual harassment than do males. The validity of these findings is strengthened because they were replicated in separate samples of employees and undergraduate students, and problems arising from common method variance were minimized. Moreover, sexual harassment was shown to influence indirectly two aspects relevant to performance, namely cognitive distraction and grades. Thus, calls to minimize the occurrence of sexual harassment can now be justified not only on an ethical basis, but also because empirical data show its relevance to the optimal functioning of employees in organizations.

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