Sex and Power in the Academy: Modeling Sexual Harassment in the Lives of College Women
Marisela Huerta, Lilia M. Cortina, Joyce S. Pang, Cynthia M. Torges and Vicki J. Magley
Pers Soc Psychol Bull 2006 32: 616
DOI: 10.1177/0146167205284281

The online version of this article can be found at:
http://psp.sagepub.com/content/32/5/616

Additional services and information for Personality and Social Psychology Bulletin can be found at:

Email Alerts: http://psp.sagepub.com/cgi/alerts
Subscriptions: http://psp.sagepub.com/subscriptions
Reprints: http://www.sagepub.com/journalsReprints.nav
Permissions: http://www.sagepub.com/journalsPermissions.nav
Citations: http://psp.sagepub.com/content/32/5/616.refs.html
Sex and Power in the Academy: Modeling Sexual Harassment in the Lives of College Women

Marisela Huerta
Lilia M. Cortina
Joyce S. Pang
Cynthia M. Torges
University of Michigan

Vicki J. Magley
University of Connecticut

The authors build an integrated model of the process by which academic sexual harassment undermines women’s well-being; also examined is harasser power as a potential moderator of this process. Data from 1,455 college women suggest that sexual harassment experiences are associated with increased psychological distress, which then relates to lower academic satisfaction, greater physical illness, and greater disordered eating. The cumulative effect is greater disengagement from the academic environment, which in turn relates to performance decline (i.e., lower grades). Regardless of how frequently the harassment occurred, academic satisfaction was lower when the harassment came from higher-status individuals (i.e., faculty, staff, or administrators). At the same time, harassment was equally detrimental to mental health, regardless of who perpetrated it. The article concludes with implications for theory, research, and intervention.

Keywords: sexual harassment; college women; well-being; power

Research indicates that one in every two women experiences some form of sexual harassment during her college years (Cortina, Swan, Fitzgerald, & Waldo, 1998; Fitzgerald et al., 1988). This finding has led some to label sexual harassment as “the single most widespread educational hazard in academia today” (Rudman, Borgida, & Robertson, 1995, p. 519). Academic sexual harassment, however, is not a new social problem; it has long threatened women in the context of school, interfering with equal opportunities in higher education (Fitzgerald et al., 1988; Koss et al., 1994; Till, 1980) and in secondary education as well (Duffy, Wareham, & Walsh, 2004; Lee, Croninger, Linn, & Chen, 1996). Moreover, various studies have uncovered deleterious effects of sexual harassment on victims’ psychological, physical, and academic well-being (e.g., Cleary, Schmieler, Parascenzo, & Ambrosio, 1994; Cortina et al., 1998; Dansky & Kilpatrick, 1997).

An important next step in academic sexual harassment research is to integrate the plethora of findings from prior studies into a more holistic understanding of sexual harassment as a chronic stressor. It is also important to locate this process within a theoretical framework. To our knowledge, no research to date has examined student outcomes of sexual harassment within an integrated, theoretically driven model. The present study will address this dearth in the literature by developing and testing a model of the process by which sexual harassment outcomes unfold in the lives of college women. Specifically, we will determine how sexual harassment relates to their mental, physical, and academic...
well-being. A secondary focus will be perpetrator status, to investigate whether patterns of sexual harassment outcomes vary, depending on whether the harassing behavior comes from peers versus those in power. To provide a theoretical backdrop for this research, we will draw on theories of stress.

Sexual Harassment Defined

For some time, researchers have recognized sexual harassment as a form of violence against women (Koss et al., 1994). Although men are occasionally harassed, it is women who are most often the targets of sexually harassing behavior (e.g., Fitzgerald, Magley, Drasgow, & Waldo, 1999; Gutek, 1985). Owing to the striking gender disparities in sexual harassment risk, the law recognizes such harassment as a form of sex discrimination under both Title VII of the Civil Rights Act of 1964 (protecting employees) and Title IX of the Education Amendment of 1972 (protecting students at educational institutions that receive federal funds).

Specific definitions for sexual harassment in higher education vary across institutions, but many reflect language from research conducted by The National Advisory Council on Women’s Educational Programs. That research defined “academic sexual harassment” as “the use of authority to emphasize the sexuality or sexual identity of a student in a manner which prevents or impairs that student’s full enjoyment of educational benefits, climate, or opportunities” (Till, 1980, p. 7).

The definition above, and those used by many academic institutions, implies that sexual harassment can only come from authority figures. In fact, some research suggests that harassers often have formal power over their victims (Lott, Reilly, & Howard, 1982; Rubin & Borgers, 1990), and many studies of academic sexual harassment have focused only on behaviors perpetrated by faculty and instructors (e.g., Barak, Fisher, & Houston, 1992; Cortina et al., 1998; Fitzgerald et al., 1988; Malovich & Stake, 1990; Schneider, 1987). Other investigations, by contrast, have reported that a substantial percentage of college women are harassed by peers (Reilly, Lott, & Gallogly, 1986; Shepela & Levesque, 1998). In fact, some research indicates that peer sexual harassment is much more prevalent than harassment by faculty and instructors (American Association of University Women Educational Foundation [AAUW], 1993). In addition, Ivy and Hamlet (1999) found that 81% of female college students considered peer sexual harassment to be a serious problem.

Understanding Sexual Harassment Through the Framework of Stress

Conceptualizing sexual harassment in the academy as a source of psychological stress can inform our understanding of victim outcomes. Lazarus and Folkman’s (1984) seminal work explains that stressful experiences and interactions include those that harm an individual and those that contain the threat of negative implications for the future. Particularly stressful are events with low predictability, low control, and high imminence. All of these characteristics are typical of sexual harassment, which can inflict unexpected damage to self- and social esteem such that the target feels taxed and unable to cope. In addition, Lazarus and Folkman (1984) note that situations are appraised as stressful if there is a previous association with mastery. For students in the university, many of their prior academic experiences may have been positive, so sexual harassment creates a novel situation that runs counter to past experience. For these various reasons, sexual harassment is a serious stressor on college campuses.

Not only is sexual harassment stressful but it is often a source of chronic stress. Gottlieb (1997) characterizes chronic stressors as “persistent demands” that are “woven into the tapestry of life” (p. 10). Chronic stressors generally distinguish themselves from acute or traumatic events in that they have an extended duration, an onset that is difficult to identify, and no clear or predictable offset (Wheaton, 1997). The most prevalent sexually harassing behaviors involve gender disparagement, misogyny, and crude sexual conduct that persists over time, often evolving into a chronically stressful experience for the target (Cortina & Wasti, 2005). Not to be taken lightly, chronic stressors can have a greater impact on psychological and health outcomes than major, exceptional life events (e.g., DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982; DeLongis, Folkman, & Lazarus, 1988; Jandorf, Deblinger, Neale, & Stone, 1986; McGonagle & Kessler, 1990).

Sexual harassment may be particularly stressful during college years when young women are at a critical stage of their personal and professional development. They are in the process of establishing sexual and vocational identities, social networks, and autonomy from their families of origin (e.g., Arnett, 2000). Furthermore, some women in this stage of “emerging adulthood” are economically quite vulnerable, transitioning away from the financial support of their parents and not knowing yet about postgraduate job prospects (e.g., Hamilton, 1990). To the extent that sexual harassment interferes with developmental tasks and threatens women’s educations, careers, and incomes, this victimization can be particularly distressing for this population. Students also might be especially vulnerable to the negative outcomes of sexual harassment as it occurs in the university context because stressors can be particularly potent when they involve the central and public commitments of an individual (Lazarus & Folkman, 1984).
fore critical that we understand this stressful phenomenon and its consequences from the unique perspective of women in college.

**Sexual Harassment Consequences**

Similar to other manifestations of stress, experiences such as sexual harassment may have short-term and long-term effects on various domains of well-being. To begin, research has accumulated to suggest that sexual harassment can take a heavy psychological toll on victims. Outcomes include depressed mood, anxiety, concentration difficulties, and diminished ambition, self-confidence, and self-esteem (Cleary et al., 1994; Gruber & Bjorn, 1986; Hamilton, Alagna, King, & Lloyd, 1987; Holgate, 1989). Some sexually harassed women even show signs of posttraumatic stress (Dansky & Kilpatrick, 1997). According to Koss (1990), “most victims of [sexual harassment] experience an immediate postvictimatization generalized distress response characterized as a state of psychological shock” (p. 79). In fact, harassed women often report feelings similar to those of sexually assaulted or battered women: anger, degradation, violation, and betrayal (Walker, Erickson, & Woolsey, 1985).

The level of psychological distress triggered by sexual harassment can be a strain on physical health; indeed, harassed women experience a range of somatic problems, including sleep disturbances, headaches, neck and back pain, fatigue, and gastrointestinal distress (Cleary et al., 1994; Dansky & Kilpatrick, 1997; van Roosmalen & McDaniel, 1998). Recent investigations of sexual harassment in secondary schools corroborate such associations, finding that sexually harassed adolescents report difficulty sleeping and loss of appetite as a result of being harassed (Duffy et al., 2004).

Research has suggested that sexual harassment also may lead to unhealthy behaviors such as disordered eating (Cleary et al., 1994). One study of undergraduate women found body image and eating disturbances to be among the consequences of sexual harassment (Harned, 2000). Furthermore, a recent empirical investigation revealed that the negative effects of harassment on disordered eating are mediated by psychological distress and negative perceptions of the self (Harned & Fitzgerald, 2002). Some explain that disordered eating may be a maladaptive strategy for coping with sexual victimization (Harned, 2000; Thompson, 1992). Unfortunately, such coping strategies simply serve to further damage the physical health of the victim.

In an educational context, sexual harassment has implications for not only women’s health but also their school-related behaviors and attitudes. For example, sexual harassment can affect students’ global perceptions of their academic experience. In one study, evaluations of the general campus climate fell as women endured higher rates of harassment (Cortina et al., 1998). Negative academic perceptions could deplete a student’s commitment to continue pursuing higher education. Indeed, Cortina and colleagues (1998) found that students who were harassed were less apt to consider returning to their university if they had to make their decision again. Moreover, sexually harassed college students have reported dropping classes, changing advisors, changing majors, and even dropping out of school to avoid hostile environments (Anonymous, 1991; Cammaert, 1985; Fitzgerald, 1990; Reilly et al., 1986). Likewise, harassed high school students report lowered motivation to attend classes, greater truancy, and more thoughts about changing schools (Duffy et al., 2004; Lee et al., 1996). Even women who have not been personally harassed avoid taking courses from instructors with harassing reputations (Fitzgerald et al., 1988). For these reasons, educational institutions can acquire negative images as a result of sexual harassment (Rubin & Borgers, 1990).

For those harassed women who do remain in their programs of study, academic achievement can suffer (Reilly et al., 1986). For example, negative perceptions of the academic environment may limit women’s participation in informal informational channels and relationships, interfering with their academic advancement (Dansky & Kilpatrick, 1997). High school students who have been harassed report paying less attention in class, receiving lower grades on individual assignments, and achieving lower grades in classes overall (Lee et al., 1996). Sexual harassment in an educational environment also can diminish students’ motivation to learn, particularly when the harassers are faculty who have the capacity to enhance or weaken student self-esteem (Barickman, Paludi, & Rabinowitz, 1992). Low levels of academic engagement, performance, and motivation can certainly explain the association between sexual harassment and poor grades in college women (Cammaert, 1985).

In addition to direct effects on academic outcomes, sexual harassment may have an indirect effect via psychosomatic impairment. In other words, symptoms of depression, anxiety, and ill health could very well interfere with scholastic achievement, consistent with the educational psychology literature (e.g., Roeser, Eccles, & Freedman-Doan, 1999).

**Perpetrator Status as a Moderator of Outcomes**

Sexual harassment has adverse effects whether perpetrated by peers or superiors (Bogart, Simmons, Stein, & Tomaszewski, 1992), but harassment from above may be associated with greater harm. For instance, Thacker and Ferris (1991) theorize that sexual harassment from people in power is more damaging because it fosters learned
helplessness, whereas peer harassment does not. Although little work has addressed this issue in academic settings, workplace research demonstrates that harassment by men who are higher than the victim in the institutional hierarchy has the most negative consequences (O’Connell & Korabik, 2000). If the harassment process plays out similarly in the university context, prior empirical and theoretical work suggests that sexual harassment from higher-status individuals (e.g., faculty and administrators) should be worse than peer harassment. Supporting this possibility, preliminary research suggests that although peer harassment was more common, students rated sexually harassing experiences from faculty as “more serious” than harassment from fellow students (Bremer, Moore, & Bildersee, 1991).

Toward an Integrated Model

One limitation of prior research on academic sexual harassment is an overemphasis on cataloging individual outcomes (often using brief checklists with questionable reliability and validity) without attention to how these outcomes relate and unfold as part of one process. A more holistic, process-oriented approach is needed so that we can understand the direct, mediated, and moderated impact of sexual harassment in academia. With this goal in mind, we sought to integrate prior findings into a process model of academic sexual harassment as a chronic stressor. We also aimed to test this model in a large sample of university women to overcome a second major limitation of much past research in this area: reliance on smaller, nonrepresentative samples.

Process models of sexual harassment have been created and tested to account for the experiences of working women (e.g., Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997), and this research can inform the development of models that capture the experience of university students. Based on the theoretical and empirical work reviewed above, we developed the model depicted in Figure 1. Our model proposes that harassing experiences will lead to somatic complaints and psychological distress (the latter will further exacerbate somatic problems), consistent with past research. We also anticipated harassment to have an indirect impact on disordered eating by way of psychological distress (in accord with Harned & Fitzgerald, 2002). Owing to nutritional losses, electrolyte imbalances, and potential cardiac events that can accompany disordered eating (e.g., Fairburn & Brownell, 2002), the latter should further compound physical health problems. An additional expectation was that sexual harassment would have an adverse impact on global attitudes toward the institution, as indicated by lower overall satisfaction.

Because mental and physical health problems and poor academic attitudes can interfere with the motivation and ability to participate in schooling (e.g., Roeser et al., 1999), a distal outcome in this process should be disengagement from the educational enterprise. Logically, we expected academic disengagement to nega-
tively affect academic performance, as indicated by lower grades. Figure 1 summarizes this collection of hypotheses, showing which relationships are expected (evidenced by an arrow between constructs) and the anticipated valence of each relationship (positive or negative).

Finally, prior scholarship (Bremer et al., 1991; O’Connell & Korabik, 2000; Thacker & Ferris, 1991) also led us to expect that the perpetrator’s status within the institution may moderate the effects of sexual harassment. Specifically, compared to harassment from peers, harassment from higher-status individuals should exacerbate the negative effects of sexual harassment.

METHOD

Participants

Students from a small, public university in the northwestern United States were invited to participate in this study if they met the following criteria: (a) degree-seeking, (b) age 18 or older, (c) enrolled at least halftime, and (d) up-to-date contact information on file. Of the 8,172 students contacted, 3,347 responded, yielding a 41% response rate. This response rate is typical of other surveys addressing sensitive (sexual) topics in college settings (e.g., Hinrichs & Rosenberg, 2002; Reilly et al., 1986; Schneider, 1987). Moreover, the gender and racial breakdown of this sample closely matched the demographics of the larger university. The current study focuses only on women’s data, yielding an effective sample size of 1,455 following list-wise deletion.

Ninety-one percent of these female college students identified as White/European American; other ethnic identities included Asian American or Pacific Islander (4%), Hispanic American (2%), Native American or Alaskan Native (1%), and Black/African American (0.5%). The mean age of this sample was 23.13 years ($SD = 6.86$). Seventy-one percent reported that they were single, with the rest of the sample either living with a partner (10%), being married (15%), or being divorced, separated, or widowed (3.5%). Just over 83% of these women identified as undergraduate students.

Procedure

Survey procedures followed Dillman’s (2000) Tailored Design Method. Specifically, students received an advance notice about the survey, followed 5 days later by a letter urging participation, both on university letterhead from the university president. Nonrespondents received up to two reminders, spaced 10 days apart. All correspondence contained information about how to complete the survey on a restricted-access Web site (all students had Internet access). As a further incentive for participation, respondents had an opportunity to win gift certificates through random drawings.

Instrumentation

The surveys included a number of multi-item scales; most relevant to the current study are measures of personal experiences of sexual harassment as well as general psychological, physical, and academic functioning. Of importance, questions about general functioning appeared prior to questions about experiences of harassment to allow for an unbiased assessment of student functioning. All items were scored such that higher values reflect higher levels of the underlying construct.

Sexual harassment behaviors and perpetrators. Sexual harassment was assessed using 12 items from Fitzgerald et al.’s (1988) Sexual Experience Questionnaire (SEQ), a behaviorally based scale with excellent psychometric properties (Arvey & Cavanaugh, 1995). Fitzgerald and colleagues (1988) reported SEQ coefficient alphas ranging from .86 to .92, a test-retest reliability coefficient of .86, and clear evidence of construct validity. The SEQ assessed the frequency with which students had experienced three types of sexual harassment: gender harassment (behaviors that convey sexist, degrading, and misogynistic attitudes about women), unwanted sexual attention (unwanted touching, stroking, or repeated unwanted requests for a romantic or sexual relationship), and sexual coercion (making rewards or penalties contingent on sexual cooperation). Sample items from each respective category read as follows: “Made sexist remarks about women,” “Made unwanted attempts to stroke, fondle, or kiss you,” and “Made you feel like you were being subtly bribed with some reward or special treatment to engage in sexual behavior.” Participants reported the frequency with which they had experienced each behavior in the previous year from university faculty, administrators, staff, or students, with response options being never, once or twice, and more than once or twice (scored 0, 1, and 2, respectively). The term “sexual harassment” did not appear until the last item in the scale to avoid biasing participants’ responses.

Women who reported at least one recent encounter with sexual harassment (or harassment based on race, sexual orientation, or religion—also assessed in this survey but not the subject of the present article) branched to a section of the survey about the experience they identified as having bothered them most. They then responded to questions about the type(s) of conduct comprising that “specific experience,” and 291 of the women reported that this behavior was solely based on sex or gender (as opposed to race, sexual orientation, or religion). They next described the position of the primary perpetrator of this behavior, with choices including student, staff, faculty, or administrator. We coded the response...
Correlations, Means, Standard Deviations, and Internal Consistencies of Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sexual harassment</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.20</td>
<td>0.33</td>
<td>.87</td>
</tr>
<tr>
<td>2. Psychological distress</td>
<td>.25**</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.77</td>
<td>0.71</td>
<td>.90</td>
</tr>
<tr>
<td>3. Academic satisfaction</td>
<td>-.12**</td>
<td>-.19**</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.72</td>
<td>1.39</td>
<td>.84</td>
</tr>
<tr>
<td>4. Disordered eating</td>
<td>.13**</td>
<td>.37**</td>
<td>-.05*</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td>2.71</td>
<td>1.31</td>
<td>.79</td>
</tr>
<tr>
<td>5. Academic disengagement</td>
<td>.19**</td>
<td>.31**</td>
<td>-.13**</td>
<td>.21**</td>
<td>1.0</td>
<td></td>
<td></td>
<td>2.08</td>
<td>1.11</td>
<td>.75</td>
</tr>
<tr>
<td>6. Physical illness</td>
<td>.12**</td>
<td>.17**</td>
<td>-.05*</td>
<td>.12**</td>
<td>.29**</td>
<td>1.0</td>
<td></td>
<td>1.67</td>
<td>0.78</td>
<td>.67</td>
</tr>
<tr>
<td>7. Academic performance</td>
<td>-.02</td>
<td>-.08**</td>
<td>.10**</td>
<td>-.05</td>
<td>-.36**</td>
<td>-.18**</td>
<td>1.0</td>
<td>3.37</td>
<td>0.57</td>
<td>—</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01.

“student” as “peer perpetrator” and the responses “staff,” “faculty,” or “administrator” as “higher-status perpetrator.” Of the women whose most bothersome incident involved sexual harassment, 75% had peer perpetrators, whereas 25% were harassed by higher-status individuals. Analyses of perpetrator status focused on this subset of women.3

Victim outcomes. To indicate psychological distress, participants completed the depression and anxiety subscales of the Brief Symptom Inventory (BSI) (Derogatis & Spencer, 1983). This measure asked them to indicate the extent that each of a list of symptoms (e.g., “feeling blue,” “feeling fearful”) had distressed or bothered them during the previous 7 days, from 1 = not at all to 5 = extremely. Extensive psychometric evaluations support the reliability and validity of this measure, including strong correlations with relevant MMPI subscales (Boulet & Boss, 1991; Derogatis & Melisaratos, 1983; Derogatis & Savitz, 2000).

Disordered eating was assessed with five items drawn from two measures. Four items came from Rosenvinge et al. (2001); for example, “In the last 30 days, have you eaten to comfort yourself because you were unhappy?” and “In the last 30 days, have you been satisfied with your eating habits?” (reverse-coded). The fifth item represents a composite of items from Luce and Crowther (1999), asking, “In the last 30 days, have you used laxatives, diuretics, excessive exercise, or vomiting to control your weight?” Responses fell along a 7-point response scale ranging from 1 (never) to 7 (every day).

We determined the extent of students’ recent physical illnesses with three questions, adapted from work by Pennebaker (1982). Specifically, these items asked, in the previous month, on how many days the student had “been ill,” “visited a medical doctor,” and “missed school due to illness.” For each item, students gave a numeric response in an open text box. Because the distribution of responses to each item was highly skewed, we normalized them to the extent possible by creating ordered categories (i.e., doctor visits on 0, 1-3, or 3 or more days).

Based on work by Cortina et al. (1998), we assessed global academic satisfaction with two items: “I would recommend attending [this university] to others” and “If I had it to do over again, I would still attend [this university].” Participants responded on a 7-point response scale ranging from 1 (strongly disagree) to 7 (strongly agree). This measure has the advantage of being both extremely brief and reliable (α = .84).

Academic disengagement was assessed using an instrument developed by Ramos (2000). Patterned after measures of organizational withdrawal (Hansch, 1990; Hansich & Hulin, 1990), this scale assesses behaviors that effectively disengage students from the academic enterprise. Respondents described how frequently, in the previous semester, they had done such things as arriving late to class, sleeping in class, making excuses to get out of class, and thinking about quitting school altogether. They responded on a 7-point scale ranging from 1 (almost never) to 7 (almost always).

We requested students’ grade point average to determine their academic performance. Although this measure is self-report, previous research has demonstrated that approximately 87% of student-reported grades match school-reported grades (Bridgeman & Wendler, 1991).

RESULTS

Overview of Analytic Procedures

After examining descriptive data, we conducted structural equation modeling to test hypotheses embedded in Figure 1 using LISREL 8 (Jöreskog, Sörbom, du Toit, & du Toit, 2001). Because this represented the first test of an integrated model of academic sexual harassment, the need for model revision seemed likely. Thus, we first fit the proposed structural model on a model-development sample, which contained approximately 500 randomly drawn cases. After making theoretically and empirically justified modifications to this model, we then cross-validated the modified model on the remaining 952 cases (model-confirmation sample). Analyses concluded with a series of regressions to test for moderating effects of perpetrator status on the process by which academic sexual harassment affects proximal outcomes. Correlations among all con-
Structs, their means, standard deviations, and internal consistencies for the full sample appear in Table 1.

Frequency of Sexual Harassment

Of the women surveyed, 56.6% reported that they had experienced at least one of the behaviors specified on the SEQ at least once during the past year. Of these women, 92.4% reported experiencing gender harassment, 53% had endured unwanted sexual attention, and a further 4.8% described sexual coercion. The reader should keep in mind that these groups overlap, as many women experienced more than one form of sexual harassment.

Structural Equation Modeling Results

Prior to modeling, we randomly assigned and summed items for each construct into two to three manifest indicators. For instance, SEQ items were randomly parceled into three indicators of the latent factor ‘‘sexual harassment.’’ The only exception to this procedure was with academic performance, which we treated as an observed variable, having only one item assessing it. After constructing indicators and computing covariance matrices, we submitted these matrices to structural equation analysis using maximum likelihood estimation. We followed Raykov, Tomer, and Nesselroade’s (1991) recommendation and examined the following goodness-of-fit measures: normed fit index (NFI), nonnormed fit index (NNFI), and comparative fit index (CFI), as well as the misfit measure known as root mean square error of approximation (RMSEA) (Hu & Bentler, 1999).

Initial model (model-development sample, n = 503). We first evaluated the proposed model on a random sample of 503 women (drawn from the full sample of 1,455 women). Fit statistics for this model were as follows, χ²(94, N = 503) = 209.26, NFI = .94, NNFI = .95, CFI = .96, RMSEA = .05. Thus, the initial model provided a good fit to the data. All of the indicators loaded highly and significantly onto their respective latent constructs. Moreover, nearly all of the structural path values (9 of 11) were statistically significant, as depicted in Figure 2.

Completely standardized path coefficients suggested that harassment experiences are associated with increased distress (β = .30) but lowered satisfaction (β = –.13). The path from sexual harassment to physical illness was not significant. In turn, psychological distress was related to disordered eating (β = .30), academic disengagement (β = .25), and ill health (β = .16). Support also emerged for hypotheses that lower academic satisfaction, greater disordered eating, and greater physical illness would predict greater academic disengagement (β = –.11, .11, and .42, respectively). However, disordered eating was not significantly associated with physical illness. In terms of the most distal outcome in the model, we also found that performance suffered as a function of disengagement from the academic environment (β = –.36).

Figure 2  Initial structural model.

NOTE: Results are based on the model-development sample (n = 503 random cases). All paths are statistically significant at .05 level or better, unless denoted as nonsignificant (ns).
Modified model (model-development sample, n = 503). As anticipated, our preliminary results suggested the need for some revisions to the initial structural model. First, the path from sexual harassment to physical illness was not significant. Although it makes good theoretical sense that the stress of sexual harassment could make a target physically ill (consistent with the literature on chronic stress, e.g., DeLongis et al., 1982; DeLongis et al., 1988), some empirical work suggests that this relation is mediated through psychological distress (e.g., Fitzgerald et al., 1997). We therefore deleted the direct path between sexual harassment and illness.

Another nonsignificant path was that linking disordered eating to physical illness. It seems reasonable that periods of starvation, laxative abuse, purging, and so forth, could ultimately take a toll on the body. However, perhaps the illness measure used in this study was not sensitive to the signs of ill health most likely to result from disordered eating. For example, dizziness, headaches, cyanosis, and constipation are physical symptoms that are common among eating disorder victims (Murphy & Manning, 2003), but they may not lead a person to self-identify as sick per se. Moreover, even if students with such symptoms feel physically ill, they may not see a doctor, owing to the shame that often accompanies eating disturbances (Leary, Tchividjian, & Kraxberger, 1994). Finally, many women with eating disorders are high achievers with perfectionistic tendencies (Bers & Quinlan, 1992; Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004), which could keep them from missing school, even when ill. In hindsight, then, it makes sense that disordered eating would not relate directly to illness as operationalized in the current study (i.e., number of days sick, at the doctor’s office, and absent from school due to illness). For these reasons, we deleted the direct path from disordered eating to physical illness.

Finally, we noted a large modification index (24.23) between the latent constructs of psychological distress and academic satisfaction, suggesting the need for a path here. This link would be consistent with literature suggesting that negative affect in school settings can lead to impaired academic well-being (e.g., Roeser, Midgley, & Urdan, 1996). In sum, we decided to make three modifications to the initial structural model: deletion of paths from sexual harassment to illness and from disordered eating to illness and addition of a path from psychological distress to academic satisfaction.

Figure 3 depicts results of the analysis of the modified model (again, based on the model-development sample of 503 random cases). In terms of fit, we found the following: \( \chi^2(95, N = 503) = 188.78 \), with acceptable goodness-of-fit values on all measures (NFI = .94, NNFI = .96, CFI = .97, RMSEA = .04). Thus, the modified model approximated the data quite well. All of the parameter esti-
mates for the specified structural paths were statistically significant. We thus retained the revised model as the basis for subsequent analysis.

**Modified model (model-confirmation sample, n = 952).**

Next, we cross-validated the modified model on the remaining 952 cases. Fit indices for this model, which appears in Figure 3, were as follows: \( \chi^2(95, N = 952) = 245.26, \) NFI = .96, NNFI = .97, CFI = .97, RMSEA = .04. Thus, as with the model-development sample, the modified model fit the confirmation sample data quite well. All of the 10 structural paths were statistically significant.

Completely standardized path coefficients suggested that the experience of sexual harassment links directly to psychological distress (\( \beta = .27 \)) and reduced academic satisfaction (\( \beta = -.08 \)). Once again, psychological distress was significantly associated with disordered eating (\( \beta = .43 \)), academic satisfaction (\( \beta = -.20 \)), ill health (\( \beta = -.18 \)), and academic disengagement (\( \beta = .27 \)). Greater academic disengagement also was predicted by lower academic satisfaction (\( \beta = -.11 \)), greater eating disorder symptoms (\( \beta = .09 \)), and physical illness (\( \beta = .30 \)). In turn, academic disengagement was significantly linked to lower academic performance (\( \beta = -.45 \)).

**Regression Results**

Finally, as a secondary objective, we conducted moderated regression analyses to test whether perpetrator status moderates the process by which sexual harassment influences proximal outcomes. In other words, does harassment from a higher-status individual exacerbate the immediate effects of sexual harassment on victims? For this analysis, we only used data from the women who indicated that their most bothersome experience of harassment on campus had solely involved sexual harassment (\( n = 291 \)). It is important to note that this "specific-experience" subsample did not differ from the larger sample in critical ways. That is, we found no significant differences in the mean age of the samples and no significant differences in marital status and ethnicity.

Each regression equation contained three independent variables: sexual harassment, perpetrator status, and the interaction of harassment and perpetrator status (with sexual harassment being mean centered and status coded such that higher status = +1 and peer status = –1). The dependent variable was one of the two proximal outcomes in the model: psychological distress or academic satisfaction. A significant interaction between harassment and perpetrator status would be evidence of moderation.

Contrary to predictions, no interactions emerged significant, as seen in Tables 2 and 3. Instead, the main effect of perpetrator status was significant in predicting academic satisfaction, and the main effect of sexual harassment was significant in the prediction of psychological distress. In other words, academic satisfaction was lower when students were harassed by higher-status individuals, regardless of the frequency of harassment. At the same time, students’ distress increased with sexual harassment frequency, regardless of who perpetrated the behavior.

**Summary of Results**

The modified model suggested that women’s experiences of sexual harassment in college are associated with increased psychological distress, which then relates to lower academic satisfaction, greater physical illness, and greater disordered eating. The cumulative effect is greater disengagement from the academic environment, which in turn relates to performance decline (i.e., lower grades). Moreover, according to regression results, academic satisfaction was lower when students experienced any frequency of harassment by higher-status individuals. The impact of sexual harassment on psycho-

---

**TABLE 2:** Regression Analysis Summary for Sexual Harassment and Perpetrator Status Predicting Academic Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>( \beta )</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
<th>( F ) (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual harassment</td>
<td>–.19</td>
<td>.21</td>
<td>–.06</td>
<td>–.14*</td>
<td>.02</td>
<td>2.88 (2, 279)*</td>
</tr>
<tr>
<td>Perpetrator status</td>
<td>–.20</td>
<td>.09</td>
<td>–.14*</td>
<td>–.16*</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual harassment</td>
<td>–.04</td>
<td>.28</td>
<td>–.01</td>
<td>–.07</td>
<td>.02</td>
<td>.71 (1, 278)</td>
</tr>
<tr>
<td>Perpetrator status</td>
<td>–.23</td>
<td>.09</td>
<td>–.16*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment × Status</td>
<td>.23</td>
<td>.28</td>
<td>.07</td>
<td>.02</td>
<td>.00</td>
<td>.71</td>
</tr>
</tbody>
</table>

\( * p < .05. \)

**TABLE 3:** Regression Analysis Summary for Sexual Harassment and Perpetrator Status Predicting Psychological Distress

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>( \beta )</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
<th>( F ) (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual harassment</td>
<td>.63</td>
<td>.12</td>
<td>.31***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator status</td>
<td>.02</td>
<td>.05</td>
<td>.05</td>
<td>.09</td>
<td></td>
<td>14.16 (2, 281)***</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual harassment</td>
<td>.70</td>
<td>.16</td>
<td>.34***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator status</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment × Status</td>
<td>.11</td>
<td>.16</td>
<td>.06</td>
<td>.09</td>
<td>.00</td>
<td>0.49 (1, 280)</td>
</tr>
</tbody>
</table>

\( *** p < .001. \)
logical well-being, however, appeared to be the same regardless of the harasser status.

DISCUSSION

The past few decades have seen considerable policy changes in institutions of higher education in attempts to comply with Title IX and become more hospitable to women. Still, this and other research (e.g., Cortina et al., 1998; Fitzgerald et al., 1988) reveal that academic sexual harassment continues to pose a significant threat to this “new majority” of college students. The present study examines sexual harassment through the lens of stress, taking an in-depth look at how harassing behavior—exhibited by peers, faculty, and staff alike—detracts from the well-being of college women. We go beyond previous investigations of academic sexual harassment by examining, in an integrative fashion, the process by which negative individual outcomes unfold. Also, rather than focusing solely on peer-perpetrated or instructor-perpetrated behavior, we include all categories of sexual harassment in this study and determine whether outcomes differ depending on the formal status of the harasser. Following is a brief discussion of key findings and their implications.

Key Findings

As expected, sexual harassment had a strong, direct relationship with students’ general psychological distress levels. That is, as women endured more harassing behaviors, they described more symptoms of anxiety and depression. Those endorsing higher levels of distress also reported engaging in self-destructive, disordered eating behavior, which is consistent with prior research on women’s coping with sexual victimization (Harned, 2000; Thompson, 1992). For these women, dietary restraint, binging, and purging may represent extreme attempts to regain a sense of control over their experiences (e.g., Fairburn & Brownell, 2002); even if they cannot control their harasser’s advances, they can try to strictly control their diet and weight.

Consistent with predictions, women’s reports of poor physical health were directly associated with psychological distress and indirectly associated with sexual harassment. This finding is in line with the stress-and-coping and clinical literatures, which suggest that ongoing stressors and mental health difficulties can erode a person’s physical well-being (e.g., Lazarus & Folkman, 1984). It is also consistent with studies of chronic stress, which suggest that chronic, insidious, daily stressors can ultimately have a greater impact on physical health than exceptional, traumatic incidents: “Microevents frequently repeated over long time-spans and subconsciously experienced by the person have greater pathogenic potential than episodic dramatic events for which objective control and coping strategies may be more easily developed” (Pancheri et al., 1979; as cited in Lazarus & Folkman, 1984, pp. 193-194). Nevertheless, little research in either the academic or workplace sexual harassment literatures has focused in depth on physical health consequences of sexual harassment, so this remains a fruitful direction for future studies.

Beyond physical and mental health, women’s academic attitudes and behaviors also varied as a function of sexual harassment victimization. Specifically, sexually harassed women described less overall satisfaction with their university experience. Moreover, global dissatisfaction, physical illness, and mental health difficulties all related to students’ disengagement from the academic enterprise. The more disengagement that students reported, the worse their academic performance (i.e., the lower their GPA). In other words, this study suggests that sexual harassment in university settings has negative implications for students’ psychological and physical well-being, and its negative effects also spill over into academic domains. This form of victimization therefore interferes with the most fundamental goal of institutions of higher learning—the education of students. Aside from older studies, many of which were based on smaller samples (e.g., Cammaert, 1985; Reilly et al., 1986; Schneider, 1987), surprisingly little past research has investigated the impact of academic sexual harassment on academic outcomes (a recent exception is Cortina et al., 1998). This topic clearly warrants further research and should be expanded to include additional outcomes such as academic self-esteem and achievement motivation.

These findings also have implications for women in the workforce. Results uncovered in this study provide support for existing models of sexual harassment in the workplace. More important, this research sheds light on how the experiences of sexual harassment can ultimately affect performance. Such an impact in the academic arena could extend to influence academic/career aspirations and trajectories. This work then highlights the need to examine sexual harassment and its effects over the lifespan.

Perpetrator Status

Of note, students harassed by faculty and administrators reported lower academic satisfaction, regardless of how frequently the harassment had taken place. In contrast, psychological well-being declined, not depending on harasser status but rather on the frequency of sexual harassment experienced. It comes as no surprise that perpetrators affiliated with the university would have an effect on students’ evaluation of their university experiences. However, we did not find that perpetrator status exacerbates the impact of sexual harassment on immediate outcomes.
We were surprised to find that perpetrator status had no effect on psychological well-being, suggesting that it is equally harmful to students’ mental health when perpetrated hierarchically or laterally. However, further analysis of our data revealed that the great majority of perpetrators—both peers and nonpeers—were men (more than 80%). This means that even when perpetrators were at a similar level to female victims in the institutional hierarchy, they were still “above women” in the gender stratification of the larger society. This social location may have given male peers access to informal power, enabling them to enact harassing behaviors with the same harmful outcomes as those with formal power (Cleveland & Kurst, 1993). This suggests that research on sexual harassment should look beyond formal institutional status when considering how power affects this process. In this vein, Rospenda, Richman, and Nawyn (1998) recommend that models of sexual harassment include the confluence of gender and other social characteristics to fully understand the power hierarchies underlying sexually harassing behaviors (e.g., the availability of resources to enact or resist sexual harassment). For example, they found that power rooted in informal sources facilitated perpetration of contrapower sexual harassment (referring to “bottom-up” harassment, e.g., from personnel to managers). It could be that gendered access to informal power may not only facilitate perpetration but also affect the unfolding of sexual harassment outcomes. More theory and data are clearly needed to fully unpack this issue of power, investigating other bases of informal power (including race, age, and social class) to understand how they affect the sexual harassment process.

Another possible explanation for why hierarchical versus lateral sexual harassment are equally detrimental to mental health is that the latter is much more frequent. Specifically, of the respondents whose most bothersome incident involved sexual harassment, 75% had peer perpetrators, whereas 25% reported that faculty and administrators were their harassers. Students generally interact with each other on an individual basis much more often than they interact with members of the faculty or administration. In addition, some women may have feared that unwanted sexual attention from male peers could escalate to sexual coercion or assault (Holgate, 1989), especially given the very high rates of peer-perpetrated rape on college campuses (e.g., Boswell & Spade, 1999). All of these factors—peers’ informal power, contact frequency, and potential for sexual violence—could help explain why sexual harassment had negative consequences for women’s psychological well-being, regardless of the harasser’s formal institutional status.

Limitations

Although securely based on a very large and representative sample, our findings are not without their limitations. A return rate of 41% compares favorably to similar survey studies of college populations, but it may also yield unknown biases. Another shortcoming is that all of our measures were self-report and some lack long psychometric histories. Incorporating university records of students’ academic performance and counseling and health visits can strengthen future research in this domain.

We have proposed and evaluated a model that considerable theory supports, and previous longitudinal studies of sexual harassment in work settings (e.g., Glomb, Munson, Hulin, Berman, & Drasgow, 1999; Munson, Hulin, & Drasgow, 2000) provide strong evidence that our psychological and health outcomes follow, rather than precede, sexual harassment. Common parlance sometimes refers to analyses such as ours as “causal modeling,” but this is misleading; the cross-sectional nature of the data prevents definitive statements about causality. We acknowledge that alternate models might explain the relationships in these data as well as the one we tested. In fact, many relationships in the model are likely reciprocal. For example, disordered eating may result from psychological distress, but it also can contribute to distress. Furthermore, it makes sense that students may disengage from educational experiences as a consequence of dissatisfaction with those experiences, but disengagement also could serve to heighten dissatisfaction. Despite such possibilities, we believe that our model represents a reasonable, theoretically grounded “snapshot” of the process by which academic sexual harassment detracts from women’s psychological, physical, and academic well-being.

Conclusion

The current study demonstrates that sexual harassment remains a persistent problem in academia—a chronic stressor that profoundly and negatively affects the lives of college women. Our holistic, integrated model of the sexual harassment process illustrates the many paths by which harassment can undermine women’s well-being. Of importance, the psychological harms of harassment are no less when it originates from peers as opposed to those with formal institutional power. These findings speak to the need for more extensive and novel approaches to sexual harassment education, prevention, and proactive intervention. These efforts must take a comprehensive approach to be effective, addressing the many forms, sources, and outcomes of sexually harassing behavior and, on a larger level, the institutional and social structures that support it.
NOTES

1. In its most extreme and rare forms, sexual harassment can involve sexual coercion or assault, certainly qualifying as an acute stressor.

2. As noted above, women constitute the great majority of sexual harassment victims. In addition, men are considerably less threatened than women by behaviors that women find harassing, and men also identify behaviors as harassing that have not been identified for women (e.g., Berdahl, Magley, & Waldo, 1996; Gutek, 1985). Given such disparities, we chose not to include data from men in the current article to maintain a tight focus on sexual harassment from the unique perspective of women.

3. Other participants noted that their most bothersome experience of harassment was based on sexual orientation, race, and/or religion. To avoid confusing sexual harassment perpetrators with perpetrators of other types of abuse, we excluded these women from analyses of sexual-harassment-perpetrator status. (These were the only analyses of other types of abuse, we excluded these women from analyses of sexual-harassment-victim status.

4. Further results from the measurement model are available from the first author.

REFERENCES


Received January 25, 2005
Revision accepted August 17, 2005