

# The Impact of Sexual Harassment on Depressive Symptoms during the Early Occupational Career

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## Abstract

Sexual harassment has been theorized as a stressor with consequences for the physical and mental health of its targets. Although social scientists have documented a negative association between sexual harassment and mental health, few longitudinal studies have investigated the association between sexual harassment and depressive symptoms. Using longitudinal survey data from the Youth Development Study, combined with in-depth interviews, this article draws on Louise Fitzgerald's theoretical framework, stress theory, and the life course perspective to assess the impact of sexual harassment on depressive affect during the early occupational career. In support of Fitzgerald's model, the authors' findings confirm that sexual harassment is a stressor that is associated with increased depressive symptoms. Quantitative results show that women and men who experience more frequent sexual harassment at work have significantly higher levels of depressed mood than nonharassed workers, even after controlling for prior harassment and depressive symptoms. Moreover, the authors find evidence that sexual harassment early in the career has long-term effects on depressive symptoms in adulthood. Interviews with a subset of survey respondents point to a variety of coping strategies and reveal further links between harassment and other aspects of mental health, such as anger and self-doubt.

## Keywords

depressive symptoms, sexual harassment, work stress

Since Mackinnon's (1979) *Sexual Harassment of Working Women*, social scientists have conceptualized sexual harassment as a stressor detrimental to one's mental and physical health (Fitzgerald, Hulin, and Drasgow 1994). Harassment is associated with increased risk of anxiety, depression, and posttraumatic stress disorder as well as diminished self-esteem, self-confidence, and psychological well-being (for reviews, see Pryor and Fitzgerald 2003; Welsh 1999; Willness, Steel, and Lee 2007). Despite this evidence, questions remain regarding the association between sexual harassment and depressive symptoms across the early life course for men and women.

This study uses longitudinal survey and in-depth interview data from the Youth Development Study (YDS) to investigate the association between sexual harassment and depressive affect during the early occupational career. We offer four contributions.

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First, our study follows young people prospectively from their earliest work experiences to their adult jobs. This allows us to assess the long- and short-term implications of harassment experiences across the entire early occupational career. Second, our longitudinal design allows us to account for potential confounders identified in the literature, such as depressive symptoms prior to harassment. This analytic strategy increases confidence that the harassment–depressive symptoms relationship is not spurious. It also allows us to examine whether harassment affects feelings of depression only among subgroups of individuals who may be especially vulnerable to such workplace behavior because of their prior mental health or harassment history (Schneider, Swan, and Fitzgerald 1997). As we review in more detail below, we can also account for key antecedents and confounders of sexual harassment and mental health identified by stress theory and Fitzgerald’s integrated theoretical model of sexual harassment (e.g., Fitzgerald et al. 1994, 1997; Schneider et al. 1997).

Third, we examine whether sexual harassment affects depressive symptoms for *both* men and women. Prior research on the psychological consequences of sexual harassment is based primarily on women, but men are also at risk for workplace harassment (Waldo, Berdahl, and Fitzgerald 1998). Although men are less likely than women to label harassing behaviors as sexual harassment (Uggen and Blackstone 2004), men accounted for 16 percent of all sexual harassment charges filed with the U.S. Equal Employment Commission in 2009 (U.S. EEOC; 2010). On the basis of extant research, it is unclear whether sexual harassment is likely to lead both men and women targets to feel depressed.

Finally, we describe how these processes unfolded for some of our survey respondents through interviews with 33 YDS participants. Interviewees described the context of their experiences and their subjective reactions to sexual harassment. From the interview data, we are able to hear directly from respondents in their own words. Interviewees report elements of risk, coping, and resilience that are not directly measured in the survey. Our qualitative data are not representative of all survey respondents; instead, we interviewed a purposive sample of those who reported harassment in the survey to learn more about the context and consequences of their experiences. We thus draw from both survey and interview data to better understand the link between mental health and harassment.

## THEORETICAL BACKGROUND

Sexual harassment, defined as unwelcome sexual conduct that interferes with one’s job and creates a hostile work environment, can occur as either a single isolated incident or repeated incidents over time (Mackinnon 1979; Uggen and Blackstone 2004:65). Sexual harassment includes behaviors ranging from offensive materials in the workplace to sexual comments and inappropriate touching (Gruber 1990; Osman 2004). We consider sexual harassment to be a chronic stressor because it puts targeted workers under physical and mental stress in their day-to-day work activities. We ask four research questions about the relationship between sexual harassment and mental health across the early adult life course as they pertain to stress theory (Pearlin 1989).

### *Is Harassment Associated with Depressive Symptoms?*

According to stress theory (Pearlin 1989), group differences in mental health and well-being result from disparities in exposure to stressors and access to personal and social resources that allow individuals to cope with stressful experiences. Stressful experiences are expected to be particularly deleterious to mental health when they are chronic, negative, and unpredictable; are a threat to one’s identity; or signify a failure to achieve a desired goal (Avison and Turner 1988; Thoits 1991). Stress theory also predicts that some groups may be more vulnerable to stress than others, particularly if these groups lack the power or resources to cope with stressors (Kessler and McLeod 1984; Thoits 1995).

Louise Fitzgerald and her colleagues (Fitzgerald et al. 1994, 1997; Fitzgerald and Shullman 1993; Schneider et al. 1997) developed an integrated theoretical model that identifies the causes and consequences of workplace sexual harassment. The authors identify possible antecedents of sexual harassment, including individual (e.g., race, age, marital status, socioeconomic status) and workplace characteristics. They also theorize that sexual harassment is a stressor that can lead to work withdrawal, career instability, job dissatisfaction, and poor mental and physical health. This portion of the model, analogous to Pearlin’s (1989) general stress process model, posits that the frequency and severity of harassment are key predictors of mental health and

well-being and that personal vulnerability (i.e., gender, prior harassment, and prior mental health) moderates the association between harassment and negative outcomes.

Previous tests of Fitzgerald's model rely on cross-sectional data from adult women workers in single occupations (e.g., lawyers) or in particular organizations (e.g., university employees). However, because sexual harassment experiences vary by occupation (Richman et al. 1999), samples should include workers in a broad range of occupations. Harassment studies based on cross-sectional samples of adult workers may also miss previously targeted respondents who have withdrawn from the labor market (Coles 1986; Gutek and Koss 1993). Prior research is also limited because it does not include lagged measures of mental health. The inclusion of lagged standardized measures of depressive symptoms in the present study increases confidence that the relationship between harassment and mental health is not biased by stable differences across persons. Thus, our first research question simply asks, net of confounders, is the frequency and severity of sexual harassment in adulthood associated with increased depressive symptoms?

### *Is There a "Long Arm" of Early Career Harassment for Depressive Symptoms in Adulthood?*

An important unanswered question is whether harassment has long-term consequences for mental health and well-being. Although most harassment research has focused on adult workers, workplace sexual harassment is common in adolescence and young adulthood (Fineran 2002) in part because younger workers have little power in the workplace and are perceived as easier targets (Blackstone, Uggen, and McLaughlin 2009; Uggen and Blackstone 2004). As such, harassment in early life may have long-term implications for adult depressive symptoms.

Fitzgerald's integrated model does not fully explore the potential long-term effects of sexual harassment on adult mental health. Prior work merging stress theory with the life course perspective provides more insight into this relationship and identifies pathways by which early life stressors may affect later-life mental health (e.g., Elder, George, and Shanahan 1996; George 1999; Pearlin et al. 2005). We focus on three of

these pathways: (1) stress proliferation, (2) stability of depressive symptoms over time, and (3) depletion of resources.

One way that early life stressors can affect later mental health is through stress proliferation, which occurs when stressful experiences lead to additional stressors (Pearlin et al. 2005:210). Early life stressors can have long-term effects on mental health because stressful experiences at one point increase the risk of stressful experiences at a later point. There is evidence that sexual harassment proliferates across the life course. Early targets are more likely than nontargets to be targeted again later in life (Uggen and Blackstone 2004). As such, early-career sexual harassment may affect later-life depressive symptoms through subsequent experiences of sexual harassment.

Another pathway by which early sexual harassment could influence later-life depressive symptoms is through the stability of depressive symptoms. If sexual harassment heightens depressed mood among young workers, and if depressive symptoms are stable over time, then early targeting could contribute to poor long-term mental health, irrespective of harassment in adulthood. Poor mental health also increases the likelihood of exposure to social stressors (Turner and Turner 2005). Thus, early harassment could increase depressive symptoms, which could in turn increase the risk of later harassment and depressive symptoms in adulthood.

Finally, early-life sexual harassment may affect later-life depressive symptoms through diminished resources. Sexual harassment is associated with work withdrawal, job turnover, and career instability (Coles 1986; Gutek and Koss 1993), all of which can threaten adult socioeconomic status and increase depressive symptoms. Given this extant research and theory, we ask whether early-career sexual harassment is associated with depressive symptoms in adulthood. If so, is the association explained by (1) sexual harassment later in the career, (2) prior depressive symptoms, or (3) adult socioeconomic status and employment status?

### *The Vulnerability of Targets: For Whom Is Harassment Distressing?*

Fitzgerald's theoretical model, like stress theory, also suggests that the psychological impact of sexual harassment is conditioned in part by the

target's vulnerability to harassment. Some groups may be more vulnerable to the psychological impact of stressful experiences, especially if the stressors are chronic or if they have insufficient resources to buffer stressful life events and circumstances (Kessler and McLeod 1984; Thoits 1995). Drawing from the stress literature, several individual characteristics are expected to moderate the psychological impact of sexual harassment, including prior sexual harassment, prior mental health, and gender.

Fitzgerald's model suggests that those who were harassed before may react more negatively to harassment than first-time targets because past experience diminishes one's ability to cope (Fitzgerald et al. 1997). Similarly, stress theory and the life course perspective assume that stressful experiences create a generalized vulnerability to stress, so that stressors have stronger effects on mental health for those who experienced earlier life stressors (George 1999). Negative experiences at work may be especially deleterious to mental health if they occur repeatedly through the career, as the accumulation of workplace stressors may exert larger effects than a single isolated incident (Avison and Turner 1988). Yet past research does not consider prior harassment as a moderator of subsequent harassment effects on depressive symptoms.

Another oft-cited but rarely tested indicator of target vulnerability is prior mental health. Prior research suggests that sexual harassment is most deleterious to the mental health of those who are "particularly sensitive" to such behaviors, such as those with poor mental health (Schneider et al. 1997:403). We ask whether past harassment moderates the proximal association between harassment and depressive affect and whether the detrimental effects of harassment are exacerbated for those with a history of frequent depressive symptoms.

Gender is another potential indicator of target vulnerability. Although harassment is more prevalent among women, harassment rates of men are nontrivial (Uggen and Blackstone 2004), as nearly 20 percent of men in some studies report that they experienced sexual harassment (Pryor and Fitzgerald 2003:81). Similarly, the percentage of all EEOC sexual harassment claims filed by men rose from 11.6 percent in 1997 to 16 percent in 2009 (U.S. EEOC 2010), although the number of harassed men may be even higher (Waldo et al. 1998).<sup>1</sup>

Prior research on this topic focuses almost exclusively on the harassment and mental health

of women. But there are several reasons to expect gender differences in the effect of sexual harassment on mental health. Research on gender stratification shows that women are less likely than men to hold positions of power in the workplace (Smith 2002). Relative to men, women also receive fewer rewards for their work (Kilbourne et al. 1994; Reskin 2000) and are more likely to experience role strain when employed (Aneshensel and Pearlin 1987). Men's more privileged position in the workplace may shield them from the harassment's detrimental effects, whereas for women, the negative effects may reinforce their subordinate position in the workplace (Berdahl, Magley, and Waldo 1996). We thus consider whether the effect of harassment on depressive affect is greater for women than men.

### *How Do Targets Frame Their Experience? Insights from Interviews with Targets of Harassment*

This study also draws from qualitative interviews with targets of harassment to better understand their perceptions and how they cope with such potentially distressing events. A key tenet in the stress literature is that the effects of stressful experiences on mental health depend on an individual's coping resources and coping strategies (e.g., Lazarus 1993; Thoits 1995:60). Of particular importance to the coping process is how individuals appraise their stressful experiences (Lazarus 1993), which is illuminated in the qualitative interviews. Our qualitative data also allow us to use inductive reasoning to generate hypotheses about the nature of the relationship between sexual harassment and mental health. This multi-method approach offers a rare opportunity to understand not only *what* people experience when it comes to sexual harassment but also *how* some people experience it. What is the subjective experience of harassment among a subset of our survey respondents? That is, how do targets respond to and cope with their harassment experiences?

## METHOD

### *The YDS*

Data are drawn from the YDS, a prospective longitudinal study of 1,010 teenagers located in

a greater metropolitan area of approximately 3 million residents. The YDS began in 1988 with a randomly chosen community sample of ninth graders enrolled in the St. Paul Public School District in Minnesota. U.S. 1990 Census data indicate that this site is comparable to the nation as a whole with respect to per capita income, rates of unemployment and labor force participation, and the percentage of nonwhite residents (Mortimer 2003). The YDS panel was surveyed annually from grades 9 to 12. Yearly questionnaires, administered in school, included a large battery of items tapping early experiences in work, plans for the future, school performance, and adjustment. From 1992 to 2004, respondents completed up to 11 follow-up surveys indicating their mental health, achievement, job-related conditions, and harassment. By 2004, when most respondents were 30 to 31 years old, 73 percent of the initial participants had been retained ( $n = 735$ ). Although panel retention through the study is uncorrelated with numerous measures of socioeconomic background, achievement, and adjustment, women were more likely to be retained than men, and whites were more likely to be retained than nonwhites; youth who did not have an employed parent at the outset of the study also had greater attrition (see Staff and Mortimer 2007).

We used the ICE multiple imputation procedure in the Stata statistical package to regain respondents who were missing information on the predictor variables (Royston 2009). We imputed values into five data sets using all of the outcome and predictor variables in the imputation procedure. The ICE procedure uses tailored regression equations to calculate imputed values for continuous and categorical variables (Royston 2009). Following von Hippel (2007), we then deleted three cases that were originally missing data on the outcome variable. After imputation, our analysis sample included 732 respondents.

In addition to the survey data, we interviewed 33 of the YDS respondents. Participants were selected on the basis of their survey responses in 1999; we sent letters to 98 men and 86 women who reported experiencing some form of harassing behavior at work, inviting them to discuss their experiences in a one-on-one interview for which they would be paid \$40. Of those invited to participate, 28 men and 30 women expressed interest by returning a postcard and providing

a telephone number where they could be reached. We attempted to schedule interviews with all those who expressed interest, but we were not able to reach some respondents. In all, we completed interviews with 14 men and 19 women. We found little difference in the harassing behaviors and depressive mood of interview participants and those who were invited but did not participate. Of course, we have no way of knowing for certain that the qualitative findings would remain with a larger sample. We therefore caution against interpreting our qualitative findings as representative of the entire population of eligible interview participants.

## Measures

Our analyses include survey measures of workplace sexual harassment, depressive affect, educational attainment, job characteristics, and background characteristics. Table 1 provides descriptive statistics for all variables in the observed and imputed data sets.

**Sexual harassment.** Workplace sexual harassment is assessed by questions based on the Inventory of Sexual Harassment (Gruber 1992) and the Sexual Experiences Questionnaire (Gefland, Fitzgerald, and Drasgow 1995). In 2004, respondents (ages 30 to 31) were asked,

At any job you have held since July 2003, were you ever in a situation where a supervisor, co-worker/customer, or client: (1) stared or leered at you in a way that made you uncomfortable; (2) attempted to discuss sex; (3) displayed offensive pictures, posters, or other materials; (4) made repeated requests for drinks or dinner despite rejection; (5) made attempts to establish an unwanted sexual relationship with you; (6) told suggestive stories or made offensive remarks; (7) touched you in a way that made you uncomfortable; or (8) suggested that you cooperate with sexual behaviors in order to be well treated.

If respondents had experienced sexual harassment, they were also asked to report how often these sexual harassment incidents occurred (each item ranged from *zero* to *four or more times*). The sexual harassment items had highly skewed distributions. For instance, the percentage of workers who reported zero times to the

**Table 1.** Means, Standard Deviations, and Percentages for Observed and Imputed Data

Variable	Observed			Imputed		
	M or %	SD	n	M or %	SD	n
Depressive affect						
Ages 30-31	9.21	3.10	732	9.21	3.10	732
Ages 14-15	10.34	3.19	719	10.35	3.20	732
Harassment experiences (IRT scales)						
Ages 30-31	0.01	0.76	662	0.02	0.77	732
Ages 29-30	0.00	1.85	598	0.04	1.85	732
Ages 19-26	0.00	1.53	628	0.00	1.53	732
Ages 14-18	0.00	2.54	627	-0.04	2.48	732
Demographics						
Educational attainment (ages 30-31)	4.36	1.74	735	4.37	1.74	732
% Currently married or cohabiting (ages 30-31)	71		735	72		732
% Not currently employed (ages 30-31)	16		733	16		732
% Male (vs. female)	42		735	42		732
% White race (vs. nonwhite)	79		719	79		732
Standardized household income (ages 14-15)	0.17	0.93	709	0.16	0.94	732
Other workplace stressors						
Job stressors (age 28-29)	2.25	0.53	562	2.26	0.54	732

Note: IRT = item response theory.

harassment items ranged from 81 percent (for attempting to discuss sex) to 99.5 percent (suggesting cooperation with sexual behaviors to be well treated). Approximately 7 percent of respondents were not employed from 2003 to 2004 and thus did not report harassment experiences, and 59 percent of the employed respondents reported no harassment.

Since the frequency and severity of stressors are hypothesized to be important predictors of mental health and well-being (Fitzgerald et al. 1997; Loy and Stewart 1984), we used item response theory (IRT) scaling procedures (Hambleton and Swaminathan 1985; Osgood, McMorris, and Potenza 2002) to construct a measure of sexual harassment. This measure ranks individuals along a latent continuum of the construct of interest based on the observed response patterns of both the frequency and severity of harassment. Because the categorical harassment items were skewed, the intervals between response choices were unequal, and the behaviors ranged in seriousness, we created a harassment scale using the IRT scaling methods

available in Stata's Glamm program (Zheng and Rabe-Hesketh 2007).

Respondents were also asked questions regarding prior workplace sexual harassment experiences in 2003 (ages 29 to 30) and 1999 (ages 25 to 26). In both surveys, the items included (1) offensive jokes, remarks, or gossip about other men or women; (2) offensive jokes, remarks, or gossip directed at the respondent; (3) direct questioning about the respondent's private life; (4) staring or invasion of the respondent's personal space; (5) unwanted touching; (6) staring or leering at the respondent in a way that made him or her uncomfortable; and (7) pictures, posters, or other material that the respondent found offensive. In 2003, respondents were asked about harassment experiences in the past year, whereas in the 1999 survey, respondents were asked about sexual harassment during (1) any job during high school or (2) any job since high school. Using IRT scaling methods for categorical data, we created three additional measures of harassment experiences at ages 29 to 30, 19 to 26, and 14 to 18.

**Depressive affect.** Depressive affect is measured during ninth grade (1988; ages 14 to 15) and 16 years later (2004; ages 30 to 31). These measures are based on the General Well-being Scale of the Current Health Insurance Study Mental Health Battery (see Ware et al. 1979). In both surveys, respondents were asked four items: (1) "Have you felt depressed?" (2) "Have you been in low or very low spirits?" (3) "Have you felt downhearted and blue?" and (4) "Have you been under any strain, stress, or pressure?" Responses to the four items ranged on a five-point scale from *none of the time* to *all of the time*. Although not shown, measures of depressive affect (in adolescence and adulthood) are significantly correlated ( $r = .196, p < .001$ ).

**Work stressors.** The measure of work stressors is a summary composite of eight items ( $\alpha = .65$ ) that indicate time pressure; exposure to excessive heat, cold, or noise; work overload; and a lack of clarity in job responsibilities (see Mortimer, Harley, and Staff 2002). As Fitzgerald (1994:61) insists, "if none of the quotidian work stressors are represented in the models, then estimates of the effects of one particular stressor (in this case, sexual harassment) will be biased because of model misspecification." However, unlike our harassment measures, the work stress variables were asked of employed respondents only during the wave 13 survey (ages 28 to 29), two years prior to the depressive symptoms outcome. Job stress items were imputed for respondents who were not working at ages 28 to 29.

**Control variables.** We include a number of control variables relevant to both Fitzgerald's integrated model and Pearlin's stress model that are correlated with sexual harassment and depressive symptoms. Educational attainment indicates the respondent's highest academic degree attained by ages 30 to 31. The responses ranged from 1 (elementary or junior high school) to 8 (PhD or professional degree), with the average corresponding to some college. We also include a measure of current work status at ages 30 to 31. Approximately 16 percent of respondents were not employed at ages 30 to 31. Union formation indicates whether the respondent was currently married or cohabiting in an intimate relationship (approximately 71 percent of respondents at ages 30 to 31). Analyses include controls for gender (1 = *male*, 0 = *female*), race (1 = *white*, 0 = *non-white*), and a standardized base year parental

report of total household income (13-point scale ranging from *under \$5,000* to *\$100,000 or more*). Approximately 58 percent of the analysis sample are female and 79 percent of the sample are white.

**Qualitative interviews.** In conducting the interviews, our goal was to learn about the context of participants' experiences and their ideas about sexual harassment more generally. As is common in qualitative interviewing (Esterberg 2002), we asked our interview participants to describe their experiences in their own words and did not provide specific response categories. Instead, we asked them to tell us about the experiences they felt were most important to share, given their knowledge of our interests in sexual harassment, problems in the workplace, and workplace sexuality.

To analyze the in-depth interview data, we first tape-recorded and transcribed each of the interviews. The transcripts, ranging from 20 to 60 pages each, were then imported into the NVivo qualitative analysis program. NVivo is designed to assist researchers with organizing, managing, interpreting, and analyzing non-numerical, qualitative data. Each transcript was closely reviewed in a search for common themes across interviews and like categories of data. Similar passages were coded together and these passages or "meaning units" (Weiss 2004) were then labeled and given a name intended to succinctly portray distinct themes. For this article, we focus on passages from the interviews that address how respondents cope with harassment. The interview excerpts we include were chosen because they represent patterns across the interviews. We use pseudonyms to maintain the confidentiality of interview participants and, in some cases, have changed minor but potentially identifying details (e.g., company names and locations)

## RESULTS

In Table 2, we display unstandardized ordinary least squares coefficients indicating the effect of workplace sexual harassment on depressive affect at ages 30 to 31. In all of our analyses, we used the *mim* command in Stata (Royston, Carlin, and White 2009) to combine estimates for the imputed data sets and adjust standard errors according to Rubin's (1987) rules. As shown in Table 2, sexual harassment in the most recent year is positively

**Table 2.** Unstandardized Ordinary Least Squares Coefficients for the Effect of Sexual Harassment on Depressive Affect in Adulthood (Ages 30-31)

Predictor Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Harassment experiences (IRT scales)						
Age 30-31	0.673*** (0.143)				0.512** (0.162)	0.395* (0.174)
Age 29-30		0.217*** (0.062)			0.118 (0.069)	0.084 (0.067)
Age 19-26			0.202* (0.078)		0.134 (0.092)	0.121 (0.088)
Age 14-18				0.046 (0.049)	-0.036 (0.056)	-0.035 (0.053)
Educational attainment (ages 30-31)	-0.161* (0.065)	-0.154* (0.066)	-0.167* (0.066)	-0.158* (0.066)	-0.165* (0.065)	-0.180** (0.065)
Currently married or cohabiting (ages 30-31)	-0.808*** (0.240)	-0.870*** (0.241)	-0.875*** (0.243)	-0.900*** (0.243)	-0.799*** (0.240)	-0.763*** (0.237)
Not currently employed (ages 30-31)	0.895** (0.304)	0.948** (0.306)	1.017*** (0.304)	1.024*** (0.307)	0.885** (0.306)	0.859** (0.308)
White race (vs. nonwhite)	-0.553* (0.275)	-0.575* (0.277)	-0.598* (0.277)	-0.626* (0.279)	-0.525 (0.273)	-0.502 (0.274)
Standardized household income (ages 14-15)	-0.071 (0.125)	-0.059 (0.127)	-0.045 (0.126)	-0.045 (0.127)	-0.071 (0.125)	-0.053 (0.123)
Depressive affect (ages 14-15)	0.143*** (0.036)	0.159*** (0.035)	0.161*** (0.036)	0.168*** (0.036)	0.139*** (0.036)	0.120*** (0.035)
Male (vs. female)	-0.603** (0.227)	-0.615** (0.228)	-0.554* (0.229)	-0.594* (0.230)	-0.588* (0.228)	-0.822*** (0.228)
Job stressors (ages 28-29)						1.071 (0.305)
Intercept	9.555*** (0.586)	9.421*** (0.585)	9.452*** (0.584)	9.398*** (0.591)	9.582*** (0.582)	7.485*** (0.874)
Adjusted R <sup>2</sup> (ranging across the five data sets)	.119-.123	.109-.113	.101-.107	.092-.098	.122-.129	.141-.172

Note:  $N = 732$ . Standard errors in parentheses. IRT = item response theory.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

associated with adult depressive affect, even after controlling for prior depressive affect and other controls (model 1). Prior harassment at ages 29 to 30 (model 2) and ages 19 to 26 (model 3) likewise have statistically significant independent effects on depressive symptoms, net of earlier depressed mood and controls. Adolescent harassment (ages 14 to 18) had no significant effect on depressed mood at ages 30 to 31. Thus, prior harassment has a potent lagged effect, even after several years, and current harassment has detrimental effects even when prior harassment is taken into account (model 5). However, when prior and adult harassment measures are included in the same model, the effects of prior harassment

at ages 29 to 30 and 18 to 26 are reduced to statistical nonsignificance. Thus, more recent measures of harassment fully explain the effect of prior harassment on adult depressive symptoms. Given that early harassment is predictive of later harassment (see appendix), these findings suggest that the effects of early career harassment on depressive symptoms operate through later career harassment. In additional analyses (not shown), we find that depressive symptoms measured concurrently with prior harassment (e.g., depressive symptoms at ages 29 to 30 and harassment at ages 29 to 30) do not fully explain the relationship between earlier career harassment and adult depressive symptoms. These results suggest that



early career harassment affects adult depressive symptoms through stress proliferation.

In model 6, we included job stressors as an additional control. Sexual harassment remains associated with depressive affect, net of job stressors at ages 28 to 29 and background factors.<sup>2</sup> Females and nonwhites report higher levels of depressive affect than males and whites. Not working at ages 30 to 31 also predicts higher levels of depressed mood. In addition, consistent with the stress literature, there is notable variation in depressive affect depending on adult family roles and educational attainment. For instance, in all of our model specifications, married or cohabiting individuals have lower levels of depressive affect than individuals who are unmarried or not cohabiting. Educational attainment is negatively associated with depressive affect.

Since exposure to harassment may be a function of these and other key life circumstances, we examined how education, relationship status, prior harassment, and other background variables influenced sexual harassment at ages 30 to 31. The appendix shows estimates for a Tobit model predicting sexual harassment at ages 30 to 31. Tobit regression models are especially useful when predicting IRT transformed scores because they appropriately handle “censored” cases (i.e., the 59 percent of respondents who did not report harassment at ages 30 to 31). As shown in the appendix, prior harassment at ages 29 to 30 and 18 to 26 is positively related to harassment at ages 30 to 31. Depressive affect in adolescence, but not harassment, is also positively associated with harassment at ages 30 to 31. Respondents who are married or cohabiting are less likely to be harassed.

Next, to examine whether prior harassment, prior depressive affect, gender, job stress, and educational attainment condition the effect of sexual harassment on depressive symptoms, Table 3 shows results for a series of models that interact recent workplace sexual harassment with prior harassment (models 1 to 3), prior depressive affect (model 4), gender (model 5), job stress (model 6), and educational attainment (model 7). Overall, the interaction coefficients show little evidence of conditional effects. Even though prior harassment and depressive affect influence depressive symptoms in adulthood, the results show that recent sexual harassment is not especially detrimental for those who experienced prior harassment or for those who were depressed. Furthermore, although females report higher levels of depressive affect

than males, we did not find that the consequences of sexual harassment for depressive symptoms were significantly more detrimental for women than for men. We also found little evidence that educational attainment or prior job stress mitigated or intensified the impact of harassment.

In analyses not shown, we conducted sensitivity tests to ensure that our results were not influenced by how we measured sexual harassment or depressive symptoms. For instance, the removal of items that may not necessarily indicate sexual harassment, such as “direct questioning of private life,” from the harassment measure did not affect the pattern of findings. In addition, since 79 percent of respondents had experiences that matched the items on the harassment scale at ages 30 to 31 but did not classify the acts as sexual harassment, we included a dummy variable indicating whether respondents considered any of the experiences sexual harassment. This variable did not change the effect of harassment on depressive affect, nor did it have a significant main effect on depressive affect. Finally, we removed an item from our outcome measure (i.e., “Have you been under any strain, stress, or pressure?”) that may be confounded with prior stressors, but omitting this item again did not affect the pattern of findings.

In supplemental analyses (not shown), we also considered additional moderators of the relationship between harassment and mental health. These included the status of the perpetrator (supervisor vs. coworker), the gender of the perpetrator, and the sexual orientation of the respondent. None of the moderating effects was statistically significant for women or men.

## Interview Results

We now turn to interview data to examine respondents’ own descriptions of harassment and its aftermath. Three patterns emerged from our analysis of the qualitative data, characterized by mixed feelings, self-doubt, and anger. Participants who expressed mixed feelings were upset by the harassment they experienced, but they also felt strongly about wanting to keep their jobs, even in the face of ongoing harassment. Others questioned, doubted, or even blamed themselves for the harassment they experienced. Another group of interview participants placed blame more directly on their harassers and felt angry.

**Table 3.** Unstandardized Ordinary Least Squares Coefficients for Potential Moderators of the Effects of Recent Harassment on Depressive Affect in Adulthood (Ages 30-31)

Potential Moderating Factor	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Harassment (ages 30-31) × Harassment (ages 29-30)	-0.051 (0.075)						
Harassment (ages 30-31) × Harassment (ages 19-26)		-0.070 (0.106)					
Harassment (ages 30-31) × Harassment (ages 14-18)			-0.032 (0.053)				
Harassment (ages 30-31) × Depressive Affect (ages 14-15)				-0.011 (0.048)			
Harassment (ages 30-31) × Male					0.177 (0.324)		
Harassment (ages 30-31) × Educational Attainment (ages 30-31)						-0.122 (0.087)	
Harassment (ages 30-31) × Job Stressors (ages 28-29)							-0.326 (0.299)
Harassment experiences (IRT scales)							
Ages 30-31	0.433* (0.184)	0.422* (0.183)	0.410* (0.174)	0.514 (0.558)	0.333 (0.219)	0.920* (0.424)	1.167 (0.755)
Ages 29-30	0.091 (0.067)	0.085 (0.066)	0.085 (0.067)	0.083 (0.066)	0.086 (0.067)	0.086 (0.067)	0.087 (0.067)
Ages 19-26	0.119 (0.088)	0.122 (0.088)	0.118 (0.088)	0.122 (0.088)	0.123 (0.088)	0.129 (0.088)	0.116 (0.089)
Ages 14-18	-0.034 (0.054)	-0.035 (0.053)	-0.030 (0.054)	-0.035 (0.053)	-0.036 (0.053)	-0.037 (0.053)	-0.033 (0.054)
Educational attainment (ages 30-31)	-0.180** (0.065)	-0.178** (0.065)	-0.181** (0.065)	-0.181** (0.065)	-0.179** (0.065)	-0.181** (0.065)	-0.183** (0.065)
Currently married or cohabiting (ages 30-31)	-0.759*** (0.237)	-0.761*** (0.237)	-0.757*** (0.237)	-0.761*** (0.237)	-0.755** (0.238)	-0.780*** (0.237)	-0.761*** (0.237)

(continued)

**Table 3. (continued)**

Potential Moderating Factor	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Not currently employed (ages 30-31)	0.856** (0.309)	0.859** (0.309)	0.846** (0.309)	0.856** (0.308)	0.864** (0.309)	0.889** (0.306)	0.852** (0.312)
White race (vs. nonwhite)	-0.497 (0.275)	-0.503 (0.275)	-0.502 (0.274)	-0.504 (0.276)	-0.503 (0.275)	-0.463 (0.274)	-0.496 (0.276)
Standardized household income (ages 14-15)	-0.055 (0.123)	-0.052 (0.123)	-0.050 (0.123)	-0.054 (0.123)	-0.057 (0.123)	-0.046 (0.123)	-0.052 (0.124)
Depressive affect (ages 14-15)	0.120*** (0.035)	0.120*** (0.035)	0.120*** (0.035)	0.120*** (0.036)	0.118*** (0.035)	0.116*** (0.035)	0.120*** (0.035)
Male (vs. female)	-0.826*** (0.228)	-0.830*** (0.228)	-0.825*** (0.228)	-0.818*** (0.229)	-0.826*** (0.228)	-0.828*** (0.228)	-0.829*** (0.228)
Job stressors (ages 28-29)	1.076** (0.308)	1.066** (0.307)	1.071** (0.306)	1.071** (0.306)	1.073** (0.308)	1.061** (0.304)	1.100** (0.303)
Intercept	7.494*** (0.881)	7.500*** (0.880)	7.496*** (0.871)	7.485*** (0.876)	7.491*** (0.876)	7.521*** (0.878)	7.449*** (0.874)
Adjusted R <sup>2</sup> (ranging across the five data sets)	.141-.172	.140-.173	.140-.172	.140-.171	.140-.171	.143-.165	.143-.164

Note: N = 732. Standard errors in parentheses. IRT = item response theory.

\*p < .05. \*\*p < .01. \*\*\*p < .001.

Cam had mixed feelings after he was groped by a female client in a company vehicle. Cam was visibly upset during the interview and revealed that he had never told anyone about his harassment before. He felt conflicted about whether he should tell anyone, saying, "I don't know if it's right or wrong to tell someone." After his experience, Cam said he has become more suspicious of people in his interactions. "I feel that I need to be careful," Cam said. "I need to look at people, and just to be conscious that there's bad people and good people out there and you don't know who you're going to run into."

Marie and Erin also described mixed feelings, as they were unhappy with the ongoing harassment they experienced but "put up with it" to keep their jobs. Marie, who reported verbal harassment on her survey items, struggled with the stress caused by the verbal "come-ons" of male coworkers in her most recent job in the construction industry:

Sometimes guys would just stare at you. And that is annoying. They say things like "hey honey" or something and sometimes that just gets annoying. It was very common because I was working out in the field outside with the guys every day. What's really hard is the fact that you still need to be in a working relationship with these people if you expect to keep the job. If you wanted to leave, sure you could file a claim or do whatever, but if you want to stay at the job, some [of] it I guess to a certain extent you kind of feel like you have to put up with.

As with Marie, Erin noted many things she enjoyed about her job as a school custodian (e.g., friends at work, autonomy), which strengthened her resolve to keep her job even though a coworker regularly sexually harassed her. Erin was on medical leave at the time of her interview, receiving just two thirds of her regular salary, because her harasser had injured her after coming up from behind her and picking her up. Erin describes the strain she felt in this situation:

I only make enough to cover exactly what is here [pointing around apartment]. And I have no money left over. For me to lose some money, I'm probably gonna have to rob Peter to pay Paul, you know what I mean? Or go get Grandpa and say, "Hey, borrow me some money," and then cover this dough with that dough.

Erin, whose survey results indicate she experienced verbal and physical harassment, said that in the end she did not believe her experience would have a lasting impact. In Erin's words, "I was mad about it but it really doesn't affect me much. I mean, I'm over it. It happened; I got over it."

For other interviewees, the impact was more lasting. These participants described the self-doubt they felt after being harassed, even blaming themselves in some cases. This was most common among interviewees who worked in environments that were otherwise friendly, where coworkers mingled and got along well. Pam says she "felt some responsibility" for not rejecting a coworker's advances more assertively when working at a local diner. But, she explains, "the atmosphere there was so much like a family. Most people just got along. That may be one of the reasons why I never put up a fuss about it. I definitely feel now that I should have taken more responsibility, on my part, for things that were said."

Liz, who worked at a communications firm, also blamed herself. Liz said, "I lost so much of my self-esteem by working there because I always felt like 'there's something wrong with me.'" Rather than blame her harassers, Liz said, "I so much felt like it was just me and that I had a really big problem getting along with other people." Self-blame was common among the interviewees. Some blamed themselves for interpreting as harassment conduct that others saw as unproblematic. These participants experienced stress not only from harassment but also from the knowledge that their perceptions differed from those of at least some of their coworkers.

Not all interviewees blamed themselves or had mixed feelings. Some felt angry—at their own harassers and sometimes at harassers in general. While working as a prison guard, Jerry described the anger he felt after a male harasser grabbed him inappropriately in the hallway. "I freaked," he said.

I'm like, "You don't do that, you just don't do that." One, this is the workplace, and two, you don't know me, you don't know anything about me, you don't do that. Well I freaked out and my friends were on me. They were joking with me, and I was more mad just because he did it, not because it was like embarrassing. You just don't do that.

Jerry's harasser was later fired for his actions.

Bethany says that the offensive remarks about her body she endured as a teenage fast food worker have made her "a lot less tolerant" of harassment today, making her "more angry that they think they can just do that." Rachel, whose coworker at a restaurant once "came from behind" and "grabbed" and "rubbed up against" her, says she would respond the same way today: She reported her harasser and emphatically stated that she would do the same if it happened again. Rachel did not blame herself or wish she had interpreted her experiences differently. Instead, she and other interview participants directed their anger toward harassers, toward employers who responded poorly, and toward harassment more generally.

Whether respondents described mixed feelings, self-doubt, or anger, the theme of resilience resonated throughout the interviews. Even those who felt some negative psychological impact were determined that the impact not be lasting. Their descriptions of their experiences indicate that although sexual harassment may have a negative psychological impact for some, its effects may be tempered by workers' determination to overcome such negative experiences. Holly, who was groped by a client at a company event, summarized the impact of her experience in a way similar to many of our interview participants. Holly said, "I've never been one to let my emotions control my life or make this [a] life changing [experience]. It is not a good thing and I don't think it should happen to anybody and I'm not belittling the situation but that's my personality." As with other respondents, Holly describes herself as someone who will not and does not define herself on the basis of her harassment experiences. Instead, Holly and our other interview participants focused on getting through the negative experiences and overcoming them in the long term.

Like Holly, Dan described the difficulties of dealing with verbal harassment from his coworkers at his post office job and also exhibited resilience. Although he did not report the harassment, Dan said that his experience made interactions at work difficult and uncomfortable. In the long run, he said he has grown from the experience. Dan said, "I think that it's affected me in a way that I can look at it and take with me a positive attitude that I don't work there anymore. But no, me personally, I don't think that it's affected me at all." Dan, whose experience made him realize he did not want to work in the post office for

the rest of his life, reported being much less tolerant of harassment today because he is "more mature," and he "would be able to approach it and actually bring it up and say, 'Okay, this is happening and I think it's offensive.'" According to Dan, he will no longer allow harassment to affect his life.

Although resiliency was a theme in our interviews, we also see similarities more consistent with findings from the survey data: Many of the men we interviewed, like the women, are emotionally affected by their experiences with sexual harassment.

## DISCUSSION

A fundamental question in sexual harassment research is whether harassment has a real and sustained impact on mental health or whether its effects are trivial or ephemeral (Schneider et al. 1997). Our results support the former position. Consistent with stress research, our quantitative analyses indicate that harassment is a stressor that has a positive and linear relationship with depressive affect for *both* men and women, even after controlling for past depressive symptoms, harassment experiences, and other workplace stressors. Importantly, we also find evidence that harassment early in the career has long-term effects on depressive symptoms in adulthood, in part because of stress proliferation. Our interviews suggest that harassed workers feel annoyed, angry, and conflicted, often leading to self-blame and self-doubt.

The stress literature has long noted the lasting psychological impact of stressful events or circumstances (Pearlin 1989), especially when stressors are chronic, unpredictable, or threatening to one's identity or life goals (Avison and Turner 1988; Thoits 1991). We find similar patterns among targets of sexual harassment. Our quantitative data showed that the effects of harassment are indeed lasting, as harassment experiences early in the career were associated with heightened depressive symptoms nearly 10 years later.

The study findings suggest that stress proliferation—not the stability of depressive symptoms or diminished socioeconomic attainment—is the mechanism that links early career harassment to later-life depressive symptoms. That is, early targets of harassment experience heightened emotional distress later in their career in part because their early harassment experiences increase their

risk of being targets of harassment throughout their career. However, harassment may also lead to stress in other domains, such as family conflict or negative stressful life events. Future research should further explore processes of stress proliferation among targets of workplace harassment to understand the full emotional cost of workplace sexual harassment.

Although stress theory's differential-vulnerability hypothesis posits that stressful experiences' impact on mental health and well-being may vary across groups, we find little evidence that prior depressive symptoms, harassment, or gender condition or moderate sexual harassment's effects on depressive symptoms. This is consistent with other work finding little support for a differential-vulnerability hypothesis (Kessler and McLeod 1984; Turner, Wheaton, and Lloyd 1995).

Although our longitudinal survey measures of harassment and mental health represent an improvement compared to past research, these measures may still fail to capture important aspects of target vulnerability, such as coping resources and strategies (Fitzgerald et al. 1997). Our interviews tap a broader range of attitudes and attributes and suggest that preexisting individual differences may shape reactions to harassment. Among interviewees, resiliency emerged as a theme for both women and men. For instance, Holly asserted that her positive outlook helped her overcome her harassment experiences, suggesting that differences in individual resilience and coping resources may moderate the impact of harassment on mental health. It is possible that respondents may be less resilient when harassment is more frequent and pervasive, which, as we show in the quantitative analyses, is associated with diminished mental health.

Our qualitative interviews also suggest that harassment may affect dimensions of mental health other than depressive symptoms. Our qualitative analysis shows that harassment led to feelings of anger, self-blame, and self-doubt. Research suggests the importance of anger as a dimension of mental health and emotionality (Schieman 1999), but no research to our knowledge has considered how harassment, a common workplace stressor, influences feelings of anger. Moreover, if harassment is associated with self-doubt and self-blame, then harassment may diminish coping resources, such as self-esteem and mastery.

Finally, our qualitative interviews also raise questions about the role that organizational context

may play in shaping how targets emotionally respond to and cope with harassment. The women who were interviewed seem to have reacted more negatively to harassment when it occurred in a work environment they had once considered safe or when it occurred in an all-male environment. For instance, Marie received very little support from coworkers when she was harassed on a construction site in an all-male environment, an experience in sharp contrast with that of Erin, whose autonomy and friends at work helped her cope with her harassment experience. Although we lacked detailed measures of organizational context in our quantitative analysis to assess whether they conditioned or mediated the harassment-distress relationship, future research should examine how workplace characteristics, such as the gender context of the workplace, may moderate the psychological impact of sexual harassment.

Although our mixed-methods approach provides evidence that harassment is a distressing experience for targets, we remain cautious in interpreting our findings as causal associations between stressors and poor mental health. We account for many potential confounders, but we cannot rule out spuriousness resulting from unobserved characteristics that might influence depressive affect and harassment experiences. Second, we are unable to draw strong conclusions about gender differences in the effect of harassment on mental health, because our study uses only a single outcome measure of mental health (depressive symptoms). This may be especially problematic because the effects of stress on mental health in women are more likely to manifest as depression, whereas the effects of stress on mental health in men are more likely to manifest as substance abuse (Aneshensel, Rutter, and Lachenbruch 1991). Thus, we are surprised not to have found a gender interaction in our study, because the effects of harassment on mental health should be more likely to manifest as depressive symptoms for women. Future research should use multiple measures of mental health (such as depressive symptoms and alcoholism) to draw conclusions about sex and gender differences in the association between harassment and mental health. We also have limitations in our quantitative and qualitative samples that may hinder the generalizability of our findings. Finally, our measure of sexual harassment is based on targets' perceptions (rather than an objective measure), which may bias the findings of our study.

In conclusion, whereas research on the mental health effects of sexual harassment were once criticized as “junk science” (McDonald and Lees-Haley 1995), a growing body of high-quality research has consistently shown negative effects of workplace harassment on mental health. Our study adds to this literature and the stress literature more generally by showing that sexual harassment influences depressive symptoms in both women and men, irrespective of whether they had previously experienced harassment or were already distressed. Future research should continue to investigate how personal attributes, resources, and organizational contexts shape target vulnerability and the relationship between harassment and mental health. Such work is critical to elucidating the pathways by which sexual harassment affects the lives of women and men across the occupational career.

## APPENDIX

Estimates for a Tobit Model Predicting Sexual Harassment at Ages 30 to 31

Predictor Variable	Estimate (Standard Error)
Harassment experiences (IRT scales)	
Ages 29-30	0.323*** (0.045)
Ages 19-26	0.186*** (0.047)
Ages 14-18	0.012 (0.028)
Educational attainment (ages 30-31)	-0.014 (0.037)
Currently married or cohabiting (ages 30-31)	-0.280* (0.130)
White race (vs. nonwhite)	-0.162 (0.167)
Standardized household income (ages 14-15)	0.044 (0.072)
Depressive affect (ages 14-15)	0.059** (0.021)
Male (vs. female)	-0.027 (0.131)
Intercept	-1.004** (0.363)

Note:  $N = 732$ . Standard errors in parentheses. IRT = item response theory.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

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## NOTES

1. Although both men and women are targets of harassment, sexual harassment is overwhelmingly perpetrated by men. Most sexual harassment against men is by other men (Berdahl, Magley, and Waldo 1996; Welsh 1999). Little research examines sexual harassment among men, but some research suggests that men who are targets of harassment may be targeted because of their sexuality or performance of masculinity (Berdahl et al. 1996; Waldo, Berdahl, and Fitzgerald 1998; Welsh 1999).
2. Results were the same when nonworkers at ages 28 to 29 were excluded from the analyses.

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