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# A META-ANALYSIS OF THE ANTECEDENTS AND CONSEQUENCES OF WORKPLACE SEXUAL HARASSMENT

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Sexual harassment (SH) has been identified as one of the most damaging and ubiquitous barriers to career success and satisfaction for women. This study meta-analyzed data from 41 studies, with a total sample size of nearly 70,000 respondents, to examine several negative consequences of workplace SH as well as how situational factors may play a role in facilitating these occurrences. SH experiences are associated with negative outcomes such as decreased job satisfaction, lower organizational commitment, withdrawing from work, ill physical and mental health, and even symptoms of post-traumatic stress disorder. In addition, organizational climate for SH figured prominently in facilitating these occurrences.

Sexual harassment (SH) has been identified as one of the most damaging barriers to career success and satisfaction for women (Fitzgerald et al., 1988). Lengnick-Hall (1995) outlines a litany of potential costs to the organization, including legal fees resulting from litigation, unwanted publicity, negative effects on recruitment of new employees and retention of existing workforce, lower productivity, increased absenteeism, and increased sick leave costs. The U.S. Equal Employment Opportunity Commission

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(E.E.O.C.) recently reported that they received and resolved nearly 14,000 charges of sexual harassment, at a cost of over $37 million in monetary benefits over and above litigation (E.E.O.C., 2005). SH is therefore also an arguably common occurrence, with most American estimates indicating that 40–75% of women and 13–31% of men experience some form of SH in the workplace (e.g., Aggarwal & Gupta, 2000; United States Merit System Protection Board (USMSPB), 1988). Researchers have demonstrated that serious negative consequences of SH are evident in any socioeconomic group, at any level of education, and across cultures and countries, age groups, and vocations (e.g., Antecol & Cobb-Clark, 2003; Barak, 1997; Gelfand, Fitzgerald, & Drasgow, 1995). Some researchers conclude that the experience of SH may indeed be universal (Gruber, 2003).

Given that SH is a prevalent and costly occurrence in the workplace, it is fortunate that our understanding of this phenomenon has been greatly enhanced by the increasing amount of research conducted in the last 2 decades. Studies on the antecedents and consequences of SH have been widely conducted. However, to further advance the study of SH, we have conducted a meta-analytic summary. Meta-analysis provides several contributions and advantages incremental to qualitative reviews (Hunt, 1997; Hunter & Schmidt, 1990). To begin with, it can convert most statistical results into a common metric, which can then be aggregated to provide a more accurate depiction of SH than any single study. Such precise knowledge of the effects of SH should help to emphasize its seriousness. For example, this information can be used as indication of harm for court cases (i.e., civil damages), and it is our intent that the results of this analysis could be employed in similarly helpful ways toward addressing workplace SH.

Second, meta-analysis can control for sampling error effects, which add substantial variability to the results (except for extremely large studies). For example, correlations between organizational climate and SH range from small (Hesson-McInnis & Fitzgerald, 1997) to large (Glomb, Munson, Hulin, Bergman, & Drasgow, 1999), and similar variation occurs for the relationship of SH to several other variables (e.g., work or life satisfaction, physical health). Meta-analysis can help explain such inconsistency by determining how much of this variation is due to chance alone (i.e., sampling error). Third, meta-analysis can provide a way of accounting for residual variance (i.e., the variability in results remaining after we have controlled for sampling error). For example, a meta-analytic moderator search can determine which policies, treatments, and interventions best reduce SH prevalence (focusing on antecedents) or reduce its harm (focusing on consequences). Presently, though, there is an insufficient research base to pursue this type of moderator search; however, it would arguably be invaluable to have an accurate control group or baseline against which to make future comparisons, and this is a benefit that

meta-analysis can now provide. For example, researchers and practitioners may use the meta-analytic summary of the relationship between SH and mental health to evaluate whether specific organizational policies or treatments significantly reduce (i.e., moderate) the typical deleterious consequences of SH. Similarly, a meta-analysis is not only useful for summarizing findings in currently studied areas, but it also serves to highlight areas requiring further research. This should help channel future SH researchers in allocating their resources toward nonredundant topics, and many such issues are identified throughout the current investigation.

On a broader perspective, a meta-analytic summary of SH more easily permits comparisons with other forms of workplace abuse and may serve to bridge related literatures. For example, there is a considerable literature already on workplace bullying (Daus, 2004; Fox & Stallworth, 2005; Salin, 2004) and other forms of interpersonal mistreatment (e.g., Lim & Cortina, 2005). If SH is shown to share similar *aspects* (e.g., aetiologies, effects) with those found in these sister literatures, it allows for considerable cross-utilization of findings, potentially benefiting all related fields. Some researchers have suggested that there are many common aspects shared between SH and nonsexualized workplace mistreatment (e.g., Lapierre, Spector, & Leck, 2005), yet these literatures have remained largely distinct. Indeed, Lim and Cortina (2005) recently found that women rarely experienced sexual harassment in isolation (between 1% and 3%) but instead reported experiencing both sexual harassment and general nonsexualized mistreatment or incivility (22%). They concluded that sexual harassment occurs in an environment of general mistreatment in the workplace; as such, the current study may provide insight into the antecedents and consequences of many forms of workplace incivility, as it appears likely that SH victims may have also been mistreated in other ways.

Given these advantages of meta-analytic summary, there have been three meta-analyses conducted on the SH literature to date. It is important to note that these past summaries (Ilies, Hauserman, Schwochau, & Stibal, 2003; Lapierre et al., 2005; Rotundo, Nguyen, & Sackett, 2001), despite using the same methodology and addressing the same broad topic of SH, provide much different contributions. First, Rotundo et al. (2001) conducted a meta-analysis that addressed the observed gender differences in perceptions of sociosexual behaviors (i.e., examining which behaviors might be interpreted as harassing or not). Conversely, our investigation focuses on direct SH experiences rather than perceptions of third-party incidents and thus contributes incrementally to the findings just described. In addition, Ilies et al. (2003) meta-analyzed the incidence rates of SH and found that incidence rates of SH were higher when studies used the "behavioral experiences" approach (58% of women) versus a direct query method (24% of women), when the organization had larger power

differentials between hierarchical levels and when researchers studied convenience samples (relative to using probability-sampling methods). Again, our meta-analysis contributes incrementally to the literature by examining specific antecedent and outcome variables, rather than prevalence rates.

Continuing, Lapierre et al. (2005) compared the effects of sexual versus nonsexual workplace aggression on job satisfaction, and although their study does examine one outcome common to our meta-analysis (i.e., job satisfaction), these authors argued that further research is needed beyond the single outcome of job satisfaction and focusing on aspects such as physical symptoms or emotional reactions. Our study addresses this call, and, as will be discussed, we examine a total of 12 consequences and two antecedent variables in relation to workplace SH in this investigation. Moreover, we have retained the distinct and important dimensions of satisfaction with supervisors, coworkers, and work itself (see Ironson, Smith, Brannick, Gibson, & Paul, 1989), as well as a global job satisfaction indicator, and analyzed each separately in relation to SH. All three of the preceding meta-analyses make important contributions to the SH literature, and our research complements these studies by examining different issues and contributing incrementally to the understanding of this phenomenon.

In summary, this meta-analysis will provide the first comprehensive statistical synthesis and summary of the empirical evidence regarding the antecedents and consequences of workplace SH. We will begin by providing a definition of SH, as well as how it is conceptualized and measured based on the theoretical foundations developed by Fitzgerald and her colleagues (e.g., Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997; Fitzgerald, Gelfand & Drasgow, 1995). We then describe each of the antecedent and outcome variables explored in this investigation, as well as provide a brief description of how each has typically been measured in the SH literature and the meta-analytic procedures used in the current study. We conclude with a discussion of the results, the implications of our findings, and suggestions for future research.

### *Defining and Measuring Sexual Harassment*

Sexual harassment can be understood in terms of both legal and psychological definitions, and within each category the range of specific behaviors and interpretations is myriad. As the overwhelming majority of existing empirical research is American, it is perhaps contextually relevant to present the U.S. legal definition. A multitude of past research on SH (as well as both American and Canadian court cases) has been guided by the Equal Employment Opportunity Commission (E.E.O.C., 1980) definition, such that:

> "Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when (a) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, (b) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or (c) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance, or creating an intimidating, hostile, or offensive work environment."

As alluded to in the preceding definition, SH is primarily understood as a form of sex discrimination that exists in two legal categories: quid pro quo and hostile/poisoned environment harassment (Welsh, 1999). However, SH is also understood to be a psychological construct, and its definition as such has provided the foundation for measurement development (Welsh, 1999). In psychological terms, SH can be defined as "unwanted sex-related behavior at work that is appraised by the recipient as offensive, exceeding her resources, or threatening her well-being" (Fitzgerald, Swan, & Magley, 1997; p. 15).

The most frequently used and methodologically rigorous measure of SH is the Sexual Experiences Questionnaire (SEQ; Fitzgerald et al., 1988). This behaviorally based questionnaire measures the frequency of exposure to SH and is designed to address varying levels of severity as well as both the aforementioned legal and psychological conceptualizations of SH. One of its defining characteristics is that it does not use the term "sexual harassment" in any of its items with the exception of the last. The measure is composed of three subscales: (a) *gender harassment*, the most common form of which includes "verbal, physical, or symbolic behaviors that convey hostile, offensive, and misogynist attitudes" (Fitzgerald, Swan, & Magley, 1997); (b) *unwanted sexual attention*, which includes both verbal and nonverbal incidents such as sexual imposition, touching, or repeated requests for dates (Gelfand et al., 1995); and (c) *sexual coercion*, where the target's job or rewards are contingent on sexual cooperation (Fitzgerald, Swan, & Magley, 1997). The first two subscales are comprised of behaviors that may legally constitute hostile environment harassment, whereas the third subscale includes those behaviors under the legal definition of quid pro quo harassment.

However, the SEQ is not the only measure used in the SH literature, and the remaining scales and methodology vary widely. Approximately 59% of the samples in the dataset for this meta-analysis used the SEQ and its derivatives, leaving 41% that did not. These latter studies employed measures ranging from 36-item scales to single item direct queries (e.g., "Have you ever been sexually harassed?"), and the internal consistency reliabilities of these scales ranged from .73 (Morrow, McElroy, & Phillips, 1994) to .84 (Ingram, Corning, & Schmidt, 1996). Although the empirical

evidence of the validity of the SEQ has been well documented, and using a standardized measure of SH experiences has some important advantages (e.g., ensuring comparability of findings across studies), exclusive reliance on one instrument may pose some concern in the generalizability of findings (see Pryor & McKinney, 1995). In light of this consideration, all measures of SH were included in this synthesis where possible, and moderator analyses were conducted to address whether the research findings vary depending on the type of SH measure used.

*Present Meta-Analysis*

Theories guiding SH research are relatively few and far between (see Raver & Gelfand, 2005, for one notable exception), and many researchers have recognized and lamented the lack of theoretical development in this field (e.g., Gelfand, Fitzgerald, & Drasgow, 1995; Pryor, 1995; Welsh, 1999). This may not be surprising considering that researching SH arose from the need to address an important social problem rather than from academic or theoretical interest in the topic (Fitzgerald et al., 1995b). However, there have been extensive efforts to examine SH within a broad organizational framework (Gutek, 1985; Hulin, 1993). Most notably, Fitzgerald and her colleagues (e.g., Fitzgerald, Drasgow, et al., 1997; Fitzgerald, Gelfand, & Drasgow, 1995) have developed an integrated model of SH in which antecedents and outcomes of SH are specified from an organizational perspective. For the current meta-analysis, we drew upon this theoretical model to guide and organize our research findings.

One prominent characteristic of this model is that SH is largely attributed to two situational characteristics: organizational context and job gender context. Organizational context refers to "those aspects of organizational climate having to do with tolerance of sexual harassment as well as to the presence, accessibility, and effectiveness of harassment remedies" (Fitzgerald, Swan, & Fischer, 1995; p. 62). Job gender context refers to "the factors that constitute the gendered nature of the individual's work group" (Fitzgerald, Swan, & Fischer, 1995; p. 62). Although Fitzgerald and her colleagues do not necessarily deny the existence of individual differences in SH proclivities (Fitzgerald, Gelfand, & Drasgow, 1995), they indicate a belief that it is the aforementioned situational characteristics that play a crucial role in facilitating SH incidents. Consistent with this integrated model of SH, we will be examining both organizational context (i.e., climate for SH) and job gender context as antecedent variables.

Also in Fitzgerald, Drasgow et al.'s (1997) integrated model, the consequences of SH experiences are organized into three categories: job-related, psychological, and health-related outcomes. First, job-related outcomes include employees' affective attitudes (e.g., job satisfaction and organizational commitment), employees' behaviors (i.e., work withdrawal

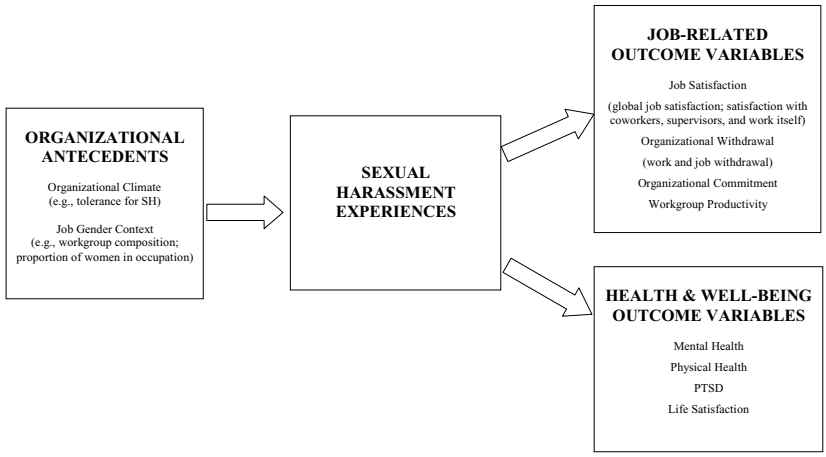


*Figure 1:* **Visual Representation of Meta-Analyzed Antecedent and Outcome Variables in Relation to Sexual Harassment Experiences.**

and job withdrawal), and job performance/productivity. Second, psychological outcomes include such variables as stress-inducing strains (e.g., depression and anxiety), life satisfaction/well-being, and symptoms related to post-traumatic stress disorder (PTSD). Finally, health-related outcomes primarily include symptoms indicative of general physical health as well as subjective attitudes toward one's health. The outcome variables examined in the current meta-analysis generally mirror those presented in the integrated model of SH, although we include a wider set of specific focal variables than does the model; these are presented in terms of their general conceptual relationship in Figure 1. Fitzgerald, Drasgow et al. (1997) also propose that the outcome variables may be differentially related to SH, such that some may demonstrate proximal associations (e.g., job satisfaction, psychological conditions) and others have more distal associations (e.g., health satisfaction, work withdrawal, job withdrawal). We will also examine whether or not our findings support this proposition. In the forthcoming section we describe the variables included in this analysis in more detail, which will subsequently be examined following the framework of Fitzgerald, Drasgow et al.'s (1997) integrated model of SH.

*Antecedent Variables*

*Organizational climate for sexual harassment.* According to Hulin, Fitzgerald, and Drasgow (1996), there are three aspects of organizational climate that are of particular importance, including perceived risk to victims for complaining, a lack of sanctions against offenders, and the perception that one's complaints will not be taken seriously. Other

studies (e.g., Williams, Fitzgerald, & Drasgow, 1999) have identified perceptions of specific organizational policies and procedures for dealing with SH as being directly related to negative employee consequences, including psychological, health-related, and job-related outcomes. Williams et al. (1999) outline a comprehensive taxonomy of these important organizational practices as including formal written guidelines for behavior, procedures for filing grievances and investigating complaints, and education and training programs, as well as implementation, prevention, and enforcement practices. In general, SH climate has been the best single predictor of the incidents of SH in organizations (Fitzgerald, Gelfand, & Drasgow, 1995; Welsh, 1999; see also Pryor, 1995), and this speaks to the significant potential for organizations to actually prevent the occurrence of SH.

The importance of situational factors in facilitating SH has been demonstrated by Pryor and colleagues in laboratory settings as well (e.g., Pryor, 1987; Pryor, LaVite, & Stoller, 1993). For example, Pryor et al. (1993) found that men with a proclivity for SH are more likely to act out these behaviors when permissive factors for such actions are present (e.g., when they observe other males engaging in such behaviors in the same place). It appears that the existence of a social climate that is permissive of SH may be a necessary condition for such behaviors to occur. In the SH literature, organizational climate for SH has primarily been measured using the Organizational Tolerance for Sexual Harassment Inventory (OTSHI; Hulin, Fitzgerald, & Drasgow, 1996) and the Department of Defense (Hay & Elig, 1995) scale.

*Job gender context.* The most widely studied job context variable in this literature is the gendered nature of a job, which has been conceptualized in terms of the gender ratio of the workgroup, sex of supervisor, and the extent to which an occupation is considered to have traditionally male (e.g., mechanic) or traditionally female (e.g., secretary) characteristics. Workplace environments where women represent the numerical minority or where women are working in traditionally "masculine" occupations are likely to be characterized by gendered behavior, cultural symbols of masculinity, male superiority, and sexual bravado (Glick, 1991; Stockdale, 1993). Therefore, it has been hypothesized that a more masculine job gender context is related to increased incidents of SH (Gruber, 2003; Gutek & Morasch, 1982; Lundberg-Love & Marmion, 2003; Wasti, Bergman, Glomb, & Drasgow, 2000). There is no single commonly used scale for job gender context per se; rather, this construct is typically assessed using items regarding gender ratios or perceived "traditionality" of the occupation under investigation. Measures employed by the studies in this dataset included indicators of workgroup composition and workplace gender ratio.

*Job-Related Outcome Variables*

*Job satisfaction.* Job satisfaction is of particular significance in the workplace given that it has been found to have pervasive effects on employee health and well being (Johns & Saks, 2001), job performance (Judge, Thoresen, & Bono, 2001), organizational citizenship behaviors, absenteeism, and turnover (Johns & Saks, 2001; see also Antecol & Cobb-Clark, 2003). Not surprisingly, job satisfaction is one of the job-related variables that is frequently investigated in the SH literature, with Lapierre et al. (2005) meta-analytically establishing that sexual workplace aggression significantly diminishes overall job satisfaction.

However, it is now widely accepted that aggregating scores on facet measures of job satisfaction cannot entirely replace global job satisfaction (Ironson et al., 1989; Jackson & Corr, 2002; Weiss, 2002). Therefore, the present study accumulated and analyzed job satisfaction data separately, grouping together those studies that used facet measures versus those that used a global measure. In doing so, it was possible to examine the differential relationships that may exist between SH experiences and the various facets of employees' satisfaction at work. In other words, we examined the relationship between global job satisfaction and SH, as well as whether SH experiences have differential effects on one's job attitudes depending on which facet of the job is being considered. The large majority of studies in this analysis measured the facets of job satisfaction using the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969).

As per previous research, "we expect that two aspects of interpersonal job dissatisfaction will be affected, namely coworker and supervisor dissatisfaction, because most sexual harassment incidents are perpetrated by either coworkers or by people in supervisory positions" (Barling et al., 1996; p. 5; see also, Keashly, Trott, & MacLean, 1994). This is consistent with the explicitly interpersonal nature of SH; SH experiences are likely perpetrated by coworkers or supervisors, and consequently there will be stronger deleterious effects on the interpersonal aspects of job satisfaction compared to global job satisfaction, which is also influenced by noninterpersonal job aspects such as pay and career progress. Thus, one should expect a stronger negative relationship between SH and supervisor/coworker satisfaction than satisfaction with work itself or global job satisfaction, and we hypothesize this result from the current meta-analysis.

*Organizational commitment.* SH experiences at work may have some implications for victims' affective attachment to the organization to the extent that these employees feel the organization is partly responsible for the occurrence and frequency of such incidents. Increasingly, many people believe that the organization should protect its employees through the implementation of preventative education and training initiatives,

proactive policies, and effective procedures for dealing with issues such as workplace SH (Adams & Bray, 1992; Hogler, Frame, & Thornton, 2002). In the absence of these protective conditions, harassment victims may become disillusioned and angry, not only with the harasser but also with the organization itself for failing to protect its employees from such incidents. This effect may be further exacerbated because SH is often a frequent and ongoing occurrence, rather than an isolated single event, thus providing many opportunities for the organization to intervene and making more salient its failure to do so. Interestingly, in one study of over 14,000 military men and women, organizational commitment was found to be strongly influenced by the implementation of SH policies and procedures, which also decreased SH incidents (Williams et al., 1999). Scales used to measure organizational commitment include the Organizational Commitment Questionnaire (Mowday, Steers, & Porter, 1979; Porter, Steers, Mowday, & Boulain, 1974) and the Affective Commitment scale (Allen & Meyer, 1990).

*Organizational withdrawal.* Organizational withdrawal is most often measured using subscales that assess two separate constructs, *work withdrawal* and *job withdrawal,* which were pioneered by Hanisch and Hulin (1990, 1991). Work withdrawal involves avoiding work tasks and one's work situation, and is characterized by behaviors such as lateness, absenteeism, neglectfulness, and even escapist drinking (Hanisch, Hulin, & Roznowski, 1998; Magley, Hulin, Fitzgerald, & DeNardo, 1999). Job withdrawal is indicative of a desire or intent to leave one's job and organization, and often precedes quitting, retirement, or choosing to be laid off (Hanisch et al., 1998). Both types of withdrawal have been found to be significantly related to experiencing SH at work (Gruber, 2003; Magley, Hulin, 1999). In the present dataset, all located studies that measured and analyzed organizational withdrawal used the Hanisch and Hulin (1991) job and work withdrawal scales, thus providing very consistent measurement characteristics and psychometric properties. In addition, measures of turnover intention were included in the job withdrawal category, as the definition of the latter does encompass turnover intentions and there were too few studies to warrant separate analysis. Turnover intentions were typically measured with the Michigan Organizational Assessment Questionnaire (Seashore, Lawler, Mirvis, & Cammann, 1982) and the Staying or Leaving Index (SLI; Bluedorn, 1982).

The relationship between SH and organizational withdrawal becomes somewhat intuitive when considered within the context of victim reporting behaviors; few women file formal complaints regarding harassment and may instead react to the harassment by withdrawing themselves from the organization or work situation (Schneider, Swan, & Fitzgerald, 1997). As such, investigating organizational withdrawal may provide important insight into the reactions and retaliation behaviors of SH victims.

Job withdrawal, where SH victims seek to completely remove themselves from the stressful environment and thus avoid contact with the source of stress, may not be a feasible option for many victims. Conversely, work withdrawal behaviors represent actions that victims can take without leaving their jobs or the organization, such as purposefully neglecting their work, lowering productivity, and even engaging in individual-level sabotage. As such, we hypothesize a stronger relationship between SH experiences and work withdrawal versus job withdrawal, reflecting that victims may not perceive quitting or retirement to be a feasible possibility. One surprising statistic states that even when victims' experiences legally constituted rape, 81% remained at their job (Lundberg-Love & Marmion, 2003). Harassment victims may lack the financial resources to leave their job, they may perceive few other options available to them in the job market, or they may feel obligated to stay with their current employer. Therefore, they may perceive work withdrawal behaviors to be more viable and thus engage in task avoidance, neglectfulness, or even missing work. There are clear implications for organizations as a result of employee withdrawal, such as increased sick leave costs, chronic absenteeism, or even purposeful sabotage.

*Workgroup productivity.* Loss of productivity is one of the most commonly cited organizational costs associated with SH (e.g., Lengnick-Hall, 1995), along with absenteeism and sick leave. Pryor (1995) analyzed data from over 10,000 female military personnel and identified many forms of productivity problems that harassment victims experienced, including decreased quality and quantity of work, overall fitness for service, ability to work with others, and attitudes about doing a good job. In addition, reductions in individual-level productivity can be intentional as angered victims will sometimes engage in more aggressive behaviors such as task avoidance, neglectfulness, or sabotage (Fitness, 2000; Gruber & Smith, 1995). However, it is not only the individual's productivity that suffers. Rather, research evidence shows that the productivity of the entire workgroup may be negatively affected by SH (Bergman & Drasgow, 2003; Fitzgerald, Drasgow, & Magley, 1999), and this latter effect on workgroup productivity was the focus of the studies in this dataset. Workgroup productivity was assessed in terms of the respondents' perceptions of how well their workgroup performs quality work together (e.g., Bergman & Drasgow, 2003).

### *Psychological Outcomes*

The psychological outcomes included in Fitzgerald, Drasgow et al.'s (1997) integrated model of sexual harassment include an individual's life satisfaction (i.e., subjective well-being) and reactions to stressful situations. Given the specific focus of the latter on people's emotional and

behavioral reactions to negative events, it is expected that SH experiences are more strongly associated with these stress-related responses than with the global evaluation of one's life. In investigating the stress-related reaction variables, we made a distinction between psychological responses to stressful life events and those to more traumatic events. Therefore, psychological reactions to stressful events represent this category, most commonly anxiety and depression, but also including sadness, negative mood, and more general composites of psychological well-being. An example of measures included in this mental health category is the Mental Health Index (MHI; Viet & Ware, 1983), which measures the frequency of symptoms, including anxiety and depression, among its five components.

There have been some researchers who claim that some SH experiences can be traumatic (e.g., Avina & O'Donohue, 2002), and hence elicit negative effects congruent with models of traumatic stress such that these traumatic experiences are often followed by severe psychological consequences that may lead to the physical symptoms of post-traumatic stress disorder (PTSD). Some studies have used screening instruments from the crime-related PTSD measures to evaluate the psychological and physical consequences of SH as traumatic experiences (Dansky & Kilpatrick, 1997; Schneider et al., 1997). Given that these PTSD measures are specifically developed to screen out those patients suffering from trauma-related symptoms such as emotional numbing, flashbacks, and sleep disturbances, it is relevant and informative to investigate the effect of SH on PTSD symptoms separately from its effect on general mental health. Because PTSD measures are designed to assess more severe forms of mental health problems, they may create a form of range restriction, attenuating effect sizes by failing to fully assess more moderate mental health issues (e.g., anxiety). In sum, life satisfaction, mental health, and PTSD symptoms were investigated as psychological outcomes in accordance with the framework of the integrated model of SH.

In the current dataset, PTSD was measured using the CR-PTSD scale (Saunders, Arata, & Kilpatrick, 1990), the PTSD Checklist (Weathers, Litz, Herman, Huska, & Keane, 1993), the Mississippi Scale (Keane, Caddell, & Taylor, 1988), and the PTSD-SS (Foa, Riggs, Dancu, & Rothbaum, 1993). All of the studies located for this meta-analysis that measured life satisfaction used the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985).

*Health Outcomes*

The final set of outcomes includes individuals' self-evaluation of their health, as well as self-reports of physical health symptoms such as nausea, headaches, shortness of breath, or exhaustion (e.g., Magley, Hulin et al., 1999). Many SH studies included measures of physical health symptoms

but studies involving measures of health attitudes are scant. Accordingly, in this meta-analysis we cumulated only the correlations between SH experiences and physical health symptoms. Many of the studies in this dataset used the Health Conditions Index (Belloc, Breslow, & Hochstim, 1971).

*Moderator Analyses*

Two exploratory moderator analyses were conducted. First, the effects of military versus nonmilitary samples were examined in order to address several possible sample disparities. Several of the military samples were disproportionately large compared to studies using civilian employees, and we separated the two sample types in order to attenuate possible sample-weighting biases in the results. In addition, the structure and culture of the military has many unique characteristics not found in nonmilitary environments, and this may result in important differences between the two groups in terms of the antecedents and outcomes of SH. For example, Pryor (1995) suggested that the experiences of women in the military may differ from civilian women in several ways, such as the relatively small percentage of women working in the military (10% at the time of his study) and the traditional dominance of men in military occupations. In addition, Niebuhr (1997) observes that the two sectors also have separate and very different judicial systems, perhaps most notably that military adjudication is generally an internal process and that there were no standards or military legislation specific to SH at the time of his paper.

Second, we explored the issue of commensurability, or scale equivalence. This is also known as the "apples and oranges" problem and is common to most meta-analyses (Cortina, 2003; Sharpe, 1997). In order to have a sufficient number of studies, it is necessary to aggregate results that are based on similar though not identical measures. Though this does help to improve the generalizability of the results, it also injects method variance into the findings. Given that SH is central to this meta-analysis, we assessed whether results using the SEQ (Fitzgerald et al., 1988; Fitzgerald, Swan, & Fischer, 1995) was different from other SH scales. As mentioned previously, the SEQ is the most commonly used measure of SH experiences, and it has also undergone rigorous testing and assessment of its psychometric properties. Many of the other scales used in the literature do demonstrate comparable, or at least sufficient, reliability but may have only been used in one study.

It is important to note that there were other moderators that we hoped to explore. For example, gender may predicate differences in the experience of SH because research has shown that men and women interpret sociosexual behaviors in the workplace differently (Gutek, 1985; Welsh, 1999). However, as in all meta-analyses, we are limited by the availability of data. Though we coded for the presence of these moderators, fewer

than three studies contained usable data, precluding statistical analysis (Steel & Kammeyer-Mueller, 2002). Still, such coding does at least point toward areas for future research, and we explore this issue in detail in our following *Discussion* section.

## *Method*

### *Literature Search*

Toward completing a comprehensive, exhaustive literature search, the broad term "sexual harassment" was entered into the *PsycINFO* database (1874–present), *Ovid Medline (R), CINAHL, CCTR, Medline Non-Indexed (R), Old Ovid Medline, ProQuest* Digital Dissertations, and *ProQuest Advanced*. Arguably the most widely used measure of SH is the Sexual Experiences Questionnaire (SEQ; Fitzgerald et al., 1988; Fitzgerald, Swan, & Fischer, 1995), and as such a cited reference search was performed, using the *ISI Web of Science* database, for all research citing this scale's 1988 and 1995 development manuscripts. An Internet search for unpublished articles (e.g., www.google.com) and conference proceedings (e.g., Society for Industrial-Organizational Psychology) on SH or the SEQ was also conducted. In addition, the reference sections from two recent meta-analyses in the field of SH (Ilies et al., 2003; Rotundo et al., 2001) were reviewed for additional sources. Lastly, we contacted over 30 authors who have pursued research in SH to obtain unpublished works, generating one additional dataset.

Inclusion criteria dictated that SH was quantitatively measured, a first-hand experience of the respondent, and explored in relation to some other antecedent or outcome variable. As such, articles reporting only prevalence rates, perceptions of third-party harassment incidents, content of interviews, and so forth, were excluded. In so doing, 14 variables were identified as having sufficient data available for meta-analysis; as mentioned, other variables were tracked, but insufficient data have been published to allow adequate meta-analysis (i.e., fewer than three correlations). Studies that reported neither a correlation matrix nor statistics from which correlation coefficients could be calculated (e.g., $r^2$, $t$) were not automatically excluded. Rather, in each case the author(s) were contacted and the data was personally requested, along with a request for any unpublished data or works in progress (i.e., to address the "file drawer problem").

Much SH research has been conducted using data from the U.S. Department of Defence 1995 survey (e.g., Munson, Miner, & Hulin, 2001; Williams et al., 1999; see also Hay & Elig, 1999) and the U.S. Merit Systems Protection Board's 1987 and 1994 surveys (e.g., Hesson-McInnis & Fitzgerald, 1997). The most comprehensive study from each dataset was

TABLE 1

*Meta-Analyses of Relationships Between Sexual Harassment Experiences and Antecedent and Outcome Variables*

| | | | | | 95% CrI | | 95% CoI | |
|---|---|---|---|---|---|---|---|---|
| Variable | *k* | *N* | $r_o$ | $r_c$ | L | U | L | U |
| *Organizational antecedents* | | | | | | | | |
| Organizational climate | 21 | 50,509 | .332 | .364 | .22 | .51 | .33 | .40 |
| Job gender context | 13 | 48,165 | −.121 | −.192 | −.30 | −.09 | −.23 | −.15 |
| *Job-related outcomes* | | | | | | | | |
| Coworker satisfaction | 25 | 34,221 | −.261 | −.316 | −.40 | −.24 | −.34 | −.30 |
| Supervisor satisfaction | 26 | 34,450 | −.255 | −.285 | −.40 | −.17 | −.31 | −.26 |
| Work satisfaction | 23 | 33,486 | −.215 | −.241 | −.36 | −.12 | −.27 | −.21 |
| Global job satisfaction | 12 | 14,455 | −.203 | −.245 | −.25 | −.25 | −.27 | −.22 |
| Organizational commitment | 16 | 31,194 | −.221 | −.249 | −.33 | −.17 | −.27 | −.23 |
| Job withdrawal | 16 | 6,201 | .129 | .161 | .09 | .24 | .12 | .20 |
| Work withdrawal | 12 | 4,940 | .236 | .299 | .30 | .30 | .26 | .34 |
| Workgroup productivity | 6 | 27,425 | −.202 | −.221 | −.33 | −.11 | −.27 | −.17 |
| *Health & well-being outcomes* | | | | | | | | |
| Mental health | 29 | 45,880 | −.183 | −.273 | −.39 | −.16 | −.31 | −.24 |
| Physical health | 16 | 32,121 | −.210 | −.247 | −.44 | −.05 | −.30 | −.19 |
| PTSD | 9 | 4,076 | .210 | .247 | .17 | .33 | .17 | .33 |
| Life satisfaction | 11 | 4,545 | −.103 | −.119 | −.35 | .11 | −.20 | −.04 |

*Note.* $k$ = number of samples. $N$ = total number of data points. $r_o$ = uncorrected weighted mean correlations. $r_c$ = weighted mean correlations corrected for reliability. CrI = credibility interval. CoI = confidence interval.

included so that the use of only independent samples was ensured. Where one of the excluded studies provided a correlation not contained in the chosen study, this additional variable information was entered without double counting the sample information itself.

More than 300 data points were collected for analysis from 58 independent samples with a total sample size of 68,343, of which 55,641 were women. The final dataset was composed of 41 studies that included a quantitative measure of SH as well as one or more of the 14 variables discussed in the introduction (see also Table 1) and for which a correlation value was reported, calculable, or subsequently provided by the researcher(s). Of these, 35 were published journal articles, 5 were dissertations, and 1 study consisted of new, unpublished data.

### *Study Coding Procedures*

Studies were coded for source type (e.g., peer-reviewed journal, dissertation, unpublished), sample size, proportion of women, age and education of respondents, population type (e.g., student, civilian employees, military

personnel), method (e.g., self-report), year of publication, and lead author. All SH measures were coded for scale name, publisher, year of publication, number of items, and coefficient alpha, as well as intercorrelations among subscales where appropriate. For each outcome measure, the correlation coefficient with the total SH score was recorded along with its coefficient alpha. In the case of experimental manipulation in the research design (e.g., pre- and post manipulation measures), the data reported at Time 1 were entered to avoid any effects of the experimental conditions.

All studies were double coded by the first author and a research assistant, and any discrepancies or errors were rectified via discussion. Care was taken to achieve consistency in the direction of the reported correlation coefficient; for example, studies may have operationalized mental health outcomes as the *presence* of symptoms or the *absence* of symptoms (or, similarly, the presence or absence of health). The lead researcher thus structured the variables to ensure consistency of meaning and direction, based on the measures themselves.

*Meta-Analytic Method*

Using the method of Hunter and Schmidt (1990), correlations were meta-analyzed for SH and each antecedent or outcome variable. Corrections were made for dichotomization and for reliability. Unreported reliability coefficients were substituted with the average reliability for the variable across samples. Where latent variable correlations were reported, no reliability correction was made. Credibility intervals were calculated to indicate any potential moderator effects, and confidence intervals were computed to evaluate the accuracy of effect size estimates and extent to which sampling error was present in the meta-analyzed results (see Whitener, 1990). For all meta-analysis procedures, the computer program *MetaExcel* (Steel, 2003) was used.

When testing our specific hypotheses regarding differences between population estimates (e.g., between the facet levels of job satisfaction), we used independent sample correlation tests for two reasons. First, meta-analytically combining data results in mixed samples, both independent and repeated. Second, using tests of independent rather than repeated samples provides a more conservative test of our hypotheses.

*Moderator Analyses*

Two exploratory moderator analyses were conducted, again observing the three-data point minimum. First, the results for military versus non-military samples were compared regarding supervisor, coworker, and work satisfaction, global job satisfaction, mental health, physical

health, organizational commitment, and organizational climate. Second, the results for studies using the SEQ to measure SH experiences were compared with those using other harassment measures regarding supervisor, coworker, and work satisfaction, global job satisfaction, organizational commitment, organizational climate, and mental health variables. Studies using the SEQ–DoD measure were not included in this analysis due to disproportionately large sample sizes. The significance of the two moderators described above was evaluated by weighted least squares regression analysis, whereby a weighting variable was created from the inverse of sampling error for each moderator test (see Steel & Kammeyer-Mueller, 2002). Wherever the moderator analyses were viable, the results are discussed after the main effects for that outcome or antecedent variable.

### *Results and Discussion*

The meta-analytic results for the relationship between SH experiences and the focal antecedent and outcome variables are presented in Table 1, and the results of the moderator analyses are shown in Tables 2 and 3. In order to address potential "file drawer" problems, *Failsafe-N* values were calculated for each of the variables, which estimates the number of unpublished studies with an average effect of zero that would be required to reduce a given meta-analytic coefficient to $\pm.10$ (i.e., a small correlation with lower practical significance, as per Cohen, 1969). These results appear in Table 4, demonstrating that the current findings are unlikely to be significantly affected by publication bias.

#### *Organizational Antecedents of Sexual Harassment*

Organizational climate for SH had the largest effect size of any variable in this analysis ($r_c = .364$), confirming its importance as an antecedent of SH. Indeed, in Fitzgerald, Drasgow et al.'s (1997) integrated model of workplace harassment, SH climate figures prominently in both the theoretical development and the model itself as a fundamental predictor of increased prevalence of SH. There is a strong research foundation in this literature regarding respondents' perceptions of organizational tolerance, policies and procedures, and implementation practices, and it is quite clear that the organizational climate and workplace environment are central to understanding the conditions under which harassment is more likely to occur and how the victims are affected.

However, much less research has been focused on the specific policies and procedures themselves in terms of how to successfully implement prevention strategies, incorporate education and training, increase awareness

TABLE 2
*Moderator Analyses for SEQ Versus Non-SEQ Measurement of Sexual Harassment Experiences*

| | | | | | 95% CrI | | 95% CoI | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | $k$ | $N$ | $r_o$ | $r_c$ | L | U | L | U | $R^2$ | $F$ |
| *Organizational climate* | | | | | | | | | | |
| Non-SEQ | 4 | 1,713 | .227 | .254 | −.13 | .64 | .04 | .48 | .022 | .267 |
| SEQ | 10 | 3,536 | .389 | .429 | .24 | .62 | .36 | .50 | | |
| *Supervisor satisfaction* | | | | | | | | | | |
| Non-SEQ | 6 | 1,567 | −.315 | −.393 | −.69 | −.10 | −.63 | −.14 | .013 | .217 |
| SEQ | 12 | 4,580 | −.235 | −.271 | −.44 | −.10 | −.33 | −.21 | | |
| *Coworker satisfaction* | | | | | | | | | | |
| Non-SEQ | 5 | 1,338 | −.186 | −.224 | −.29 | −.16 | −.42 | −.04 | .352 | 9.22** |
| SEQ | 14 | 5,458 | −.267 | −.312 | −.41 | −.22 | −.35 | −.27 | | |
| *Work satisfaction* | | | | | | | | | | |
| Non-SEQ | 6 | 1,567 | −.154 | −.287 | −.41 | −.16 | −.45 | −.13 | .227 | 4.40 |
| SEQ | 11 | 4,494 | −.110 | −.127 | −.27 | .06 | −.17 | −.04 | | |
| *Global job satisfaction* | | | | | | | | | | |
| Non-SEQ | 6 | 1,135 | −.249 | −.308 | −.31 | −.31 | −.40 | −.22 | .238 | 2.82 |
| SEQ | 5 | 3,120 | −.196 | −.260 | −.26 | −.26 | −.32 | −.19 | | |
| *Organizational commitment* | | | | | | | | | | |
| Non-SEQ | 10 | 3,769 | −.175 | −.208 | −.34 | −.08 | −.26 | −.15 | .005 | .06 |
| SEQ | 4 | 2,268 | −.171 | −.201 | −.20 | −.20 | −.26 | −.14 | | |
| *Mental health* | | | | | | | | | | |
| Non-SEQ | 6 | 1,282 | −.089 | −.183 | −.40 | .03 | −.42 | .04 | .055 | 1.44 |
| SEQ | 21 | 34,339 | −.241 | −.275 | −.39 | −.16 | −.30 | −.25 | | |

*Note.* * $p < .05$, ** $p < .01$. $k$ = number of samples. $N$ = total number of data points. $r_o$ = uncorrected weighted mean correlations. $r_c$ = weighted mean correlations corrected for reliability. CrI = credibility interval. CoI = confidence interval.

of organizational policies and procedures, and conduct general program evaluation and efficacy assessment (see Williams et al., 1999, for one such exception). Put simply, we know that organizational factors are fundamental, and therefore, we should move toward identifying the organizational policies and procedures that are most critical for preventing the conditions that create a favorable organizational climate for SH. This in turn should lead to decreased occurrences of SH.

It is important to note, however, that all the studies included in this meta-analysis operationalized this climate variable as an individual perception rather than objective characteristics of organizations or work groups. Therefore, the effect size reported here may be overestimated due to method effect. One way of avoiding this problem is to obtain a

TABLE 3
*Moderator Analyses for Military Versus Non-Military Studies*

| | | | | | 95% CrI | | 95% CoI | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | $k$ | $N$ | $r_o$ | $r_c$ | L | U | L | U | $R^2$ | $F$ |
| *Organizational climate* | | | | | | | | | | |
| Military | 6 | 27,425 | .294 | .322 | .23 | .42 | .28 | .36 | .157 | 3.36 |
| Nonmilitary | 14 | 5,249 | .336 | .375 | .08 | .67 | .29 | .46 | | |
| *Job gender context* | | | | | | | | | | |
| Military | 6 | 27,425 | −.097 | −.157 | −.24 | −.07 | −.21 | −.10 | .277 | 3.84 |
| Nonmilitary | 6 | 2,905 | −.172 | −.266 | −.38 | −.15 | −.35 | −.19 | | |
| *Supervisor satisfaction* | | | | | | | | | | |
| Military | 6 | 27,425 | −.261 | −.288 | −.38 | −.20 | −.33 | −.25 | .014 | .35 |
| Nonmilitary | 20 | 7,025 | −.241 | −.281 | −.48 | −.09 | −.34 | −.23 | | |
| *Coworker satisfaction* | | | | | | | | | | |
| Military | 6 | 27,425 | −.266 | −.323 | −.37 | −.28 | −.34 | −.31 | .028 | .66 |
| Nonmilitary | 16 | 6,796 | −.257 | −.302 | −.40 | −.20 | −.34 | −.26 | | |
| *Work satisfaction* | | | | | | | | | | |
| Military | 6 | 27,425 | −.233 | −.258 | −.34 | −.18 | −.29 | −.22 | .380 | 12.88** |
| Nonmilitary | 17 | 6,061 | −.121 | −.154 | −.30 | −.01 | −.21 | −.10 | | |
| *Organizational commitment* | | | | | | | | | | |
| Military | 6 | 27,425 | −.228 | −.255 | −.32 | −.19 | −.29 | −.22 | .152 | 2.51 |
| Nonmilitary | 10 | 3,769 | −.175 | −.208 | −.34 | −.08 | −.26 | −.15 | | |
| *Mental health* | | | | | | | | | | |
| Military | 7 | 37,625 | −.240 | −.272 | −.28 | −.16 | −.32 | −.22 | .039 | .69 |
| Nonmilitary | 12 | 4,780 | −.208 | −.253 | −.25 | −.25 | −.29 | −.22 | | |
| *Physical health* | | | | | | | | | | |
| Military | 6 | 27,425 | −.204 | −.238 | −.38 | −.09 | −.30 | −.17 | .068 | 1.03 |
| Nonmilitary | 10 | 4,696 | −.241 | −.308 | −.69 | .07 | −.43 | −.17 | | |

*Note.* * $p < .05$, ** $p < .01$. $k$ = number of samples. $N$ = total number of data points. $r_o$ = uncorrected weighted mean correlations. $r_c$ = weighted mean correlations corrected for reliability. CrI = credibility interval. CoI = confidence interval.

workgroup-level SH climate measure by finding the sum of the scores on individual perceptions of SH climate within an individual's workgroup, excluding that individual's own score. Interestingly, when Fitzgerald, Drasgow, et al. (1997) computed this type of workgroup-level measure and correlated it with the SEQ, they found that the correlation involving the group-level variable of SH climate was significant but noticeably weaker ($r = .21$) than that involving individual perceptions of SH climate ($r = .45$). As such, future researchers may wish to consider measuring climate perceptions at the workgroup level, as described above, in order to reduce potential method effects.

TABLE 4
*Failsafe-N Estimates for Meta-Analytic Correlations*

| Variable | *r*-Original | Failsafe-*N* |
|---|---|---|
| *Organizational antecedents* | | |
| Organizational climate | .364 | 65.54 |
| Job gender context | −.192 | 12.26 |
| *Job-related outcomes* | | |
| Coworker satisfaction | −.316 | 57.94 |
| Supervisor satisfaction | −.285 | 50.98 |
| Work satisfaction | −.241 | 33.72 |
| Global job satisfaction | −.245 | 18.22 |
| Organizational commitment | −.249 | 25.00 |
| Job withdrawal | .161 | 10.01 |
| Work withdrawal | .299 | 25.47 |
| Workgroup productivity | −.221 | 7.54 |
| *Health & well-being outcomes* | | |
| Mental health | −.273 | 52.72 |
| Physical health | −.247 | 24.61 |
| PTSD | .247 | 13.79 |
| Life satisfaction | −.119 | 2.12 |

*Note. r-original* = meta-analytic correlation generated in current study. *Failsafe-N* = number of unpublished papers with an average correlation of zero required to equal *r-criterion*.

For all variables above, *r-criterion* = ±.10 [proposed "true score" correlation due to publication bias]; and *r-Failsafe* = 0.00 [estimated average value for unpublished studies].

Relative to organizational climate for SH, job gender context exhibited a smaller effect size ($r_c = -.192$) but still demonstrates that having fewer women in one's immediate work environment, or working in a job that is considered atypical for women is one situational risk factor for SH. Interestingly, the results of the moderator analysis involving the distinction between military and nonmilitary organizations supports the idea that job gender context is likely to be an important risk factor. Specifically, it was found that the relationship between job gender context and SH was greater for the nonmilitary sample than for the military sample (Table 3, $r_c = -.266$ vs. $r_c = -.157$; $R^2 = .28$, $F = 3.84$, $p = .08$). This result can be interpreted by the fact that the job gender contexts of nonmilitary organizations are likely to be more heterogeneous than those of military organizations. As such, the effect of job gender context can be more adequately investigated in the future by including diverse job contexts that vary in terms of gender composition and/or normative male domination.

### *Job-Related Outcomes of Sexual Harassment*

*Job satisfaction.* SH was negatively correlated with all facets of job satisfaction as well as global job satisfaction (see Table 1). We also

examined whether SH experiences have differential effects on one's job attitudes, depending on how job satisfaction was defined (i.e., global job satisfaction versus facet measures). Evaluating the results from the three subscales of the JDI indicates that there may be much value in retaining the separate facet constructs as distinct components of job satisfaction. Our hypothesis was supported such that employees' satisfaction with the interpersonal aspects of work (i.e., coworkers: $r_c = -.316$; supervisors: $r_c = -.285$) was significantly more negatively affected by SH experiences than was their satisfaction with work itself ($r_c = -.241$). Indeed, the results of the independent samples correlation tests revealed large differences between these facets of job satisfaction; that is, coworker satisfaction compared to work satisfaction ($z = 10.53$; $p < .001$), and supervisor satisfaction compared to work satisfaction ($z = 6.12$; $p < .001$). As per our earlier postulation, it does indeed appear that SH experiences have stronger negative effects on the interpersonal aspects of job satisfaction, specifically victims' feelings about their supervisor and coworkers, which may be reflective of the fact that these are the source of victims' distress and dissatisfaction.

In addition, the consequences to global job satisfaction ($r_c = -.245$) yielded very similar effect sizes to the work satisfaction results, with nearly identical confidence interval values; this is also consistent with our hypothesis that work-specific aspects of satisfaction are only affected indirectly by SH experiences. However, there is still a significant negative effect on victims' overall satisfaction with their jobs and their work. Overall, and without exception, SH experiences negatively affected victims' feelings about their job, regardless of how this construct was measured.

Interestingly, dissatisfaction with coworkers correlated slightly more strongly with SH experiences than did dissatisfaction with supervisors ($z = 4.41$; $p < .001$), and this finding is consistent with previous research findings that coworkers (i.e., peers, persons of equal organizational status), rather than superiors, are the most common perpetrators of SH at work (Lengnick-Hall, 1995; Stawar, 1999; USMSPB, 1981, 1988, 1994).

Table 2 shows the results of moderator analyses involving the SEQ versus non-SEQ measures with respect to measures of job satisfaction. Respondents in SEQ studies reported a stronger negative impact on their coworker satisfaction than did individuals in non-SEQ studies ($F = 9.22$; $p < .01$).

In the moderator analysis involving the military and nonmilitary distinction (Table 3), we found that SH negatively impacted work satisfaction significantly more for military personnel ($r_c = -.258$) than for nonmilitary respondents ($r_c = -.154$; $F = 12.88$; $p = .002$). This may be indicative of the inextricable link between the interpersonal and work-specific aspects of life in the military; very few tasks are individual and independent, and there is a strong reliance and emphasis on teamwork.

In contrast, for many civilian occupations there is more distinction between the interpersonal aspects (e.g., meetings with coworkers) and work-specific aspects (e.g., administrative tasks) of one's job.

*Organizational commitment.* As expected, SH was negatively correlated with organizational commitment ($r_c = -.249$), and the effect size was similar to those found with respect to work satisfaction and global job satisfaction but lower than either supervisor or coworker satisfaction. Clearly, SH experiences have a negative effect on one's psychological attachment to the organization as a whole.

The moderate negative correlation observed between SH and organizational commitment (OC) can be understood in two ways. First, there might be a third variable that influences both variables. For example, Williams et al. (1999) found that implementing organizational policies and procedures regarding SH correlated significantly and positively with organizational commitment, and significantly and negatively with SH incidents. It would be interesting to examine whether the organizational commitment–SH relationship can be fully understood in terms of the existence of third variables. If not, an additional causal path from SH and organizational commitment is likely necessary to explain this relationship and may suggest that some SH victims may indeed blame the organization for what they suffered.

To shed some empirical light on this issue, we examined whether organizational climate for SH can account for the relationship between SH and OC by calculating the partial correlation between SH and OC after removing the influence of organizational climate for SH. To compute the partial correlation, we estimated the meta-analytic correlation between OC and organizational climate for SH based on the studies included in the present meta-analysis ($r_c = -.379, k = 9, N = 24{,}740$). The observed correlation between SH and OC (i.e., $r_c = -.249$) was substantially reduced but did not completely disappear after controlling the influence of the organizational climate (partial $r_c = -.129$). It appears that some portion of the observed relationship between SH and OC remains unexplained by organizational climate for SH. This finding suggests that SH experiences may have a direct impact on one's attitudes toward the organization; however, additional research is needed to shed more light on this interesting question.

*Work/job withdrawal.* The results indicate that SH has a positive relationship with both dimensions of organizational withdrawal, and our hypotheses regarding the differential relationships between SH and the specific dimensions of withdrawal were also supported. The relationship between SH experiences and work withdrawal ($r_c = .299$) was much stronger than for job withdrawal ($r_c = .161$); the 95% confidence intervals did not overlap and the independent samples correlation test yielded a highly significant z-value, indicating that the two effect sizes

are statistically different ($z = 7.65$; $p < .001$). SH victims are more likely to engage in behaviors such as avoidance, missing work, and task neglect than to actually leave their jobs. These results are consistent with previous research indicating that avoidance is the most common response to SH experiences (Gruber, 2003) and may be indicative of victims' reluctance or inability to actually quit or retire (Lundberg-Love & Marion, 2003).

*Workgroup productivity.* The findings regarding work withdrawal behaviors are also consistent with the observed negative relationship between SH and productivity ($r_c = -.221$). Even on an intuitive level, if an individual is missing work, arriving late, and neglecting tasks in an effort to avoid the perpetrator or hostile environment, the productivity of this employee is likely to be compromised. Moreover, the measures in this dataset assessed workgroup productivity, beyond individual perceptions of one's own ability to be productive, demonstrating the pervasiveness of these effects. Indeed, research has clearly demonstrated the ambient effects of SH as well (Glomb et al., 1997), such that these negative outcomes are not limited to the victim alone.

### *Psychological and Health Outcomes of Sexual Harassment*

In general, SH experiences appear to have a negative impact on the psychological condition of victims. Specifically, one of the most commonly studied consequences of SH is its effects on victims' mental health, and our findings confirm the negative relationship between the two ($r_c = -.273$). Moreover, the negative effects of SH may also be manifested in physical symptoms, as evidenced by the estimated effect size of $-.247$.

Perhaps one of the most impactful outcomes of SH is that some victims may exhibit symptoms of post-traumatic stress disorder (PTSD) and have much higher incidence rates and lifetime risk for the disorder than do nonvictims (e.g., Dansky & Kilpatrick, 1997). Our results showed that experiencing SH is moderately correlated with increased symptoms of PTSD ($r_c = .247$), which suggests a possibility that some forms of SH may be considered traumatic events. Although extreme forms of SH such as sexual assaults have always been regarded as traumatic events within the mental health profession, other forms of SH have typically been considered failing to meet the diagnostic criteria for PTSD (see Avina & O'Donohue, 2002). As Avina and O'Donohue suggested, we may have to apply a broader criteria in judging whether a certain form of SH constitutes a legitimate trauma.

Lastly, the effect size for life satisfaction ($r_c = -.119$) was relatively weak compared to the other psychological outcome variables. As previously mentioned, the weaker relationship is not surprising, given that this construct encompasses the victim's life outside of work. Despite the weak

relation between SH and life satisfaction, it may not be prudent to conclude that SH experiences have little bearing on one's subjective well-being for two reasons. First, SH experiences vary substantially with respect to severity and frequency; more severe and/or frequent forms may have a profound effect on one's life satisfaction. Second, it may be that temporal factors play a role in this relationship. For example, in some studies investigating external factors influencing life satisfaction, it has been found that only recent events matter (see Suh, Diener, & Fujita, 1996). As such, it is possible that recently experienced SH may have a profound effect on one's life satisfaction. The relatively low correlations may reflect that, for some participants, there is a considerable time lapse between their experience of SH and when life satisfaction was measured. Consistent with these accounts, the lower-bound credibility interval of −.35 indicates that for some people overall satisfaction with life can be compromised by SH experiences.

### *Overall Discussion and Conclusions*

Guided by the integrated model of SH developed by Fitzgerald, Drasgow et al. (1997), this study meta-analyzed all available data with respect to the antecedents and consequences of workplace SH. The pattern of our findings generally mirrors the paths proposed by this integrated model, such that the organizational context (e.g., climate for SH) and the job gender context of the organization play an important role in facilitating the occurrence of SH. Moreover, the impact that SH experiences have on the victim is significant, including many job-related consequences such as decreased job satisfaction and organizational commitment, and increased withdrawal behaviors. SH also negatively affects the mental, physical, and psychological health of the victims, as evidenced in their higher rates of symptoms such as anxiety, depression, and even PTSD.

This confirms that SH is particularly important from a justice perspective. It is significantly and substantively associated with a host of harms. In addition, because the credibility intervals do not span zero, it does suggest that SH can be considered a universal issue (as per Gruber, 2003). That is, where it occurs, there should be adverse effects (though there can be specific exceptions represented by resilient individuals experiencing less invasive forms of SH). This is significant given that in the U.S., "the Supreme Court commented that sexual harassment must be sufficiently severe or pervasive as to alter the conditions of the victim's employment" (Aberhad-Hodges, 1996, p. 510). Furthermore, because there are antecedents of SH that are largely within organizational control (e.g., climate), it supports the principle that organizations can be held partly responsible. In many jurisdictions this is the case; the employer is legally responsible for keeping a work environment free of SH.

In addition, these results also indicate that reducing SH is simply wise from a strict management or performance perspective (Faley, Knapp, Kustis, & Dubois, 1999). It reduces organizational commitment and increases the likelihood of turnover, the cost of which can easily be extreme (Tziner & Birati, 1996). Also, it has been well established that the economic effects of depression and similar pathologies are substantive (e.g., Birnbaum, Leong, & Greenberg, 2003; Golberg & Steury, 2001). Because SH is moderately associated with such ailments, addressing it should be an integral part of any company's wellness program. Similarly, the relationship between SH and reduced productivity has been directly established. Using utility analysis (as per Roth, Bobko, & Mabon, 2001), we can now initially estimate the financial impact of SH. We begin by transforming our productivity correlation (−.221) into a *d*-score (−.45). Then we multiply this by the difference in worth between an average performer (i.e., 50th percentile) and a superior one (i.e., 85th percentile). Usually, this is in the many tens of thousands, and it often increases as the job becomes more complex. Consequently, if this difference is worth $50,000, then SH is costing on average about $22,500 per person affected in terms of productivity alone.

There are several aspects of this research that serve to instill confidence in the results presented here. First, the necessity of researcher-based subjective judgments, a frequently criticized aspect of meta-analysis, was lessened in this study such that many of the antecedent and outcome measures used were consistent across the majority of studies, even though a range of samples was used. The meta-analytic findings presented above were based on primary studies involving diverse industrial and occupational contexts, thereby allow for greater generalization of the results. Furthermore, the primary studies contained in the present meta-analysis have largely been conducted since 1995, providing a current and timely dataset from which to elicit a rigorous estimate of actual effect sizes.

There are, however, several other characteristics of this literature that meta-analysis is not able to resolve and which should be considered when interpreting the findings. Reliance on self-report survey data is a commonly cited issue, raising concerns regarding common method variance, socially desirable responding, and other data collection phenomena such as demand characteristics. However, the experience of SH, and the outcomes thereof, is arguably an individual one and the targets themselves are the only ones adequately able to articulate the various aspects associated with these experiences. Although self-report questionnaires regarding mental health and physical health could indeed be strengthened by employing multisource ratings, this should not detract from the importance of the individual's perception of his or her own health and well-being. That being said, the reporting of SH experiences, and any of the outcome

variables mentioned in this analysis, is inherently subjective and may be influenced by reporters' personality and other factors. Therefore, the extent to which self-reported harassment experiences are influenced by individual difference variables that are not directly related to one's objective SH history should be evaluated in the future. In addition, future investigations should also include comparisons of victims' and nonvictims' health care services utilization, frequency and duration of sick leave, and propensity to seek counseling, in combination with the richness and detail provided by self-report surveys.

There are several other ways in which future research should expand upon the findings of this study. First, there are a number of moderator analyses that would have been highly desirable to conduct and that may have contributed incrementally to the information presented in this meta-analysis. However, there are insufficient data to allow for this exploration based on the current literature regarding the antecedents and outcomes of SH experiences. Nonetheless, a brief discussion of one such potential moderator is presented here, accompanied by a strong advocation for the continued investigation thereof.

The first such area involves the observed differences between men and women in this literature, and these are myriad. Important gender differences have been demonstrated in the way SH incidents are perceived, such that women are more likely to perceive that harassment has taken place and typically rate the behavior as more severe, inappropriate, and offensive than do men (e.g., Rotundo et al., 2001). As well, the overwhelming majority of SH victims are women (Fitzgerald & Shullman, 1993; USMSPB, 1981, 1987). However, the SH of men also occurs (USMSPB, 1981, 1987); in fact, the E.E.O.C. recently reported that in 2004 more than 15% of their SH complaints were filed by men (E.E.O.C., 2005). Despite this, few efforts have been made to document the negative outcomes of SH for men. As such, there exists an important and unanswered question as to whether the outcomes of SH differ for men and women, both in characteristics and in magnitude. It has been demonstrated that men's interpretations of workplace sociosexual behavior are fundamentally different from women's interpretations (Cohen & Gutek, 1985; Welsh, 1999), but little has been done to compare the relative magnitude of outcomes for men to those of women when the former do indeed feel that they have been harassed. It is also important to note that many researchers have suggested that, because of the aforementioned gender differences in perceptions and interpretations, assessing the effects of SH on men with measures designed for women may be highly inappropriate (e.g., Magley, Waldo, Drasgow, & Fitzgerald, 1999). This fact, combined with the paucity of data on the SH of men, illustrates that the unanswered questions are numerous and there is a pressing need for further research on this topic.

Another potential moderator that should be explored in future research is the role of cross-cultural differences. Wasti et al. (2000) tested the cross-cultural equivalence of Fitzgerald, Gelfand et al.'s (1995) integrated model of SH by examining its constructs within a Turkish sample. They found that, although the model did generalize overall, the components of the model were not identical between American and Turkish cultures. Wasti et al. (2000) concluded that "the form of the model is invariant but the parameters differ moderately across cultures" (p. 775). Moreover, they found that the SEQ indicator exhibited nonequivalent loadings between the two samples, and they recommended potential revisions to SH measurement for cross-cultural purposes. Although the overall deleterious effects of SH on women in the workplace have been repeatedly demonstrated across cultures, it also appears that the specific structure, interpretation, and measurement of SH may differ depending on cultural context. Our meta-analysis was unable to test for potential cross-cultural moderators due to the current dearth of primary studies in cultures or countries outside the United States, especially those using sufficiently comparable measurement to allow for meta-analysis. Future research should continue to explore how SH is manifested and understood across meaningfully different cultural groups and should resolve the observation made by Wasti et al. (2000) that "developing emic measurements of sexual harassment within cultures are needed" (p. 776).

Future research should also further examine the role that individual differences play in workplace SH, as the majority of the studies in the current dataset emphasize organizational climate or environmental factors as the central variable in SH incidents. There is little doubt that context is fundamental for the facilitation of these occurrences but not necessarily to the exclusion of individual characteristics. For example, several researchers have drawn attention to the importance of individual differences in SH proclivities (e.g., Pryor, 1987) and these individual difference factors can be fruitfully examined in studies of SH. For example, personality traits that are known to be associated with SH proclivities can be measured and aggregated across group members to represent a workgroup-level variable. Such a variable may have a direct effect on the prevalence of SH and/or an indirect effect via organizational climate variables. Moreover, such a variable may interact with organizational climate variables to increase incidents of SH. Certainly, neither individual personality nor organizational context alone is sufficient to create the conditions whereby SH may occur, as these two factors (and perhaps many others) interact inextricably.

Another potential direction for future research is to consider SH within the context of other forms of workplace abuse. In their research involving interpersonal treatment in the workplace, Donovan, Drasgow, and Munson

(1998) found many similar consequences, such as decreased job satisfaction and higher rates of turnover, resulted from nongender based abusive treatment (e.g., yelling at or belittling employees). Their measures also included SH specifically, and this more comprehensive exploration may help to illustrate the negative consequences of hostile, unhealthy working conditions in general. That being said, SH is argued to be conceptually and experientially distinct given that it constitutes a form of gender discrimination and may arise from different antecedents in many cases (e.g., desired dominance over women or other gender/cultural factors). Further exploration of, and potentially combining, these two related literatures is recommended.

This analysis also revealed that there may be important implications for both the victims and the organization depending on the source of harassment. For example, we found that dissatisfaction with coworkers correlated more strongly with SH experiences than did dissatisfaction with supervisors ($z = 4.41$; $p < .001$), which is consistent with previous research findings that coworkers (i.e., peers, persons of equal organizational status), rather than superiors, are the most common perpetrators of SH at work (Lengnick-Hall, 1995; Stawar, 1999; USMSPB, 1981, 1988, 1994). However, despite this relevant fact, the distinction between different sources of harassment is not currently reflected in SH measurement. We would strongly recommend that future research explore the implications of harassment source in greater depth, with attention dedicated to both antecedents and consequences, and that SH measurement be revised to distinguish between supervisor and coworker harassment.

On a similar note, there are new developments taking place in the SH literature specifically with regard to the theoretical structure and measurement of SH experiences (e.g., Raver & Gelfand, 2005). Two separate dimensions of gender harassment were proposed by Fitzgerald et al. (1999), namely sexist hostility and sexual hostility, and Raver and Gelfand (2005) found that these two dimensions were differentially related to team processes and outcomes in the workplace (ambient sexual hostility had a significant negative impact but ambient sexist hostility did not). To date, very little research has examined these two seemingly distinct dimensions of gender harassment. This, combined with our aforementioned assertion regarding harassment source, suggests several important considerations for future conceptualization and measurement of SH. Adding to this, although the findings of this meta-analysis are generally consistent with the variables presented in Fitzgerald, Drasgow et al.'s (1997) model, we did not find support for their assertions regarding distal versus proximal outcomes of SH. Thus, the relative location and strength of association between SH and the outcome variables presents another opportunity for future theoretical exploration in this field.

TABLE 5
*Intercorrelations Among SEQ Subscales*

| Variable | *K* | *N* | $r_o$ | $r_c$ | 95% CrI L | 95% CrI U | 95% CoI L | 95% CoI U |
|---|---|---|---|---|---|---|---|---|
| *Subscale pair* | | | | | | | | |
| Gender harassment – Unwanted sexual attention | 6 | 10,440 | .421 | .519 | .18 | .86 | .41 | .44 |
| Gender harassment – Sexual coercion | 7 | 10,434 | .293 | .340 | .11 | .57 | .28 | .31 |
| Unwanted sexual attention – Sexual coercion | 5 | 9,857 | .462 | .534 | .51 | .55 | .19 | .88 |

*Note.* $k$ = number of samples. $N$ = total number of data points. $r_o$ = uncorrected weighted mean correlations. $r_c$ = weighted mean correlations corrected for reliability. CrI = credibility interval. CoI = confidence interval.

Lastly with respect to measurement, it was our goal to meta-analyze the relationships between antecedent/outcome variables and the three dimensions of SH as categorized in the SEQ, namely gender harassment, unwanted sexual attention, and sexual coercion. However, most studies in this literature reported composite SH scores but only a small number reported separate correlations for each of these dimensions. In fact, only two of the dependent variables would have allowed for such analyses, and the number of studies within each category would have been very small ($k < 6$). Therefore, we were unable to conduct exhaustive moderator analyses involving the subdimensions of SH. We did, however, examine the two available dependent variables in an exploratory manner and found that although gender harassment and unwanted sexual attention demonstrated similar relationships with the outcomes, sexual coercion consistently showed lower effect sizes than did the other two dimensions. We interpret this as due to the extremely low base rate of sexual coercion. Given that intercorrelations among the three subscales (see Table 5) are only moderate, it is possible that each dimension will relate differentially with other dependent variables; therefore, researchers may wish to keep this in mind when conducting future research.

Several conclusions can be drawn as a result of this meta-analysis. It is evident that SH has a substantive negative impact on how victims feel about their jobs, their coworkers, and their employers. It causes them great distress, as demonstrated by the deleterious effects on both mental and physical health, as well as satisfaction with life in general. Some victims may even experience symptoms of post-traumatic stress disorder as a result of their harassment. Researchers are beginning to better understand how organizational conditions can facilitate or inhibit rates of SH, which

characteristics of perpetrators play an important role in the occurrence of harassment, and the range of negative consequences that follow. It has been adequately demonstrated here that SH is a significant occupational problem with serious consequences, and future research should build upon this important foundation toward developing effective strategies and organizational initiatives regarding SH prevention and elimination.

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