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Evaluating a Brief Scale Measuring Psychological Climate for Sexual Harassment

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Evaluating a Brief Scale Measuring Psychological Climate for Sexual Harassment

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We evaluated the measurement properties of the psychological climate for sexual harassment (PCSH) questionnaire with data from women officers (n = 311) in the Swedish Armed Forces. Confirmatory factor analyses indicated that a two-factor solution assessing risks and seriousness/actions associated with sexual harassment episodes described the underlying pattern of correlations among items. Correlational and regression analyses showed that ratings of perceived intolerance for sexual harassment were associated with high ratings of job satisfaction, organizational commitment, and (positive) mental health; and decreased ratings of psychological distress. We discuss the theoretical, methodological, and practical implications of our findings for future research.

Janice H. Laurence served as action editor for this paper.

The views expressed in this paper are those of the authors and do not necessarily reflect the official policy or position of the Swedish Armed Forces or any of its agencies.

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Organizational models of sexual harassment in the workplace suggest that individual perceptions of the organization’s tolerance for sexually harassing behaviors play an important role in understanding both the prevalence and outcomes of sexual harassment at work (Fitzgerald, Hulin, & Drasgow, 1995; Hulin, Fitzgerald, & Drasgow, 1997; Pryor & Whalen, 1997). For example, research shows that the prevalence of sexual harassment is higher in settings that are perceived to be more tolerant of harassing behaviors (e.g., Chan, Lam, Chow, & Cheung, 2008; O’Leary-Kelly, Bowes-Sperry, Bates, & Lean, 2009; Willness, Steel, & Lee, 2007). Other research indicates that perceptions of the sexual harassment climate have been linked to negative job and psychological outcomes (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997; Fitzgerald, Drasgow, & Magley, 1999; Glomb, Richman, Hulin, Drasgow, Schneider, & Fitzgerald, 1997).

This research has advanced our understanding of the role that sexual harassment climate can have on women’s job and psychological outcomes. However, there are several shortcomings that need to be addressed in the literature. First, most studies to date have used sexual harassment climate measures with limited psychometric properties (e.g., Cohorn, Sims, & Drasgow, 2001; Offerman & Malamut, 2002). Indeed, most studies assessing sexual harassment climate rely on measures that are pragmatically driven and atheoretical in nature. Second, while instruments to assess sexual harassment climate in the workplace have been developed (e.g., OTSHI; Hulin, 1993), these instruments are quite lengthy and time consuming to complete, making it difficult to include them in large-scale studies of organizations. For example, the OTSHI (Hulin, 1993) presents respondents with six harassment scenarios, which describe an employee experiencing potentially harassing behaviors from either a coworker or supervisor. Each scenario is followed by three questions with varying response scales that are designed to assess the risk associated with reporting a harassment episode; perceived seriousness of the complaint; and probable actions taken in response to the complaint. While the OTSHI scale is straightforward for respondents to complete, it is quite lengthy—the OTSHI scale can take up to three complete pages within a survey packet and can take anywhere from 5 to 15 minutes to complete, depending on the respondents’ readings skills. Thus, a briefer questionnaire with Likert-type response formats may provide a valuable alternative to the more extensive OTSHI and would be superior to the use of pragmatically driven items that lack theoretical and empirical support. Third, the preponderance of research is limited to studies of U.S. institutions and organizations. Though some research has examined sexual harassment experiences of adolescents in Swedish high schools (e.g., Witkowska & Gadin, 2005; Witkowska & Kjellberg, 2005; Witkowska & Menckel, 2005), and one study has examined sexual harassment within the Swedish Armed Forces (Estrada & Berggren, 2009), none of these studies has specifically addressed issues involving climate for sexual harassment. Thus, there is a need to develop psychometrically sound measures of psychological climate for sexual harassment.
that are concise enough to use in large-scale survey programs within different cultures.

This article begins to address this need by examining the measurement properties of the Psychological Climate for Sexual Harassment (PCHS) scale. Specifically, we examine the structural and psychometric properties of the PCHS scale with data from women officers in the Swedish Armed Forces. This work contributes to the small but growing body of research on the sexual harassment of women across cultures (e.g., DeSouza & Solberg, 2003; Timmerman & Bajema, 1999) and extends this research by incorporating methodological innovations emerging from studies of sexual harassment of women in the U.S. This work also serves to extend existing theory and research on the effects of the psychological climate for sexual harassment on women’s job and psychological outcomes by examining these relationships with data from women employed in a unique cultural and organizational context—the Swedish Armed Forces. Sweden’s social policies are unique in that they seek to ensure equality for both women and men across all aspects of life, including work, home, education, and economics (Sveriges Regering, 2009). Unlike the military institutions of other nations, the Swedish Armed Forces are legally required to promote and advance women’s participation in all spheres of the military profession (Sveriges Regering, 2008). This work will also add to the body of research intersecting gender, workplace climate, and sexual harassment (e.g., Mansfield et al., 1991; Newell, Rosenfeld, & Culbertson, 1995; Russell & Trigg, 2004; Shepela & Levesque, 1998) by extending our knowledge of the psychological climate of women working in male-dominated occupations outside U.S.-based institutions and organizations. Before presenting the main findings of our study, we provide a brief overview of the development of the Psychological Climate for Sexual Harassment scale. We also review research on sexual harassment climate and its association with several job and psychological outcomes to provide context for the hypotheses examined in our study.

Theory and Measurement of Psychological Climate for Sexual Harassment

Hulin and colleagues (Hulin, 1993; Hulin et al., 1997) have characterized sexual harassment climate as an organizational context variable that is associated with the tolerance of sexual harassment and the accessibility and effectiveness of harassment remedies. Sexual harassment climate reflects employees’ perceptions of “the degree to which an organization is perceived as insensitive to or tolerant of sexual harassment” (Hulin et al., 1997, p. 129). From this perspective, a tolerant sexual harassment climate is one in which organizational members feel that it is acceptable to engage in sexually harassing behavior; in which organizational members would consider it risky to complain about sexually harassing behaviors; and in
which a complaint about sexual harassing behaviors would not be taken seriously, and concrete actions to curtail harassment would not be likely to ensue.

Consistent with this approach, we conceptualized psychological climate for sexual harassment as comprising individual level perceptions of (a) the risks associated with reporting a sexual harassment episode; (b) the seriousness with which a complaint would be addressed; and (c) the likelihood that actions would be taken in response to the complaint (Hulin, 1993; Hulin et al., 1997). Using this definition, we developed items for the Psychological Climate for Sexual Harassment scale in two stages. In the first stage, a pool of 25 items was developed from existing research using a rational approach to instrument construction. The process included specifying a formal definition of sexual harassment climate (see above), identifying and revising items to adhere to this definition, and having experts review items for inclusion in the final instrument (Nunnally & Bernstein, 1994). Our initial pool of items was evaluated by two PhD-level psychologists to ensure adherence with the conceptual definition of sexual harassment climate. This process allowed us to reduce the initial set of items into a smaller subset of 15 nonredundant items. In the second stage, the 15-item questionnaire was administered to a sample of women officers and cadets from the Swedish Armed Forces. These responses were subjected to principal components analysis. Results yielded a single-factor solution that included nine items assessing risks, seriousness, and actions associated with sexual harassment episodes (Estrada & Berggren, 1999). Though these results were encouraging, we were not able to evaluate the validity of the scale. Therefore, in this article we further examine the structural and psychometric properties of the PCSH scale. Specifically, we employ confirmatory factor analyses to examine the factorial structure of the instrument and perform correlational and regression analysis to examine convergent and predictive validity of the measure.

Drawing on extant theory and our past research, we propose to examine the structural properties of the PCSH scale. Based on our preliminary results, we explore whether a single factor will underlie the intercorrelation among the nine-item PCSH scale. We use this initial model as our baseline model against which we evaluate two alternative models. Hulin and colleagues (1993; Hulin et al., 1997) found support for the internal structure of three factors assessing risk, seriousness, and actions across two studies involving graduate students and employees of a West Coast utility company. Thus, based on this work (Hulin, 1993; Hulin et al., 1997), we explore whether a three-factor model assessing risks, seriousness, and actions will underlie the intercorrelations among the nine items of the PCSH scale. However, Hulin et al. (1997) also noted that the two factors assessing seriousness and actions were highly intercorrelated (.80) and thus raised the plausibility of a two-factor model. Similarly, Offerman and Malamut (2002) found support for a two-factor model that included items assessing the general climate and items assessing leadership’s actions with data from U.S. military personnel.
More recently, Lytell (2007) found support for a general climate factor and three lower-order factors assessing risk, seriousness, and actions with data from a sample of litigants involved in a class-action lawsuit against a financial services organization. However, Lytell (2007) also found that the seriousness factor was highly correlated with both the general factor as well as with the two other factors. Thus, based on the work of Hulin et al. (1997), Offerman and Malamut (2001), and Lytell (2007), we explore whether a two-factor model assessing risks and seriousness/actions will underlie the intercorrelations among the nine items of the PCSH.

Sexual Harassment Climate and Job Related Outcomes

Research on the correlates of sexual harassment climate has shown that psychological climate for sexual harassment can influence job, health, and psychological outcomes of men and women across a variety of organizational settings (Chan et al., 2008; O’Leary-Kelly et al., 2009; Willness et al., 2007). Hulin et al. (1997) found that ratings of the psychological climate for sexual harassment (i.e., individual level perceptions of tolerance for sexual harassment) were correlated with employees’ reports of sexual harassment incidents, psychological well-being, symptoms of anxiety and depression, physical health conditions, and satisfaction, as well as job and work withdrawal. Moreover, they found that assessment of psychological climate consistently accounted for more variance in these outcomes beyond that accounted for by an individual’s harassment experience. Similarly, Fitzgerald et al. (1999) found that organizational climate perceptions (i.e., group level perceptions of the organization’s tolerance for harassment) were correlated with ratings of satisfaction with work, coworkers, and supervisors among U.S. military personnel. In addition, Offerman and Malamut (2002) found that women’s perceptions of their leaders’ intolerance for sexual harassment were associated with greater freedom to report harassment complaints, increased satisfaction with the complaint process, and greater levels of organizational commitment among U.S. military personnel. Finally, Glomb et al. (1997) found that indirect exposure to sexual harassment (i.e., witnessing another’s direct experience with harassment) had negative effects on job satisfaction and physical and psychological health similar to direct exposure to sexual harassment among women employed in a utility company and a food processing plant. In sum, research indicates that psychological climate for sexual harassment can negatively impact women’s job, health, and psychological outcomes (Chan et al., 2008; O’Leary-Kelly et al., 2009; Willness et al., 2007).

In keeping with this research, we evaluate the convergent and predictive validity of the PCSH by examining the relationship between scores on the PCSH and ratings of job satisfaction, organizational commitment, mental health status, and
psychological distress. Specifically, based on past research showing that climate perceptions are correlated with ratings of satisfaction and commitment to the organization (Chan et al., 2008; Willness et al., 2007), we propose that psychological climate for sexual harassment scores will be positively correlated with women’s ratings of job satisfaction and organizational commitment. That is, we predict that greater intolerance of sexual harassment will be associated with higher levels of job satisfaction and organizational commitment. Furthermore, based on previous research showing that climate perceptions are correlated with ratings of mental health status and psychological well-being (Chan et al., 2008; Willness et al., 2007), we propose that psychological climate for sexual harassment scores will be negatively correlated with women’s ratings of mental health status and psychological distress. That is, we predict that greater intolerance of sexual harassment will be associated with fewer mental health problems and lower levels of psychological distress. Finally, we evaluate the predict validity of the PCSH by examining the relationship between PCSH scores and each of the job and psychological outcomes after controlling for women’s experiences of sexual harassment. Based on past research showing that climate for sexual harassment scores predicts unique variability in women’s ratings of job satisfaction, organizational commitment, and psychological well-being (Glomb et al., 1997; Hulin et al., 1997), we propose that psychological climate for sexual harassment scores will predict unique variance in women’s ratings of job satisfaction, organizational commitment, mental health status, and psychological distress beyond that accounted for by an individual’s harassment experience. That is, we expect that PCSH scores will predict unique variability in both job and psychological outcomes beyond that accounted for by women’s harassment experiences.

There are several reasons why we expect these hypotheses to describe the relationship between PCSH scores and women’s job and psychological outcomes in the Swedish Armed Forces. First, cross-cultural research on societal values (e.g., Hofstede, 1980, 2001; Rokeach, 1973; 1974; Rokeach & Ball-Rokeach, 1989; Schwartz, 1994, 1996) and cross-cultural stereotypes (e.g., Block, 1973; Carlsson, Andersson, Berg, Jaderquist, & Magnusson, 1984; Daun, 1989; Foa et al., 1987; Glick et al., 2000; Haas, 1982; 1986; Intons-Peterson, 1988; Phillips-Martinsson, 1991; Williams & Best, 1990) suggest that there are similarities and differences with respect to human values and gender stereotypes across nations. Importantly, this research indicates that U.S. and Swedish cultures are similar with respect to a number of cultural value dimensions but also differ substantively with regard to values concerning gender and sex-role beliefs. For example, Hofstede (1980, 2001), House and colleagues (Hanges, Dickson, & Sipe, 2004; Holmberg & Akerblom, 2007; House et al., 1999) have found that Anglo cultures (e.g., U.S., Canada, Great Britain) and Nordic cultures (e.g., Denmark, Finland, Sweden) are similar with respect to individualism
(i.e., fostering independence and self-reliance), uncertainty avoidance (i.e., intolerance for ambiguity), and power distance (i.e., respect for institutional authority and structures), but substantially different with respect to masculine values (i.e., gender-related beliefs associated with work roles)—Sweden espouses more egalitarian beliefs than the U.S. Cross-cultural studies of gender and sex stereotypes also point to other similarities and differences between U.S. and Swedish culture (Daun, 1989; Intons-Peterson, 1988; Phillips-Martinsson, 1991; Williams & Best, 1990). This research indicates that many stereotypes are prescribed along gender-divided lines, and a number of these are common to U.S. and Swedish culture. For example, work roles and behaviors are prescribed along gender-divided lines in both societies (Anker, 1998; Gonäs, Lindgren, & Bildt, 2001; Statistics Sweden, 2006; Sundin, 1998; Swedish Institute, 2004); leadership behaviors tend to be characterized in masculine terms (Czarniawska-Joerges, 1993; Dorfman, Hanges, & Broadbeck, 2004; Due Billing, 2006; Hampden-Turner & Trompenaars, 1993; Holmberg & Akerblom, 2007; Ivarsson, 2007; Marongiu Ivarsson, 2000; Zander, 1997); and work roles within the military context tend to be associated with masculine warrior ideals (Berggren, 2002; Weibull, 2005; Wollinger, 2000).

Second, while the evolution of laws prohibiting sexual harassment in Sweden and the U.S. have different trajectories—U.S. laws formally recognized harassment in the 1980s, whereas Swedish laws emerged in the 1990s—the laws of both countries recognize that sexual harassment in the workplace should be illegal (EEOC, 1980; Jämställdhetslagen, 1991; Zippel, 2006). For example, Swedish and U.S. laws recognize that employers should not demand sex in exchange for jobs and better working conditions (EEOC, 1980; Jämställdhetslagen, 1991). Swedish and U.S. laws also provide protections against retaliation or victimization. However, Swedish law is more progressive than U.S. law in that it shifts the burden of proof from the employee to the employer—requiring employers to show that discrimination or victimization has not occurred; and it enables prosecution under tort law rather than civil rights law (Jämställdhetslagen, 1991).

Finally, the Armed Forces of both countries share a common organizational culture—the military culture (Dunivin, 1994; Elron, Shamir, & Ben Ari, 1999), which is characterized by the organized use of legitimate violence (Janowitz, 1971); bureaucratic control (Elron et al., 1999); task-oriented missions (Dunivin, 1994); a professional ethos that places high regard on discipline, obedience, courage, trust, and self-sacrifice and emphasizes the primacy of the group over the individual (Collins, 1998; Hillen, 1999; Townsend, 1993); and a masculine-warrior image that identifies and extols military service in terms of masculine norms (Dunivin, 1994). Thus, based on the aforementioned cultural, legal, and organizational literatures, we posit that the dimensions and correlates of psychological climate for sexual harassment of women in the Swedish Armed Forces will be similar to those derived from U.S. studies.
METHOD

Data and Procedures

Data were taken from the sexual harassment study of women in the Swedish Armed Forces conducted in 2002. Questionnaire packets were mailed to the home addresses of the entire population of women officers and cadets of the Swedish Armed Forces between May and June of 2002 ($n = 484$). The packets included a cover letter describing the general purpose of the study and confidentiality safeguards and included multi-item scales described below. A follow-up postcard reminder was sent during the third week, and a second survey packet was sent to individuals who had not responded by the end of the 6th week. We obtained 315 surveys by the end of the survey period, yielding a response rate of 65%. Comparison of demographic characteristics between respondents and nonrespondents did not reveal any significant differences between these groups.

Initial screening of the data indicated that 311 usable surveys were available for analyses. Examination of the demographic characteristics of the sample indicated that the mean age of the participants was 29.4 years ($SD = 6.45$) with a range of 19 to 57 years. Approximately 2.3% of the participants completed 2 years post-senior secondary school, 49.5% completed 3 years post-senior secondary school, 5.14% completed 4 years post-senior secondary school, and 42.4% completed university coursework. Sixty-nine percent of the participants were single, 28% were married, and 2% were separated, divorced, or widowed. The participants had an average tenure rate of 9 years in the Swedish Armed Forces and an average rate of 3 years working at their current duty station. Approximately 34% of the participants were in the Army, 20% were in the Navy, 44% were in the Air Force, and 2% worked for other defense-related agencies within the Swedish Department of Defense.

Measures

The survey included several multi-item scales assessing background and workplace information, job-related attitudes, unwanted sex-related experiences, and perceptions regarding various personnel policies and practices. All scales were adapted into the Swedish language by an independent team of English–Swedish translators using standardized translation procedures (Brislin, 1986; Hambleton & Petsula, 1998). Translators were certified and had formal training in the English language (e.g., master's degrees in English Language); were familiar with translation procedures; had at least 2 years of experience as translators or teachers of English Language; and were knowledgeable with the organizational culture of the
Swedish Armed Forces. In addition, the adapted measures were independently reviewed by two subject matter experts with expertise in gender issues in the workplace, management/business administration, and the organizational culture of the Swedish Armed Forces.

**Sexual harassment climate.** We measured psychological climate for sexual harassment with nine items developed for this study (see Table 1). Items were presented in Likert-type format with a scale ranging from *strongly disagree*

### TABLE 1
Descriptive Statistics and Factor Loadings for Hypothesized Models (n = 299)

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Corrected Item Total r</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It would be risky for me to file a sexual harassment complaint.</td>
<td>3.57</td>
<td>1.16</td>
<td>.65</td>
<td>.71</td>
<td>.76</td>
<td>.76</td>
</tr>
<tr>
<td>2. A sexual harassment complaint would not be taken seriously.</td>
<td>3.86</td>
<td>0.99</td>
<td>.54</td>
<td>.60</td>
<td>.57</td>
<td>.54</td>
</tr>
<tr>
<td>3. A sexual harassment complaint would be thoroughly investigated.</td>
<td>3.85</td>
<td>0.83</td>
<td>.52</td>
<td>.57</td>
<td>.60</td>
<td>.60</td>
</tr>
<tr>
<td>4. I would feel comfortable reporting a sexual harassment complaint at my current duty station.</td>
<td>2.87</td>
<td>1.18</td>
<td>.58</td>
<td>.64</td>
<td>.71</td>
<td>.71</td>
</tr>
<tr>
<td>5. Sexual harassment is not tolerated at my current duty station.</td>
<td>4.02</td>
<td>0.93</td>
<td>.44</td>
<td>.48</td>
<td>.50</td>
<td>.47</td>
</tr>
<tr>
<td>6. Individuals who sexually harass others get away with it.</td>
<td>3.04</td>
<td>0.92</td>
<td>.59</td>
<td>.65</td>
<td>.70</td>
<td>.69</td>
</tr>
<tr>
<td>7. I would be afraid to file a sexual harassment complaint.</td>
<td>3.06</td>
<td>1.26</td>
<td>.57</td>
<td>.64</td>
<td>.72</td>
<td>.72</td>
</tr>
<tr>
<td>8. Penalties against individuals who sexually harass others at work are strongly enforced.</td>
<td>2.96</td>
<td>0.76</td>
<td>.50</td>
<td>.55</td>
<td>.61</td>
<td>.58</td>
</tr>
<tr>
<td>9. Actions are being taken to prevent sexual harassment.</td>
<td>3.54</td>
<td>0.83</td>
<td>.47</td>
<td>.51</td>
<td>.58</td>
<td>.59</td>
</tr>
</tbody>
</table>

*Note.* (*) denotes reverse scored item. Mean scores range from 1 to 5 with higher scores indicating greater endorsement of the individual statement. Factor loading values presented are standardized item loadings for Model 1, which specifies a single factor solution; standardized item loadings for Model 2, which specifies a three factor model assessing risk (items 1, 4, 7), seriousness (items 2, 5, 8) and actions (items 3, 6, 9); and standardized item loadings for Model 3, which specifies a two factor solution measuring risks (items 1, 4, 7) and seriousness/actions (items 2, 5, 8, 3, 6, 9).
(1) to strongly agree (5). Scale scores were computed by reverse scoring appropriate items and averaging across items, with higher scores indicating a greater intolerance of sexual harassment. We also included the Organizational Tolerance for Sexual Harassment Inventory (OTSHI; Hulin, 1993; Hulin et al., 1997) to assess convergent validity of the PCSH. The OTSHI presents respondents with six harassment scenarios that describe an employee experiencing potentially harassing behaviors from either a coworker or supervisor. The scenarios were followed by three response scales that assess the risk associated with reporting the behavior, perceived seriousness of the complaint, and probable actions taken against the harasser using a 5-point response scale. Scale scores were computed by averaging across items, with higher scores indicating greater intolerance for sexual harassment. The Cronbach alpha coefficient for the OTSHI scale was .94.

Sexual harassment experiences. We used an adapted version of the Sexual Experiences Questionnaire developed for the U.S. Department of Defense to assess women’s sexual harassment experiences (SEQ-DoD; Estrada & Berggren, 2009; Fitzgerald, Magley, Drasgow, & Waldo, 1999; Stark, Chernyshenko, Lancaster, Drasgow, & Fitzgerald, 2002). The SEQ-DoD contains multiple items assessing participants’ experiences of four general categories of unwanted sex-related behaviors including sexist behaviors (e.g., “put you down or was condescending to you because of your sex?”), crude or offensive behaviors (e.g., “repeatedly told sexual stories or jokes that were offensive to you?”), unwanted sexual attention (e.g., “made unwanted attempts to stroke, fondle or kiss you?”) and sexual coercion (e.g., “treated you badly for refusing to have sex?”). Instructions ask respondents whether they have experienced any unwanted sex-related behaviors from male coworkers or supervisors in the previous 24 months using a 5-point response scale ranging from never (0) to very often (4). Total scores were computed by averaging across items, with higher scores indicating more experiences of sexual harassment. The Cronbach alpha coefficient for the scale was .88.

Job Outcome Measures

Job satisfaction. We used nine items taken from the U.S. Air Force Organizational Assessment Package (Short, 1985) to measure job satisfaction. Items were presented in Likert-type format in which respondents indicated their level of satisfaction with various facets of their job (e.g., opportunities for training, job security, personal effort) on a scale ranging from very satisfied (1) to very dissatisfied (5). Scale scores were computed by reverse scoring all items and averaging them such that higher scores indicated greater job satisfaction. The Cronbach alpha coefficient for the scale was .80.
Organizational commitment. We used six items from the Organizational Commitment Questionnaire (Meyer & Allen, 1991) to measure organizational commitment (e.g., “I would be very happy to remain with this organization for the rest of my career”). Items were presented to respondents with a 5-point Likert-type response scale ranging from strongly disagree (1) to strongly agree (5). Scale scores were computed by averaging across items, with higher scores indicating greater affective attachment to the organization. The Cronbach alpha coefficient for the scale was .77.

Psychological Outcome Measures

Mental health status. We used the Mental Health Index (MHI; Veit & Ware, 1983) to assess psychological health. The MHI contains 14 items that assess participants’ mental health status (e.g., “how often have you felt lonely?”; “how often have you felt emotionally stable?”) on a 6-point scale ranging from none of the time (0) to all of the time (5). Scale scores were computed by averaging across items, with higher scores indicating better mental health. The Cronbach alpha coefficient for the scale was .93.

Psychological distress. We used the Crime-Related Post-Traumatic Stress Disorder scale (CR-PTSD; Saunders, Arata, & Kilpatrick, 1990) to assess psychological distress. Respondents were asked to indicate the amount of discomfort they experienced with various symptoms (e.g., trouble falling asleep, feelings of hopelessness) using a 5-point response scale ranging from none (1) to extreme (5). Scale scores were computed by averaging across items, with higher scores indicating greater psychological distress. The Cronbach alpha coefficient for the scale was .90.

Demographic Background Measures

Demographic questionnaire. Respondents also entered their current age, job, and organizational tenure on an open-response question; and they selected their marital status (e.g., [1] single, [2] married, [3] separated, divorced, or widowed), level of education (e.g., [1] less than a high school diploma to [5] advanced college work or degree) and civilian–military status (e.g., [1] civilian; [2] officer or cadet) from a list of categories within each variable.

RESULTS

We employed confirmatory factor analysis techniques to examine the structural properties of the PCSH scale and employed correlation analysis and hierarchical
linear regression analyses to examine the convergent and predictive validity of PCSV scores and women’s job and psychological outcomes.

Evaluation of Structural Models

We performed a confirmatory factor analysis to evaluate the hypothesized structure of the scale using EQS Version 6.1 (Bentler, 2004). Model 1 explores whether a single factor model assessing the general psychological climate for sexual harassment would fit the data. Therefore, our first test specified a measurement model containing nine items, all of which load on a single latent factor. Model 2 explores whether a two-factor model assessing risks and seriousness/actions would fit the data. Therefore, our second test specified a measurement model containing three items assessing risks (items 1, 4, 7 in Table 1), and six items assessing seriousness/actions (items 2, 5, 8, and 3, 6, 9 in Table 1) on each of two latent factors. Model 3 explores whether a three-factor model assessing risks, seriousness, and action would fit the data. Therefore, our third test specified a measurement model containing three items assessing risks (items 1, 4, 7 in Table 1), three items assessing seriousness (items 2, 5, 8 in Table 1), and 3 items assessing actions (items 3, 6, 9 in Table 1) on each of three latent factors. For each of these analyses, we analyzed the variance-covariance matrix using robust maximum likelihood estimation (Satorra & Bentler, 2001). We followed Hu and Bentler’s (1999) recommendations for evaluating model fit and defined acceptable model fit as values close to .95 for the CFI and NNFI (Bentler, 1990; Bentler & Bonnet, 1980) and an SRMR close to .08. Whenever possible, we used fit statistics generated from robust Satorra and Bentler (SB) χ² to accommodate multivariate non-normal data, Mardia’s (1970) coefficient (normalized) = 21.55, p < .001.

Table 1 presents descriptive statistics and factor loadings for each of the hypothesized models. As can be seen in Table 1, standardized item loadings ranged from .48 to .71 for Model 1, .50 to .76 for Model 2, and .47 to .76 for Model 3. Examination of model fit statistics suggests that of the three hypothesized models, the two-factor model was the most parsimonious model, MLχ² (26) = 94.00; SBχ² (26) = 75.97, p < .05; CAIC = -98.24; CFI = .918; NNFI = .886; SRMR = .056; ΔSBχ² (1) = 64.25, p < .05 (see Table 2). Moreover, the Satorra and Bentler (2001) scaled chi-square difference test revealed significant improvement in fit, with inclusion of the second factor relative to the single factor model, χ² (1) = 64.25, p < .001. This same pattern did not emerge, however, when the Seriousness/Action factor was further subdivided in the three-factor model, χ² (2) = 3.66, p = .16. Reliability analyses provide other support for the internal structure of this solution. Cronbach alpha coefficients were .83 for the total scale; .77 for the risk subscale; and .76 for the seriousness/actions subscale. Collectively, these results provide empirical support for the two-factor structure for the PCSV scale.
TABLE 2
Summary Results of Confirmatory Factor Analyses for Hypothesized Models (n = 303)

<table>
<thead>
<tr>
<th>Model Fit Statistics</th>
<th>df</th>
<th>ML $\chi^2$</th>
<th>SB $\chi^2$</th>
<th>CAIC</th>
<th>CFI</th>
<th>NNFI</th>
<th>SRMR</th>
<th>$\Delta$SB $\chi^2$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Factor Model</td>
<td>27</td>
<td>142.86*</td>
<td>117.13*</td>
<td>−63.78</td>
<td>.852</td>
<td>.803</td>
<td>.069</td>
<td>—</td>
</tr>
<tr>
<td>Two Factor Model</td>
<td>26</td>
<td>94.00*</td>
<td>75.97*</td>
<td>−98.24</td>
<td>.918</td>
<td>.886</td>
<td>.056</td>
<td>64.25* (1)</td>
</tr>
<tr>
<td>Three Factor Model</td>
<td>24</td>
<td>88.41*</td>
<td>72.88*</td>
<td>−87.93</td>
<td>.920</td>
<td>.880</td>
<td>.054</td>
<td>3.66 (2)</td>
</tr>
</tbody>
</table>

Note. ML = Maximum likelihood; SB = Satorra-Bentler (1994); CAIC = consistent Akaike’s information criterion (Bozdogan, 1987); CFI = Comparative fit index (Bentler, 1990); NNFI = Nonnormed fit index (Bentler & Bonett, 1980); SRMR = Standardized root mean square residual. Contemporary cutoff criteria for close fit suggest NNFI and CFI values close to .95 with an SRMR close to .08 (Hu & Benter, 1999). Lower CAIC values indicate better compromise between model fit and parsimony. *p < .05.

Relationships Among PCSH Scores and Job and Psychological Outcomes

Table 3 shows the means, standard deviations, and Pearson correlation coefficients for each of the variables in the study. On average, women reported moderate levels of job satisfaction, organizational commitment, and (positive) mental health; lower levels of psychological distress and sexual harassment; and moderate levels of intolerance of sexual harassment at both the individual and organizational levels. Consistent with our expectations, we found that higher scores on both the PCSH—Risk and PCSH—Seriousness/Action subscales (i.e., greater

TABLE 3
Scale Means, Standard Deviations, and Pearson Correlation Coefficients (n = 308)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Job Satisfaction</td>
<td>3.79</td>
<td>.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Organizational Commitment</td>
<td>3.13</td>
<td>.72</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mental Health Status</td>
<td>4.16</td>
<td>.83</td>
<td>.47</td>
<td>.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Psychological Distress</td>
<td>1.97</td>
<td>.96</td>
<td>−.33</td>
<td>−.22</td>
<td>−.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sexual Harassment Experiences</td>
<td>1.25</td>
<td>.29</td>
<td>−.28</td>
<td>−.21</td>
<td>−.33</td>
<td>.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Organizational Tolerance for SH</td>
<td>3.51</td>
<td>.66</td>
<td>.35</td>
<td>.27</td>
<td>.37</td>
<td>−.30</td>
<td>−.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. PCSH—Risk</td>
<td>3.17</td>
<td>1.00</td>
<td>.27</td>
<td>.25</td>
<td>.31</td>
<td>−.27</td>
<td>−.44</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>8. PCSH—Seriousness/Actions</td>
<td>3.55</td>
<td>.60</td>
<td>.36</td>
<td>.38</td>
<td>.34</td>
<td>−.26</td>
<td>−.51</td>
<td>.67</td>
<td>.60</td>
</tr>
</tbody>
</table>

Note. Mean scores can range from 1 to 5, with higher scores indicating higher levels of job satisfaction and organizational commitment; increased mental health; lower levels of psychological distress; increased experiences of sexually harassing behaviors; and greater intolerance for sexual harassment at the organizational and individual level. All correlations are statistically significant, $p < .05$. 
intolerance of sexual harassment) were associated with increased job satisfaction and organizational commitment. We also found that higher scores on both subscales were associated with better mental health and lower psychological distress. Additionally, we also found that the PCSH—Risk and PCSH—Seriousness/Action subscales were significantly correlated with OTSHI scores, providing evidence of the convergent validity of the PCSH scales.

Next, we performed a series of hierarchical linear regression analyses to examine the predictive validity of PCSH subscale scores on women’s job and psychological outcomes (see Table 4). In these analyses, we controlled for previous sexual harassment experiences by entering individual SEQ scores in the first step of the regression and added PCSH subscale scores on the second step. For all regressions, all Tolerance statistics were above .10 and Variance Inflation Factors (VIF) were below 10, suggesting that multicollinearity was not present in our data (Stevens, 2001).

Regression analyses of PCSH scores on job and psychological outcomes were significant, for job satisfaction, $F(3, 306) = 17.962, p < .001, R^2 = .15$, and organizational commitment, $F(3, 306) = 18.120, p < .001, R^2 = .15$; and for mental health status, $F(3, 306) = 20.423, p < .001, R^2 = .17$, and psychological distress, $F(3, 306) = 19.476, p < .001, R^2 = .16$. Table 4 presents the results

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Job Satisfaction</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$</td>
<td>$SE$</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment Experience</td>
<td>$-.52$</td>
<td>$.09$</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment Experience</td>
<td>$-.22$</td>
<td>$.11$</td>
</tr>
<tr>
<td>PCSH Risk</td>
<td>$.03$</td>
<td>$.03$</td>
</tr>
<tr>
<td>PCSH Seriousness-Action</td>
<td>$.23$</td>
<td>$.06$</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment Experience</td>
<td>$-.96$</td>
<td>$.15$</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harassment Experience</td>
<td>$-.55$</td>
<td>$.17$</td>
</tr>
<tr>
<td>PCSH Risk</td>
<td>$.11$</td>
<td>$.05$</td>
</tr>
<tr>
<td>PCSH Seriousness-Action</td>
<td>$.22$</td>
<td>$.09$</td>
</tr>
</tbody>
</table>

Note. Mean scores range from 1 to 5, with higher scores indicating higher levels of job satisfaction and organizational commitment; increased (positive) mental health; lower levels of psychological distress; increased experiences of sexually harassing behaviors; and greater intolerance for sexual harassment. All $\Delta R^2$ coefficients are statistically significant, $p < .001$ unless noted otherwise.
of regression analyses of PCSH scores on each of the job and psychological outcomes included in this study. Inspection of the standardized regression coefficients suggests that among the PCSH subscale scores, PCSH—Seriousness/Action subscale scores were the primary source of the relationship between climate for sexual harassment and job satisfaction; and between climate for sexual harassment and organizational commitment. A different pattern emerged with regard to the psychological outcomes. Inspection of the standardized regression coefficients for the psychological outcomes suggests that both PCSH—Risks and PCSH—Seriousness/Action scores predicted mental health ratings but not psychological distress ratings. Thus, it appears that PCSH subscales scores may differentially predict these outcomes.

DISCUSSION

We evaluated the structural and psychometric properties of a brief measure of Psychological Climate for Sexual Harassment (PCSH) with data from women officers and cadets in the Swedish Armed Forces. Results of factor analyses indicate that the PCSH scale assesses a multidimensional construct that includes two factors that assess risks and seriousness/actions associated with sexual harassment episodes. Psychometric analyses of these data show that the PCSH scale is reliable and has strong evidence of convergent validity with the OTSHI (Hulin, 1993; Hulin et al., 1997), and predictive validity with job and psychological outcomes. These results provide empirical support for the structure and psychometric properties of the scale in the unique cultural context of Sweden. We discuss the theoretical, methodological, and practical contributions and limitations of our study for the measurement of psychological climate for sexual harassment in organizations.

Our findings are consistent with the theoretical conceptualization of the psychological climate for sexual harassment construct (e.g., Hulin, 1993; Hulin et al., 1997). Our results showed that the interrelations among items were best described in terms of a two-factor model that assessed perceptions of risk, and perceptions of seriousness and actions associated with sexually harassing episodes. These findings are consistent with theoretical definitions proposed by Hulin and his colleagues (Hulin, 1993; Hulin et al., 1997) that suggest that psychological climate can be conceptualized in terms of an individual level of perception of risks, as well as individual level of perception of the seriousness/actions associated with sexually harassing events. Our findings are also consistent with recent research by Lytell (2007) and Cohorn et al. (2001) that propose linkages between perceptions of the seriousness and perceptions of actions taken in response to sexual harassment episodes. In fact, Hulin et al. (1997) argued that an individual may need to perceive that a complaint will be taken seriously before corresponding actions from the organization can be acknowledged. From this perspective, then,
it is reasonable that perceptions regarding the seriousness of a complaint ought to influence perceptions regarding organizational responses to harassment episodes. However, it is important to also recognize that an individual’s experience with past responses (i.e., actions) may also influence individual perceptions regarding the seriousness with which a complaint may be addressed. Regardless, it is clear that future research may be needed to further evaluate the validity of these findings.

Validity evidence showed that perceptions of psychological climate for sexual harassment were associated with job and psychological outcomes in theoretically meaningful ways. We found that perceptions of the psychological climate for sexual harassment (i.e., intolerance for sexual harassment) were associated with increased job satisfaction and organizational commitment, as well as with better mental health and decreased psychological distress. These findings are consistent with extant theory and research on psychological climate for sexual harassment, which posit that working in an environment that is perceived to be tolerant of sexually harassing behaviors can have a negative impact on employee job and psychological outcomes (Chan et al., 2008; Willness et al., 2007). Importantly, these findings provide evidence that the observed relationships between psychological climate and employees’ job and psychological outcomes observed in studies involving U.S.-based institutions and organizations can be generalized to the Swedish context. This is a particularly noteworthy contribution to this literature, as the majority of research examining sexual harassment across cultures has been limited to documenting incidence and prevalence of rates for sexual harassment of women at work (e.g., DeSouza & Solberg, 2003; Gruber, 1997; Timmerman & Bajema, 1999). Our study is among the first studies to document the generalizability of the sexual harassment climate-outcome relationship outside of the U.S. context.

Results of regression analyses suggest that ratings of specific facets of the psychological climate for sexual harassment appear to differentially predict job and psychological outcomes. We found that while PCSH—Risk scores were not predictive of the job outcomes we examined, PCSH—Seriousness/Action scores were uniquely predictive of both job satisfaction and organizational commitment. We also found that both PCSH—Risk and PCSH—Seriousness/Action scores were uniquely predictive of mental health status but not psychological distress. Though the pattern of findings is not consistent across each of the outcomes we examined, the findings are consistent with those reported by Hulin and colleagues (1993; Hulin et al., 1997), Fitzgerald et al. (1999), and Offerman and Malamut (2002), who showed that psychological climate accounted for significant variation in job and psychological outcomes over and above that which could be accounted for by the respondent’s sexual harassment experiences. These findings underscore the importance of context variables, like psychological climate for sexual harassment, in understanding variation in job-related attitudes and behaviors. Individual perceptions of the workplace are particularly relevant when seeking to understand individual outcomes, because it is people’s perceptions of their environment that
influence their feelings, thoughts, and behaviors. Moreover, our findings suggest that individual perceptions need not be a veridical assessment of the organizational environment, nor must they necessarily agree with others’ perceptions of the same environment to be meaningful and consequential. That is, environmental factors alone (i.e., psychological climate for sexual harassment) may be sufficient to trigger the negative effects of sexual harassment without necessitating direct exposure to sexually harassing behaviors.

From a methodological perspective, the development of a brief measure of psychological climate for sexual harassment represents an important and much needed empirical contribution to this literature. Existing measures of psychological climate for sexual harassment tend to comprise atheoretical questions that are written in pragmatic terms and have limited psychometric properties (e.g., Cohorn et al., 2001; Offerman & Malamut, 2002). Moreover, the few instruments that enjoy theoretical and psychometric support (e.g., OTSHI, Hulin et al., 1997) tend to be excessively lengthy and cumbersome to administer within large-scale survey programs. In contrast, the PCSH is a theoretically derived measure designed to assess perceptions associated with sexual harassment episodes with considerable theoretical and psychometric support. Confidence in our results is bolstered by the fact that our sample includes a random representative sample from the population of women officers employed in one of the largest employers within Swedish society—the Swedish Armed Forces. While the generalizability of our findings to nonmilitary organizations within Sweden remains to be established, the methodological strengths of the study give us reason to have confidence in the generalizability of these findings to nonmilitary populations within the Swedish context. Thus, our work not only serves to contribute to the empirical literature in this area, but it also serves to satisfy a practical need for theoretically driven and empirically validated measures of psychological climate for sexual harassment that can be used within large-scale assessment of an organization’s climate.

These strengths notwithstanding, we recognize several limitations inherent in our study that are worth addressing in future research. The cross-sectional nature of these data precludes our ability to examine the dynamic nature of psychological climate for sexual harassment in relation to job and psychological outcomes. It would be useful to conduct longitudinal studies to examine how perceptual changes in psychological climate for sexual harassment influence job and psychological outcomes over time. We were unable to examine higher-order relationships associated with shared perceptions among employees within the same environment (i.e., organizational climate for sexual harassment). While it would have been informative to be able to aggregate individual perceptions by unit/department, practical concerns regarding anonymity and confidentiality for military respondents limited our ability to include variables that would allow us to group individuals into identifiable groups within the organizational structure of the Swedish Armed Forces. The study did not include data on men’s perceptions of the sexual harassment climate. It would be useful to examine how men’s perceptions
of the psychological climate differ from those of women; and whether differential perceptions in psychological climate are associated with differential impact on job and psychological outcome variables. Finally, it is important to acknowledge that our study is subject to limitations associated with self-report data (e.g., subjective recall bias).

In summary, our study provides evidence of the structural and psychometric properties of the Psychological Climate for Sexual Harassment (PCSH) scale. Our findings suggest that the PCSH scale is a valid and reliable tool for assessing psychological climate for sexual harassment. While additional research may be needed to further examine the properties of the PCSH scale with diverse populations, we believe the development and validation of this scale represents an important step toward addressing the need for brief measures of this construct that are theoretically derived and psychometrically supported.

REFERENCES


APPENDIX

Psychological Climate for Sexual Harassment (Swedish Version)

I detta avsnitt ställs frågor om dina TANKAR och ÅSIKTER i olika arbetsrelaterade frågor. Överväg varje påstående nedan och **kryssa för** de alternativ som **bäst** beskriver din åsikt.

<table>
<thead>
<tr>
<th>Vid ditt nuvarande tjänstgöringsställe</th>
<th>Instämmer Definitivt Inte</th>
<th>Instämmer Inte</th>
<th>Varken Instämmer Eller Inte</th>
<th>Instämmer</th>
<th>Instämmer Helt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Det skulle vara riskfyllt att lämna in en anmälan om sexuella trakasserier.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>En anmälan om sexuella trakasserier skulle inte blitagen på allvar</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>En anmälan om sexuella trakasserier skulle bli föremål för en noggrann undersökning</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Jag skulle känna mig väl till mods att anmäla sexuella trakasserier vid mitt nuvarande tjänsteställe.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Sexuella trakasserier tillåts inte vid mitt nuvarande tjänsteställe</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Individer som utövar sexuella trakasserier slipper undan.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Jag skulle tveka att lämna in en anmälan om sexuella trakasserier.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Straff för individer som trakasserar andra sexuellt på arbetsplatsen drivs resolut igenom.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Åtgärder vidtas för att förhindra sexuella trakasserier.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
</tbody>
</table>

*Note.* The English versions of the items are presented in similar order in Table 1.