ORIGINAL PAPER

Predictors of Sexual Coercion Against Women and Men: A Multilevel, Multinational Study of University Students

Denise A. Hines

Received: 29 September 2005 / Revised: 12 June 2006 / Accepted: 3 September 2006 / Published online: 27 February 2007 © Springer Science+Business Media, LLC 2007

Abstract Several explanations have been forwarded to account for sexual coercion in romantic relationships. Feminist theory states that sexual coercion is the result of male dominance over women and the need to maintain that dominance; however, studies showing that women sexually coerce men point towards weaknesses in that theory. Some researchers have, therefore, suggested that it is the extent to which people view the other gender as hostile that influences these rates. Furthermore, much research suggests that a history of childhood sexual abuse is a strong risk factor for later sexual victimization in relationships. Few researchers have empirically evaluated the first two explanations and little is known about whether sexual revictimization operates for men or across cultures. In this study, hierarchical linear modeling was used to investigate whether the status of women and adversarial sexual beliefs predicted differences in sexual coercion across 38 sites from around the world, and whether sexual revictimization operated across genders and cultures. Participants included 7,667 university students from 38 sites. Results showed that the relative status of women at each site predicted significant differences in levels of sexual victimization for men, in that the greater the status of women, the higher the level of forced sex against men. In addition, differences in adversarial sexual beliefs across sites significantly predicted both forced and verbal sexual coercion for both genders, such that greater levels of hostility towards women at a site predicted higher levels of forced and verbal coercion against women and greater levels of hostility towards men at a site predicted higher levels of forced and verbal coercion against men. Finally, sexual revictimization occurred for

D. A. Hines (🖂)

both genders and across all sites, suggesting that sexual revictimization is a cross-gender, cross-cultural phenomenon. Results are discussed in terms of their contributions to the literature, limitations of the current study, and suggestions for future research.

Keywords Sexual coercion · Child sexual abuse · Feminist theory · Sexual revictimization · Cross-cultural

Introduction

Studies of college students in the United States show high rates of both verbal and forced sexual coercion in dating relationships (e.g., Fiebert & Tucci, 1998; Forbes & Adams-Curtis, 2001; Poppen & Segal, 1988). Verbal sexual coercion usually involves either insisting on or threatening one's partner into engaging in sexual activity. Forced sexual coercion, on the other hand, involves the use of physical force to make one's partner engage in sexual activity. Several explanations have been proposed to account for these disturbingly high rates; however, few empirical studies have examined them in depth. For example, feminist theory purports that sexual violence against women is a consequence of men asserting their power and rights to have sex within romantic relationships, and women's socialization to assume passive and submissive roles within sexual relationships and to not assert their wishes to their male partners (Kanin, 1985; Russell, 1975; Warshaw & Parrot, 1991). However, evidence that sexual coercion occurs against men and in gay/lesbian relationships (e.g., Struckman-Johnson, 1988; Waterman, Dawson, & Bologna, 1989) suggests that feminist theory needs to be broadened, and thus others have postulated that it is the degree to which people view romantic relationships as adversarial that influences the extent to which sexual coercion occurs

Department of Criminal Justice, University of Massachusetts, Lowell, 870 Broadway St., Lowell, Massachusetts 01854, USA e-mail: denise_hines@uml.edu

(e.g., Anderson, 1996). Few studies have empirically evaluated these two explanations in a multinational perspective; moreover, those that have have been unable to differentiate which explains cross-national differences in rates of sexual coercion (e.g., Lottes & Weinberg, 1996). Therefore, one purpose of the current study was to evaluate whether feminist theory and/or adversarial sexual beliefs accounted for any differences in rates of sexual coercion across 38 sites from around the world.

In addition, one explanation for sexual coercion that has received much support in the literature is sexual revictimization. That is, one of the most consistent predictors of sexual coercion victimization in adult relationships is history of child sexual abuse (CSA) (e.g., Muehlenhard, Highby, Lee, Bryan, & Dodrill, 1998). However, little is known concerning whether this sexual revictimization occurs for people other than women in heterosexual relationships. Studies of sexual coercion in romantic relationships have traditionally only examined men as perpetrators and women as victims (e.g., Roodman & Clum, 2001; Russell, 1975). Although this is the stereotypical configuration of perpetrators and victims, these studies have overlooked sexual coercion perpetrated by women against men. This omission is important because research has consistently shown men can be victimized sexually by their female romantic partners (e.g., Krahé, Scheinberger-Olwig, & Bieneck, 2003; Struckman-Johnson, 1988). Furthermore, because the bulk of studies on sexual revictimization have been conducted in the United States, little research has been conducted on this association in other cultures as well, particularly non-Western cultures, and there could be important cultural variations in this association (Urquiza & Goodlin-Jones, 1994). Thus, a history of CSA could be an important predictor of sexual coercion victimization not only for women in the United States, but also for women in other countries and men. A second purpose of the current study was, therefore, to evaluate the extent to which a history of CSA predicted sexual coercion victimization across genders and 38 sites from around the world.

Prevalence of sexual coercion

Rates of sexual coercion differ depending upon the definition used and the study population. Higher rates of sexual coercion are obtained when definitions include sexual behaviors that do not necessarily include sexual intercourse. For example, when forced touching of sexual parts was included as part of the definition, approximately 25–33% of college women reported experiencing such behaviors (e.g., Fiebert & Osburn, 2001), but when forced oral, anal, and/or vaginal intercourse was the criterion for behaviors that are coerced, less than 10% of college women reported experiencing such coercion (e.g., Fiebert & Osburn, 2001; Forbes & Adams-Curtis, 2001). Research on rates of sexual coercion has taken place primarily in North America. However, there are some international studies on the rates of forced sex against women. For example, the recent World Health Organization's (WHO) study on domestic violence against women provided pastyear prevalence rates of sexual violence against women by their intimate partners in ten countries (WHO, 2005). Based on the self-reports of 24,000 women, the WHO reported that forced sex by intimate partners ranged from 4% in Serbia and Montenegro to 46% in Bangladesh and Ethiopia.

Although women tend to report more victimization than men (e.g., Aizenman & Kelley, 1988; Baier, Rosenzweig, & Whipple, 1991; Burke, Stets, & Pirog-Good, 1988; Lottes & Weinberg, 1996; Rouse, 1988; Stets & Pirog-Good, 1989), studies consistently show that men can be sexually victimized by women as well. Specifically, by both men's and women's reports, the rates of verbal sexual coercion against men by women are consistently estimated to be between 10 and 20% (e.g., Aizenman & Kelley, 1988; Anderson, 1998; Baier et al., 1991; Burke et al., 1988; Fiebert & Tucci, 1998; Krahé et al., 2003; Lottes, 1991; Stets & Pirog-Good, 1989; Struckman-Johnson, 1988; Struckman-Johnson & Struckman-Johnson, 1994), whereas physically forced sexual intercourse by women against men is estimated to be between 1 and 3% (Anderson, 1998; Baier et al., 1991; Fiebert & Tucci, 1998; Krahé et al., 2003; Rouse, 1988; Spitzberg, 1999; Struckman-Johnson, 1988; Struckman-Johnson & Struckman-Johnson, 1994).

Feminist theory

Feminist theorists typically argue that the roots of sexual coercion are grounded in the power imbalances that are inherent in the patriarchal construction of society. In such a society, men are dominant and women are subjugated in the physical, political, economic, and legal realms, and therefore men have authority over women. These power imbalances are then reflected in the dynamics of heterosexual romantic relationships. Thus, within intimate relationships, women have little control over what happens to them sexually and are vulnerable to pressure for sexual intercourse by men who control when, where, and how sexual encounters take place (Dixon-Mueller, 1993). In addition, women are socialized to be passive and reactive in heterosexual interactions, whereas men are socialized to be active in their sex lives, to assert their sexuality, and to overcome women's resistance to have sex by using pressure and coercion (Russell, 1975). Sexual coercion and aggression are men's means of maintaining a social order in which they are dominant, and, therefore, should be more prevalent in societies in which women are regarded as the possessions of men because men sustain their power by asserting, either through force or other means, their sexual rights over women (Clark & Lewis, 1977).

There is some support for this feminist theory of sexual coercion. For example, adherence to traditional sex roles is related to the perpetration of sexual abuse by men (e.g., Koss, Leonard, Beezley, & Oros, 1985; Muehlenhard & Linton, 1987). People with more masculine identities are more likely to coerce sex, whereas those with more feminine identities are more likely to be the victims of sexual coercion in romantic relationships (Poppen & Segal, 1988). Furthermore, Sanday (1981) found in her study of tribal societies that in tribes where women were not allowed to participate in positions of power and their contributions to society were deemed as insignificant, the incidence of rape was high. However, in societies in which women were viewed as equal and there was essentially an equal balance of power and an appreciation of the contributions of women, rape was non-existent. One purpose of the current study was, therefore, to investigate whether rates of sexual coercion against women varied among different sites around the world according to the status of women at each site.

Although feminist theory may be useful in explaining sexual coercion by men against women, it may not be that helpful in explaining sexual coercion by women against men. Some theorists argue that this reverse situation is a result of increasing power of women (Anderson & Aymami, 1993) and that studying female perpetration of sexual coercion and aggression is a vital feminist issue (White & Kowalski, 1994). Specifically, researchers who have studied femaleperpetrated sexual coercion suggest that because in some societies women are gaining increasing power in social, political, and economic roles that were traditionally reserved for men, it is possible that gender roles in other areas are also shifting for women; that is, this trend towards breaking from traditional gender roles on a societal level may be generalizing to their heterosexual romantic relationships, and women may be initiating and coercing sexual contact much more frequently (Anderson & Aymami, 1993). Consistent with this notion, studies have shown that traditional gender roles are declining in heterosexual relationships (e.g., Lawson, 1988; O'Sullivan & Byers, 1992; Safilios-Rothschild, 1977), that more and more people hold nontraditional and egalitarian attitudes regarding female sexuality (Lottes, 1985, 1991), and that women who hold less traditional social roles are more likely to perpetrate sexual abuse and forced sex against their male dating partners (Anderson, 1998). The current study empirically evaluated this theory by investigating whether men reported higher rates of victimization from sexual coercion in societies in which women are gaining social, political, and economic power.

Adversarial sexual beliefs

Although the status of women in society may influence rates of sexual coercion in romantic relationships, some researchers assert that because women are sexually coercive towards men, alternative explanations for the perpetration of sexual coercion need to be devised (e.g., Anderson, 1996). One such explanation that has its roots in feminist theory is the notion that sexual coercion is a product of adversarial sexual beliefs. According to feminist theory, sexual coercion is the way that men express hostility towards women (Russell, 1975). This notion can be broadened to encompass all possible variations of sexually coercive relationships. That is, people with adversarial sexual beliefs may be more likely to commit sexual coercion in their romantic relationships.

This notion is supported by research in the United States that shows that men who perpetrate sexual coercion against women believe that sexual relationships are deceptive, manipulative, and exploitative (Burt, 1980), and are expressing their hostility towards women (Brownmiller, 1976). Women who perpetrate sexual coercion against men have been shown to express adversarial sexual beliefs (Anderson, 1996), view relationships as a means of gaining power and control in relationships (Craig Shea, 1998), have relationships that are characterized by game playing (Craig Shea, 1998), and view men as sexual adversaries (Struckman-Johnson, 1991). Because societies differ in the extent to which they view sexual relationships as antagonistic versus mutually pleasurable (Dixon-Mueller, 1993), the extent to which sexual coercion occurs in a society could be partly related to how hostile each gender is towards the other in that culture. Thus, another purpose of the current study was to examine the extent to which societies differed in their expressed gender hostility explained differences in sexual coercion victimization for both men and women.

Sexual revictimization

One of the strongest and most consistent risk factors for the victimization of sexual aggression in adult romantic relationships is a history of CSA. Studies using various types of samples, including college students (e.g., Gidycz, Coble, Latham, & Layman, 1993), clinical samples (e.g., Cloitre, Tardiff, Marzuk, Leon, & Portera, 1996), military personnel (e.g., Merrill et al., 1999), community samples (e.g., Russell, 1986), and nationally representative samples (Desai, Arias, Thompson, & Basile, 2002) have consistently provided evidence of this sexual revictimization. In addition, a recent meta-analysis showed that the effect size for the association between CSA and adult sexual victimization was .59, which suggests a moderate effect (Roodman & Clum, 2001).

Although sexual revictimization seems to be a robust phenomenon, the studies that have investigated it were mostly confined to situations in which women were the victims and men were the perpetrators. Preliminary studies provide evidence, however, that sexual revictimization also occurs for men. For example, among male college students, those who experienced CSA were significantly more likely than those who did not to experience adult sexual victimization (65.2% versus 29.8%) (Stevenson & Gajarsky, 1991). Among a community sample of men in England, those who had a history of CSA were four times more likely to have been sexually assaulted as adults (King, Coxell, & Mezey, 2000). In the National Violence Against Women Survey (Desai et al., 2002), men who experienced CSA were six times more likely to be sexually abused as adults, and 10–13 times more likely to experience sexual abuse from an intimate partner.

Although there is preliminary evidence that sexual revictimization occurs for men involved in adult heterosexual romantic relationships, there is little research on the relative strength of this phenomenon across genders. Furthermore, although several studies have documented that sexual revictimization occurs in nations outside the U.S. (Australia: Fleming, Mullen, Sibthorpe, & Bammer, 1999; Swanston et al., 2002; Canada: Randall & Haskell, 1995; England: Coid et al., 2001; Native Americans: Bohn, 2003; New Zealand: Fergusson, Horwood, & Lynskey, 1997), there is little research documenting differences in this association across cultures. Few investigators have attempted to recruit ethnically diverse samples within the United States or across nations, and those that have show that this association for women may differ depending on ethnicity (e.g., Roodman & Clum, 2001; Urquiza & Goodlin-Jones, 1994). Thus, a final purpose of this study was to investigate whether sexual revictimization occurred for both men and women, and whether this association varied across 38 sites from around the world.

Hypotheses and research questions

The current study had four main purposes:

- (1) To investigate whether differing rates of verbal and forced sexual coercion victimization across 38 sites from around the world were due to varying degrees of the status of women in societies. It was hypothesized that societies in which women have relatively greater status, sexual coercion rates against women would be lower, whereas rates against men would be higher.
- (2) To investigate the extent to which differing rates of sexual coercion victimization across sites were due to varying levels of adversarial sexual beliefs. It was hypothesized that higher levels of gender hostility towards men and women at each site would be associated with higher levels of sexual coercion against men and women, respectively.
- (3) To investigate the association between a history of CSA and current victimization of sexual aggression for both men and women. It was hypothesized that a history of CSA would predict sexual aggression victimization for both genders.

(4) To investigate whether sexual revictimization varied across sites. Because only a few studies investigated this possibility (Roodman & Clum, 2001; Urquiza & Goodlin-Jones, 1994), and these studies showed weak results and studied only women, there were no specific hypotheses concerning the differences in this association across sites.

Method

Participants

The data for this article were from the International Dating Violence Study (IDVS). The IDVS was conducted by members of a consortium of researchers at universities in various regions of the world. The questionnaires were usually administered in classes taught by members of the consortium and in other classes for which they could make arrangements. Thus, it was a convenience sample. Almost all of the classes were introductory level psychology, sociology, and criminal justice studies courses; thus, the majority of the sample consisted of female college students.

Questionnaires were distributed at the beginning of the class period. The purpose of the study and that participation was entirely voluntary was explained and was also on the cover page of the questionnaire. The students were informed that the questionnaire was about dating relationships and that it would include sensitive questions concerning attitudes, beliefs, and experiences in a relationship, including questions on sexual behavior. They were guaranteed anonymity and confidentiality of their responses, and they were told that the session would take about an hour. Students completed the questionnaire at their own pace and deposited the completed (or if they chose, blank) questionnaire in a box and left the room when they finished. A debriefing form was provided as they turned in their questionnaire. It explained the study in more detail and provided names and telephone numbers of local mental health services and community resources, such as services for battered women.

The percentage of students who chose to participate and deposited a completed questionnaire ranged from 42 to 100%, with most participation rates ranging from 85 to 95%. A detailed description of the study, including the questionnaires and all other key documents, is available on the study website, http://pubpages.unh.edu/ \sim mas2, and a report on some of the preliminary results is available (Straus & Members of the International Dating Violence Research Consortium, 2004).

The completed questionnaires were examined for questionable response patterns, such as reporting an injury from dating violence but not reporting an assault as having occurred, or cases with an implausible response, such as attacking a partner with a knife or gun ten or more times in the past year. About 7.5% of the cases were identified as questionable and were removed from the sample. In addition, students who did not complete the measure of dating aggression or who reported that they were not currently or recently (i.e., in the past year) involved in a romantic relationship were eliminated from the analyses. Students involved in gay/lesbian relationships (4% of male sample, 2% of female sample) were also removed from the analyses due to their small sample size. This process of elimination resulted in a sample of 2,084 male and 5,583 female students involved in heterosexual romantic relationships within the previous year.

Demographic characteristics of the sample are shown in Tables 1 (men) and 2 (women). These characteristics are presented for the sample overall and for each site. As shown for the men (Table 1), sample sizes ranged from 10 men at the Washington, DC site to 152 men at the Swedish site. The average age of the sample was 23.11 years. The mean length of relationship for the sample was 13.39 months, and close to 75% of the relationships were sexual. For women (Table 2), the sample sizes ranged from 37 at the Houston site to 493 at the Swedish site. The mean sample age was 23.31 years. Women reported an average relationship length of 15.37 months, and sex was part of the relationship in 79% of the cases.

Measures

There was a core questionnaire that each member of the IDVS Research Consortium translated. All consortium members agreed to back-translate to maintain conceptual equivalence (Straus, 1969) across the sites. This core questionnaire consisted of demographic items (e.g., gender, gender of partner, whether sex was part of the relationship, age of participant, parents' education and income, length of relationship), the Revised Conflict Tactics Scales (CTS2, Straus, Hamby, Boney-McCoy, & Sugarman, 1996), and the Personal and Relationships Profile (PRP; Straus, Hamby, Boney-McCoy, & Sugarman, 1999). In addition, the consortium members added questions to measure variables that were uniquely important for their site or constructs that were needed to test a theory of particular interest. These procedures allowed the benefits of both standardized measures for all the sites and of culturally informed investigations of unique issues at each university. For the current study, only the demographic information and questions pertaining to sexual coercion victimization, CSA, gender hostility, and social desirability were used. In this description of the measures, first individual-level variables will be discussed and then site-level variables.

Individual-level measures

Sexual coercion victimization. Victimization from sexual coercion by intimate partners was measured by the Sexual

Coercion scale of the CTS2. For each participant, the number of sexually coercive acts sustained in the previous year was computed. Participants indicated on a scale from 0 to 6 how many times in the previous year they sustained the acts listed (0=0 times; 1=1 time; 2=2 times; 3=3-5times; 4 = 6-10 times; 5 = 11-20 times; 6 =more than 20 times). Items were then divided according to whether they represented verbally coerced sex (i.e., partner insisted on or used threats to obtain oral, anal, or vaginal sex) or physically forced sex (i.e., partner physically forced oral, anal, or vaginal sex). To establish past-year prevalence rates of each of these two types of sexual coercion victimization, participants were coded as 1 (= yes) if they reported sustaining any of the corresponding sexually coercive acts in the previous year and 0 (= n0) if they reported sustaining no sexually coercive acts in the previous year. The Sexual Coercion scale of the CTS2 has demonstrated good cross-cultural construct validity and reliability, with an overall alpha of .82 (Straus, 2004). Verbal and forced sexual coercion were analyzed separately because of research showing that sexual revictimization may be stronger when stricter definitions of sexual coercion are used (Roodman & Clum, 2001).

Childhood sexual abuse. Childhood sexual abuse was measured using the 8-item Sexual Abuse History (SAH) scale of the PRP. The SAH contains items pertaining to whether participants experienced contact and/or non-contact sexual abuse with family members, peers, and/or non-family adults prior to the age of 18 (see Appendix for a list of the questions). Participants indicated whether they agreed/strongly agreed or disagreed/strongly disagreed with each of the eight items. The scale was scored by adding all of the items to which the participant reported agreeing/strongly agreeing. Thus, the score on the SAH represents the number of different types of sexual abuse experiences each participant experienced as a child and/or adolescent, with a maximum number of eight experiences. Reports of preliminary psychometric properties of this scale indicate that it has strong internal consistency reliability (Straus & Mouradian, 1999). For the current study, the overall alpha coefficient was .73 for men and .72 for women, and it ranged from a low of .22 for men at the Lithuanian site to a high of .95 for men at the Washington, DC site. For both genders, alpha coefficients tended to be lower at sites where there was either a small sample size or low endorsement of SAH items. It is important to consider that the different items in the SAH scale may not necessarily be correlated because they represent distinct types of sexual abuse; therefore, low alpha coefficients do not necessarily indicate that the scale has low reliability. It is also important to note that the count of SAH items, rather than a dichotomous measure, was used as a predictor because research shows that it is the *level* of previous victimization, not necessarily the existence of previous victimization, that

| Interfact of a control of contro of contro of control of control of control of control of contro | T | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|------------------------|-----------------------------------------------|--------------------------------|--------------|----------------------|--------------|------------------------------------------------------|
| ind 2084 211 (5.50) (5.39 (8.5)) 74.2 2.8 2.00 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 200 | Site | Ν | Age in years M (SD) | Length of relationship in months M (SD) | % Sex part of the relationship | % Forced sex | % Verbal coercion | % with a SAH | # of SAH items endorsed <i>M</i> (<i>SD</i>) |
| ma, Hong Kong 6 24.63 (4.3) $12.77(7.79)$ 13.3 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5 | Combined | 2,084 | 23.11 (5.50) | 13.39 (8.82) | 74.2 | 2.8 | 22.0 | 29.9 | 0.55 (1.12) |
| im. Hong Kong 60 $245(4,3)$ $12.77(7.7)$ 13.3 6.7 26.7 26.7 gape 5 $715(5.54)$ $1309(8.64)$ 200 00 00 240 gape 5 $715(5.54)$ $1556(8.53)$ $1556(8.53)$ $1556(8.53)$ 520 00 00 00 240 gape 2 $250(617)$ $954(7.3)$ 840 00 120 200 250 stalia, Achidie 2 $200(617)$ $954(7.3)$ 840 00 12.0 200 and, Humilon 2 $200(617)$ $954(7.3)$ $184(7.2)$ 650 653 281 272 and, Aunilon 2 $200(617)$ $954(7.3)$ $123(80)$ 00 212 200 212 and, Qubec 8 $233(4.3)$ $1120(82)$ 713 821 273 212 and, Qubec 8 $220(210)$ $138(610)$ 871 222 | Asia | | | | | | | | |
| Pune 20 $2360(536)$ $1393(864)$ 200 00 450 pore 55 $2715(534)$ $1566(852)$ 352 14 2.55 $2736(53)$ 273 pore 55 $2715(534)$ $1566(852)$ 352 14 265 273 273 altAchida 22 $2460(72)$ $686(916)$ 841 31 250 213 223 altAntilon 22 $2246(72)$ $686(910)$ 841 31 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 233 < | China, Hong Kong | 09 | 24.63 (4.33) | 12.77 (7.79) | 13.3 | 3.3 | 6.7 | 26.7 | 0.48(1.00) |
| pper Mixer, Testing 55 $2.1/5$ (5.4) 15.66 (8.2) $3.2.2$ 11.2 (8.2) 67.2 14 $2.6.5$ 2.79 Mixer, Zealind 3.2 2.46 (5.73) 16.86 (6.17) 9.54 (7.31) 8.40 0.0 12.0 200 Zaaland 2.5 2.96 (6.17) 9.54 (7.31) 8.40 0.0 12.0 200 Zaaland 2.5 2.96 (6.17) 9.54 (7.31) 8.40 0.0 12.0 200 Zaaland 2.5 2.26 (6.77) 19.46 (7.36) 56.6 6.7 2.00 2.21 Ma, Douloon 4.8 2.353 (4.43) 77.10 8.7 2.01 2.24 5.41 Ma, Douloon 57 2.26 (6.77) 13.26 (8.98) 876 2.7 2.00 2.23 Ma, Douloon 57 2.26 (6.70) 13.46 (8.70) 7.7 2.24 5.47 Ma, Mininge 15 2.279 (1.23) 12.46 (3.79) | India, Pune | 20 | 23.60 (3.56) | 13.93 (8.64) | 20.0 | 0.0 | 0.0 | 45.0 | 1.45 (2.31) |
| Korea, Pasin 68 $2663(418)$ $11.20(822)$ 67.2 4.4 26.5 279 ia/New Zealand 32 $2.96(517)$ $9.54(731)$ 8.40 0.0 12.0 200 Zaaland 32 $2.96(517)$ $9.54(731)$ 8.40 0.0 12.0 200 Zaaland 32 $2.96(517)$ $9.54(731)$ 8.40 0.0 12.0 200 Ja, London 45 $19.4(687)$ $0.84(851)$ 600 6.7 200 223 Ja, London 45 $19.4(687)$ $11.94(7.30)$ 65.6 6.3 28.1 28.1 Ja, London 45 $20.4(61.3)$ $11.94(7.30)$ 17.1 200 21.2 Ja, Conton 37 $2006(1.82)$ $17.9(8.42)$ 87.6 67.7 200 22.3 Ja, Conton 57 $2006(1.85)$ $12.56(9.10)$ 77.1 11.5 200 200 Ja, Conton 57 $2006(1.85)$ <td>Singapore</td> <td>55</td> <td>27.15 (3.54)</td> <td>15.66 (8.52)</td> <td>35.2</td> <td>1.8</td> <td>21.8</td> <td>12.7</td> <td>0.20(0.62)</td> | Singapore | 55 | 27.15 (3.54) | 15.66 (8.52) | 35.2 | 1.8 | 21.8 | 12.7 | 0.20(0.62) |
| iar, Adetaide 32 24.69 (7.26) $6.86 (9.16)$ 78.1 3.1 2.00 219 and 2.32 23.66 (5.17) 9.54 (7.31) 8.40 0.0 12.0 200 200 1.2 1.1 1.4 Adetaide 32 22.96 (5.17) 9.54 (7.31) 8.40 0.0 12.0 200 200 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 | South Korea, Pusan | 68 | 26.63 (4.18) | 11.20 (8.22) | 67.2 | 4.4 | 26.5 | 27.9 | 0.43(0.94) |
| Jila, Adelaide 32 $2469(726)$ $168(9,16)$ 781 3.1 250 $2246(7.7)$ $9.54(7.31)$ 840 0.0 120 200 Zachad 25 $2296(6.17)$ $9.54(7.31)$ 840 0.0 120 200 $2a$, Hamilton 32 $208(3.55)$ $118(7.36)$ 656 6.7 200 422 a , London 45 $19.36(9.10)$ 871 0.0 120 224 246 775 a , Torono 57 $2206(1.22)$ $12.57(9.22)$ 733 0.0 12.5 $2276(1.2)$ 712 2246 775 a , Torono 57 $2206(1.2)$ $12.57(9.2)$ 733 000 12.5 22.7 $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ $2276(1.7)$ < | Austrailia/New Zealand | | | | | | | | |
| Zaland 25 $2296 (6.17)$ $9.54 (7.31)$ 84.0 0.0 12.0 20.0 $a_{\rm H}$ Hamilton 32 $22.938 (3.53)$ $11.84 (7.36)$ 65.6 6.3 28.1 28.1 $a_{\rm h}$ London 45 $19.43 (0.87)$ $10.84 (8.51)$ 60.0 6.7 20.0 42.2 $a_{\rm h}$ Coubec 1 88 $23.33 (4.3)$ $17.10 (8.42)$ 95.8 21.7 20.0 42.2 $a_{\rm h}$ Nonipe 15 $22.79 (3.12)$ $12.67 (9.20)$ 71.3 53.3 24.6 77.7 $a_{\rm h}$ Ninipe 15 $22.79 (3.12)$ $12.67 (9.23)$ 71.3 53.3 24.6 77.7 $a_{\rm h}$ Ninipe 15 $22.79 (3.12)$ $12.67 (9.23)$ 71.3 55.3 24.6 77.7 $a_{\rm h}$ Ninipe 15 $22.79 (3.12)$ $12.67 (9.23)$ 71.3 71.7 20.0 $a_{\rm h}$ Ninipe 15 $22.79 (3.12)$ $12.57 (9.23)$ 71.3 20.0 77.7 < | Australia, Adelaide | 32 | 24.69 (7.26) | 16.86 (9.16) | 78.1 | 3.1 | 25.0 | 21.9 | 0.66 (1.72) |
| a, Hamilton 32 $20.8(3.5)$ $11.84(7.36)$ 65.6 6.3 28.1 28.1 $a_{\rm a}$ London 45 $9.43(0.87)$ $10.84(6.51)$ 60.0 6.7 20.0 22.3 $a_{\rm a}$ Quebec 1 48 $2.3.53(4.43)$ $17.10(8.42)$ 95.8 2.11 5.7 20.0 $2.2.6$ 6.3 2.11 5.7 20.0 $2.2.4$ 54.1 7.7 20.0 $4.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $6.2.5$ $2.2.6(12.70)$ $12.62(9.13)$ 7.71 0.0 $2.2.6$ $6.5.5$ $6.2.5$ $2.2.6(12.70)$ $12.62(9.13)$ 7.71 0.0 $2.2.6$ 7.75 $2.2.6(1.70)$ $12.62(9.13)$ 7.71 9.7 $2.7.7$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.6$ $2.7.6$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.6$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.7$ $2.7.7$ | New Zealand | 25 | 22.96 (6.17) | 9.54 (7.31) | 84.0 | 0.0 | 12.0 | 20.0 | 0.24 (0.52) |
| nilton32 $20.38 (3.55)$ $11.84 (7.36)$ 65.6 6.3 28.1 28.1 28.1 don45 $19.43 (0.87)$ $10.84 (8.51)$ 60.0 6.7 20.0 422 bec 285 $23.33 (4.3)$ $11.08 (4.2)$ 87.8 21.1 53.3 24.6 17.5 onto57 $20.05 (2.24)$ $12.67 (9.10)$ 87.1 0.0 22.4 54.1 onto57 $20.05 (2.24)$ $12.67 (9.22)$ 71.9 5.3 24.6 17.5 onto57 $20.06 (1.85)$ $13.36 (1.02)$ $12.57 (9.22)$ 77.3 0.0 13.3 200 mish90 $20.00 (1.85)$ $13.26 (8.98)$ 87.6 22.2 78.6 17.5 ninge16 $22.79 (3.12)$ $12.57 (9.22)$ 77.3 0.0 11.3 200 mish90 $20.00 (1.85)$ $13.26 (8.98)$ 87.6 22.2 78.6 17.5 ninge105 $20.13 (1.25)$ $12.57 (9.22)$ 77.1 11.9 $12.57 (9.22)$ 77.1 ninge10 $22.17 (5.57)$ $12.84 (8.79)$ 77.7 11.9 12.9 30.0 sign 110 $22.61 (4.06)$ $14.96 (8.90)$ 68.8 11.8 25.5 40.9 sign 200 $23.37 (5.57)$ $12.94 (9.26)$ 77.1 12.9 30.0 sign 200 $23.81 (5.91)$ $12.84 (9.26)$ 77.1 12.9 26.6 sign 200 $23.87 (7.6)$ <th< td=""><td>Canada</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<> | Canada | | | | | | | | |
| | Canada, Hamilton | 32 | 20.58 (3.55) | 11.84 (7.36) | 65.6 | 6.3 | 28.1 | 28.1 | 0.59(1.21) |
| thee 1 48 $2.3.3$ (4.3) 7.10 (8.42) $9.5.8$ 2.1 15.2 $6.2.5$ thee 2 87 200 (2.24) 13.36 (9.10) 87.1 0.0 22.4 541 thee 2 87 2060 (1.85) 13.36 (9.10) 87.1 0.0 22.4 541 mipeg 15 22.79 (3.12) 12.57 (9.22) 73.3 0.0 13.3 200 mish 90 $20.60(1.85)$ 13.36 (8.98) 87.6 22.2 78 200 mish 90 $20.60(1.85)$ 13.36 (8.98) 87.6 22.2 78 200 mish 90 $20.60(1.85)$ 13.36 (8.82) 84.0 0.0 11.5 200 Amsterdam 30 211.90 (7.02) 14.45 (8.77) 77.4 0.0 11.5 477 Amsterdam 30 211.90 (7.02) 14.45 (8.77) 77.4 0.0 $11.4.5$ 477 | Canada, London | 45 | 19.43 (0.87) | 10.84(8.51) | 60.0 | 6.7 | 20.0 | 42.2 | 1.02 (1.67) |
| bec 2 85 $2261(2.70)$ $1396(9.10)$ 87.1 0.0 22.4 54.1 nine 15 $22.79(3.12)$ $12.57(9.22)$ 73.3 0.0 13.3 200 nine 15 $22.79(3.12)$ $12.57(9.22)$ 73.3 0.0 13.3 200 nine 90 $20.60(1.83)$ $13.26(8.98)$ 87.6 2.2 78 13.3 nine 90 $20.60(1.83)$ $13.26(8.93)$ 87.6 2.2 78 17.3 nine 26 $19.65(1.02)$ $12.37(8.82)$ 84.0 0.0 11.5 30.8 inius 105 $20.13(1.33)$ $11.9(8.79)$ 77.1 11.9 87.6 22.7 77.7 12.4 Amsterdam 10 $22.10(4.06)$ $14.90(8.69)$ 68.27 77.1 14.5 47.7 Amsterdam 110 $22.1(14.06)$ $14.90(8.69)$ 68.27 77.1 12.4 77.7 | Canada, Quebec 1 | 48 | 23.53 (4.43) | 17.10 (8.42) | 95.8 | 2.1 | 15.2 | 62.5 | 1.06(1.16) |
| onto 57 $20.05(2.24)$ $12.62(9.13)$ 71.9 5.3 24.6 17.5 mispe 15 $22.79(3.12)$ $12.57(9.22)$ 73.3 0.0 13.3 20.0 mish 90 $20.60(1.85)$ $13.26(8.98)$ 87.6 2.2 78.9 15.5 eiburg 65 $23.71(2.57)$ $12.57(8.22)$ 87.6 22.2 7.8 15.5 30.8 eiburg 65 $23.71(2.57)$ $12.57(8.22)$ 87.6 22.2 7.71 41.5 47.7 Initias 105 $20.13(1.55)$ $12.54(8.74)$ 95.4 3.1 41.5 30.8 Amsterdam 30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 12.3 47.7 Amsterdam 30 $21.90(7.02)$ $14.45(8.27)$ 72.4 3.1 41.5 47.7 Amsterdam 30 $21.93(7.60)$ $12.84(9.26)$ 72.4 0.0 12.3 40.9 | Canada, Quebec 2 | 85 | 22.61 (2.70) | 13.96 (9.10) | 87.1 | 0.0 | 22.4 | 54.1 | 0.76(0.85) |
| mipeg 15 2.79 (3.12) 12.57 (9.22) 73.3 0.0 13.3 20.0 mish 90 20.60 (1.85) 13.26 (8.98) 87.6 2.2 7.8 15.6 eibug 65 19.65 (1.02) 12.87 (8.82) 84.0 0.0 11.5 30.8 eibug 65 20.60 (1.85) 12.87 (8.82) 84.0 0.0 11.5 30.8 films 105 20.13 (1.35) 11.94 (8.79) 77.1 1.9 14.5 30.7 Amsterdam 30 21.90 (7.02) 14.45 (8.77) 72.4 0.0 11.5 30.8 asgow 29 20.33 (2.31) 12.84 (9.26) 72.4 0.0 17.2 24.4 55.9 asgow 29 20.33 (0.14) 11.38 (9.18) 57.7 0.0 77.7 46.2 asgow 26 37.83 (0.14) 11.38 (9.18) 57.7 0.0 77.4 29.7 56.6 <t< td=""><td>Canada, Toronto</td><td>57</td><td>20.05 (2.24)</td><td>12.62 (9.13)</td><td>71.9</td><td>5.3</td><td>24.6</td><td>17.5</td><td>0.37(1.10)</td></t<> | Canada, Toronto | 57 | 20.05 (2.24) | 12.62 (9.13) | 71.9 | 5.3 | 24.6 | 17.5 | 0.37(1.10) |
| mish90 $2060(1.85)$ $1326(8.98)$ 87.6 222 7.8 15.6 center219.65(1.02) $12.37(8.22)$ 84.0 0.0 11.5 30.8 ciburg65 $23.71(2.57)$ $12.37(8.22)$ 84.0 0.0 11.5 30.8 ciburg65 $23.71(2.57)$ $12.37(8.22)$ 84.0 0.0 11.5 30.8 Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 77.1 1.9 14.5 47.7 Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 6.9 26.7 Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 6.9 26.7 Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 6.9 26.7 ago110 $22.61(4.06)$ $14.90(8.69)$ 68.8 1.8 25.5 40.9 asgow29 $20.38(2.81)$ $12.84(9.26)$ 79.3 0.0 17.2 24.1 ug. French42 $28.41(5.93)$ $12.84(9.26)$ 79.3 0.0 77.7 46.2 uug. French24 $23.373(10.14)$ $11.38(9.18)$ 57.7 0.0 77.7 46.2 uug. German26 $37.83(10.14)$ $11.38(9.18)$ 57.7 0.0 77.7 46.2 aulo76 $22.56(4.10)$ $12.49(9.41)$ 71.1 1.4 297.7 46.2 aulo76 $22.317(9.50)$ $14.00(9.61)$ 54.2 21 | Canada, Winnipeg | 15 | 22.79 (3.12) | 12.57 (9.22) | 73.3 | 0.0 | 13.3 | 20.0 | 0.27~(0.59) |
| mish90 $20.60(1.85)$ $13.26(8.98)$ 87.6 2.2 7.8 15.6 eiburg 65 $23.71(2.57)$ $12.54(8.23)$ 84.0 0.0 11.5 30.8 eiburg 65 $23.71(2.57)$ $12.54(8.73)$ 84.0 0.0 11.5 30.8 inius 105 $20.13(1.35)$ $11.94(8.79)$ 77.1 1.9 41.5 47.7 inius 105 $20.13(1.35)$ $11.94(8.79)$ 77.1 1.9 41.5 47.7 Amsterdam 30 $21.907(02)$ $14.45(8.27)$ 72.4 0.0 14.3 26.7 Amsterdam 20 $20.18(1.60)$ 14.966 6890 688 1.8 25.5 40.9 aga 110 $22.19(7.02)$ $12.84(9.26)$ 79.3 0.0 17.2 24.1 agow 29 $20.38(28)$ 86.6 78.7 95.5 24.4 59 urg, French 42 $28.43(7.6)$ $16.27(9.31)$ 90.5 2.4 24.4 500 urg, German 26 $37.33(0.14)$ $11.38(9.18)$ 57.7 0.0 7.7 46.2 $2ulo$ 76 $22.56(4.10)$ $12.49(9.41)$ 71.1 1.4 29.7 59.7 $4mic$ 76 $22.56(4.10)$ $12.38(9.18)$ 57.7 0.0 7.7 46.2 $auto7622.56(4.10)12.38(9.18)54.20.09.137.54mic7622.56(4.10)12.49(9.41)$ | Europe | | | | | | | | |
| cester2619.65 (1.02)12.87 (8.82)84.00.011.530.8eiburg65 $23.71 (2.57)$ $12.54 (8.74)$ 95.4 3.1 41.5 47.7 lihus105 $20.13 (1.35)$ $11.94 (8.79)$ 77.1 1.9 14.3 12.4 Amsterdam30 $21.90 (7.02)$ $14.45 (8.27)$ 72.4 0.0 6.9 26.7 aga110 $22.61 (4.06)$ $14.90 (8.69)$ 68.8 1.8 25.5 40.9 asgow29 $20.38 (2.81)$ $12.84 (9.26)$ 79.3 0.00 17.2 24.1 ohe152 $28.11 (6.93)$ $18.06 (7.87)$ 98.0 1.3 $1.8.4$ 5.9 argow29 $20.38 (2.81)$ $11.38 (9.18)$ 57.7 0.0 77.2 24.1 urg, French42 $28.41 (0.56)$ $16.27 (9.31)$ 90.5 2.4 24.4 50.0 urg, German26 $37.33 (10.14)$ $11.38 (9.18)$ 57.7 0.0 77.7 46.2 aulo76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 therm24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 0.0 77.7 46.2 aulo76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 therm24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 23.1 11.5 arulo76 $23.17 (5.05)$ $14.00 (9.61)$ <td>Belgium, Flemish</td> <td>90</td> <td>20.60 (1.85)</td> <td>13.26 (8.98)</td> <td>87.6</td> <td>2.2</td> <td>7.8</td> <td>15.6</td> <td>0.20(0.50)</td> | Belgium, Flemish | 90 | 20.60 (1.85) | 13.26 (8.98) | 87.6 | 2.2 | 7.8 | 15.6 | 0.20(0.50) |
| eiburg65 $23.71(2.57)$ $12.54(8.74)$ 95.4 3.1 41.5 47.7 lihus105 $20.13(1.35)$ $11.94(8.79)$ 77.1 1.9 14.3 12.4 Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 6.9 26.7 aga110 $22.61(4.06)$ $14.90(8.69)$ 68.8 1.8 25.5 40.9 asgow29 $20.38(2.81)$ $12.84(9.26)$ 79.3 0.0 172 24.1 vie152 $28.11(6.93)$ $18.06(7.87)$ 98.0 1.3 1.3 18.4 5.9 vie152 $28.11(6.93)$ $18.06(7.87)$ 98.0 1.3 24.4 5.0 urg, French42 $28.43(7.76)$ $16.27(9.31)$ 90.5 2.44 5.0 urg, German26 $37.83(10.14)$ $11.38(9.18)$ 57.7 0.0 7.7 46.2 urg, German26 $23.7(5.05)$ $14.00(9.61)$ 54.2 0.0 7.7 46.2 aulo76 $22.56(4.10)$ $12.39(9.18)$ 57.7 0.0 7.7 46.2 therm24 $23.17(5.05)$ $14.00(9.61)$ 54.2 0.0 9.1 37.5 vecteel52 $30.14(9.26)$ $10.28(8.62)$ 92.3 0.0 23.1 11.5 aulo76 $21.4(9.26)$ $10.28(8.62)$ 92.3 0.0 23.1 11.5 Aaulo76 $21.4(9.26)$ $10.28(8.62)$ 92.3 0.0 23 | England, Leicester | 26 | 19.65 (1.02) | 12.87 (8.82) | 84.0 | 0.0 | 11.5 | 30.8 | 0.35(0.56) |
| illuius 105 $20.13 (1.35)$ $11.94 (8.79)$ 77.1 1.9 14.3 12.4 Amsterdam 30 $21.90 (7.02)$ $14.45 (8.27)$ 72.4 0.0 6.9 26.7 aga 110 $22.61 (4.06)$ $14.90 (8.69)$ 68.8 1.8 25.5 40.9 asgow 29 $20.38 (2.81)$ $12.84 (9.26)$ 79.3 0.0 17.2 24.1 vle 152 $28.11 (6.93)$ $18.06 (7.87)$ 98.0 1.3 18.4 5.9 vle 152 $28.11 (6.93)$ $18.06 (7.87)$ 98.0 1.3 18.4 5.9 vle 152 $28.43 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 50.0 urg, French 42 $28.43 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 50.0 urg, German 26 $37.83 (10.14)$ $11.38 (9.18)$ 57.7 0.0 7.7 46.2 $2ulo$ 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 $2ulo$ 76 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 21.7 46.2 $artio$ 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 21.7 46.2 $artio$ 24 $20.40 (1.45)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 $artio$ 26 $21.12 (2.42)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 $artid2621.12 $ | Germany, Freiburg | 65 | 23.71 (2.57) | 12.54 (8.74) | 95.4 | 3.1 | 41.5 | 47.7 | 0.80(1.00) |
| Amsterdam30 $21.90(7.02)$ $14.45(8.27)$ 72.4 0.0 6.9 26.7 aga110 $22.61(4.06)$ $14.90(8.69)$ 68.8 1.8 25.5 40.9 asgow29 $20.38(2.81)$ $12.84(9.26)$ 79.3 0.0 17.2 24.1 vle 152 $28.11(6.93)$ $18.06(7.87)$ 98.0 1.3 18.4 5.9 vle 152 $28.13(7.76)$ $16.27(9.31)$ 90.5 2.4 24.4 50.0 urg, German 26 $37.83(10.14)$ $11.38(9.18)$ 57.7 0.0 7.7 46.2 2ulo 76 $22.56(4.10)$ $12.49(9.41)$ 71.1 1.4 29.7 50.0 2ulo 76 $22.56(4.10)$ $12.49(9.61)$ 54.2 0.0 0.0 9.1 37.5 2ulo 76 $22.317(5.05)$ $14.00(9.61)$ 54.2 0.0 9.1 37.5 2ulo 52 $30.14(9.26)$ $10.28(8.62)$ 92.3 0.0 23.1 11.5 2ot 26 $21.12(2.42)$ $11.04(8.46$ | Lithuania, Vilnius | 105 | 20.13 (1.35) | 11.94(8.79) | 77.1 | 1.9 | 14.3 | 12.4 | 0.15(0.43) |
| aga110 $22.61(4.06)$ $14.90(8.69)$ 68.8 1.8 25.5 40.9 asgow29 $20.38(2.81)$ $12.84(9.26)$ 79.3 0.0 17.2 24.1 vle 152 $28.11(6.93)$ $18.06(7.87)$ 98.0 1.3 18.4 5.9 urg, French 42 $28.43(7.76)$ $16.27(9.31)$ 90.5 2.4 24.4 5.9 urg, French 42 $28.43(7.76)$ $16.27(9.31)$ 90.5 2.4 24.4 5.0 urg, French 26 $37.83(10.14)$ $11.38(9.18)$ 57.7 0.0 7.7 46.2 aulo 76 $22.56(4.10)$ $12.49(9.41)$ 71.1 1.4 29.7 56.6 aulo 76 $22.56(4.10)$ $12.49(9.41)$ 71.1 1.4 29.7 56.6 aulo 76 $22.56(4.10)$ $12.49(9.61)$ 54.2 0.0 9.1 37.5 them 24 $23.17(5.05)$ $14.00(9.61)$ 54.2 0.0 9.1 37.5 'Yezreel 52 $30.14(9.26)$ $10.28(8.62)$ 92.3 0.0 23.1 11.5 a 47 $20.40(1.45)$ $11.04(8.46)$ 82.6 6.4 21.7 42.6 a 26 $21.12(2.42)$ $11.92(7.38)$ 84.0 12.0 50.0 53.0 | Netherlands, Amsterdam | 30 | 21.90 (7.02) | 14.45 (8.27) | 72.4 | 0.0 | 6.9 | 26.7 | 0.40 (0.72) |
| asgow29 $20.38 (2.81)$ $12.84 (9.26)$ 79.3 0.0 17.2 24.1 vle 152 $28.11 (693)$ $18.06 (7.87)$ 98.0 1.3 18.4 5.9 urg, French 42 $28.13 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 5.9 urg, French 42 $28.43 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 50.0 urg, German 26 $37.83 (10.14)$ $11.38 (9.18)$ 57.7 0.0 7.7 46.2 $^{2}aulo$ 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 $^{2}aulo$ 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 $^{2}aulo$ 76 $22.56 (4.10)$ $12.49 (9.61)$ 54.2 0.0 9.1 37.5 $^{2}aulo$ 76 $22.56 (4.10)$ $12.49 (9.61)$ 54.2 0.0 9.1 37.5 $^{2}aulo$ 76 $22.56 (4.10)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 $^{2}Arreel$ 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 $^{3}arreel$ 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 $^{3}arreel$ 52 $30.14 (9.26)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 ana 26 $21.12 (2.42)$ $11.04 (8.46)$ 82.0 6.4 21.7 42.6 <td< td=""><td>Portugal, Braga</td><td>110</td><td>22.61 (4.06)</td><td>14.90(8.69)</td><td>68.8</td><td>1.8</td><td>25.5</td><td>40.9</td><td>0.75(1.09)</td></td<> | Portugal, Braga | 110 | 22.61 (4.06) | 14.90(8.69) | 68.8 | 1.8 | 25.5 | 40.9 | 0.75(1.09) |
| vie152 $28.11 (6.93)$ $18.06 (7.87)$ 98.0 1.3 18.4 5.9 urg, French 42 $28.43 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 5.00 urg, German 26 $37.83 (10.14)$ $11.38 (9.18)$ 57.7 0.0 7.7 46.2 aulo 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 aulo 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 therm 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 9.1 37.5 therm 24 $23.17 (5.05)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 Azreel 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 a 47 $20.40 (1.45)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 a 26 $21.12 (2.42)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 | Scotland, Glasgow | 29 | 20.38 (2.81) | 12.84 (9.26) | 79.3 | 0.0 | 17.2 | 24.1 | 0.31(0.60) |
| urg, French42 $28.43 (7.76)$ $16.27 (9.31)$ 90.5 2.4 24.4 50.0 90.5 urg, German 26 $37.83 (10.14)$ $11.38 (9.18)$ 57.7 0.0 7.7 46.2 6.0 aulo 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 thern 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 9.1 37.5 thern 24 $23.17 (5.05)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 Azreel 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 a 47 $20.40 (1.45)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 a 26 $21.12 (2.42)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 | Sweden, Gavle | 152 | 28.11 (6.93) | 18.06 (7.87) | 98.0 | 1.3 | 18.4 | 5.9 | 0.09(0.40) |
| urg, German 26 $37.83 (10.14)$ $11.38 (9.18)$ 57.7 0.0 7.7 46.2 0.0 aulo 76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 thern 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 9.1 37.5 thern 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 9.1 37.5 . Yezreel 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 0.0 a 47 $20.40 (1.45)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 ana 26 $21.12 (2.42)$ $11.04 (8.46)$ 84.0 12.0 50.0 53.8 | Swiss, Fribourg, French | 42 | 28.43 (7.76) | 16.27 (9.31) | 90.5 | 2.4 | 24.4 | 50.0 | 0.76 (0.91) |
| Paulo 76 22.56 (4.10) 12.49 (9.41) 71.1 1.4 29.7 56.6 therm 24 23.17 (5.05) 14.00 (9.61) 54.2 0.0 9.1 37.5 Yezreel 52 30.14 (9.26) 10.28 (8.62) 92.3 0.0 23.1 11.5 a 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 ama 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | Swiss, Fribourg, German | 26 | 37.83 (10.14) | 11.38 (9.18) | 57.7 | 0.0 | T.T | 46.2 | 0.58(0.76) |
| Paulo76 $22.56 (4.10)$ $12.49 (9.41)$ 71.1 1.4 29.7 56.6 orthern 24 $23.17 (5.05)$ $14.00 (9.61)$ 54.2 0.0 9.1 37.5 k Yezreel 52 $30.14 (9.26)$ $10.28 (8.62)$ 92.3 0.0 23.1 11.5 na 47 $20.40 (1.45)$ $11.04 (8.46)$ 82.6 6.4 21.7 42.6 siana 26 $21.12 (2.42)$ $11.04 (8.46)$ 84.0 12.0 50.0 53.8 | Latin America | | | | | | | | |
| orthern 24 23.17 (5.05) 14.00 (9.61) 54.2 0.0 9.1 37.5 k Yezreel 52 30.14 (9.26) 10.28 (8.62) 92.3 0.0 23.1 11.5 1 na 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 siana 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | Brazil, Sao Paulo | 76 | 22.56 (4.10) | 12.49 (9.41) | 71.1 | 1.4 | 29.7 | 56.6 | 1.18(1.35) |
| k Yezreel 52 30.14 (9.26) 10.28 (8.62) 92.3 0.0 23.1 11.5 0 na 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 siana 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | Mexico, Northern | 24 | 23.17 (5.05) | 14.00(9.61) | 54.2 | 0.0 | 9.1 | 37.5 | 1.08 (1.79) |
| k Yezreel 52 30.14 (9.26) 10.28 (8.62) 92.3 0.0 23.1 11.5 1 na 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 siana 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | Middle East | | | | | | | | |
| na 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 siana 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | Israel, Emek Yezreel | 52 | 30.14 (9.26) | 10.28 (8.62) | 92.3 | 0.0 | 23.1 | 11.5 | 0.21 (0.70) |
| 47 20.40 (1.45) 11.04 (8.46) 82.6 6.4 21.7 42.6 na 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | United States | | | | | | | | |
| 26 21.12 (2.42) 11.92 (7.38) 84.0 12.0 50.0 53.8 | USA, Indiana | 47 | 20.40 (1.45) | 11.04(8.46) | 82.6 | 6.4 | 21.7 | 42.6 | 1.06(1.67) |
| | USA, Louisiana | 26 | 21.12 (2.42) | 11.92 (7.38) | 84.0 | 12.0 | 50.0 | 53.8 | 1.27 (1.91) |

408

| | | | Length of relationship | | | | | # of SAH items |
|-------------------------------|-----|------------------------|------------------------|--------------------------------|--------------|----------------------|--------------|--------------------|
| Site | Ν | Age in years M (SD) | in months M (SD) | % Sex part of the relationship | % Forced sex | % Verbal coercion | % with a SAH | endorsed M (SD) |
| USA, Mississippi | 15 | 29.40 (8.63) | 14.57 (9.21) | 78.6 | 6.7 | 14.3 | 33.3 | 1.13 (1.85) |
| USA, NH, Durham 1 | 114 | 19.39 (1.58) | 10.79 (8.29) | 69.3 | 1.8 | 23.7 | 21.9 | 0.39(0.89) |
| USA, NH, Durham 2 | 60 | 22.05 (2.83) | 13.83 (8.42) | 81.7 | 3.4 | 27.1 | 16.7 | 0.22(0.52) |
| USA, Ohio, Cincinnati | 128 | 20.69 (2.55) | 13.25 (8.89) | 72.2 | 4.7 | 21.6 | 30.5 | 0.70(1.39) |
| USA, Pennsylvania | 42 | 19.76 (1.25) | 10.52(8.39) | 88.1 | 4.8 | 16.7 | 11.9 | 0.21 (0.65) |
| USA, TX, Houston | 34 | 19.85 (1.35) | 14.04 (8.27) | 70.6 | 2.9 | 29.4 | 17.6 | 0.41 (1.31) |
| USA, TX, Mexican-American | 71 | 23.82 (5.32) | 13.82 (9.28) | 73.9 | 7.0 | 34.3 | 38.0 | 0.80 (1.42) |
| USA, TX, Non-Mexican-American | 85 | 23.72 (5.37) | 13.79 (8.66) | 77.1 | 3.6 | 37.3 | 20.0 | 0.33(0.86) |
| USA, TX, Nacogdoches | 29 | 21.39 (5.37) | 12.34 (8.58) | 75.9 | 7.1 | 32.1 | 31.0 | 0.69(1.23) |
| USA, Utah, Logan | 54 | 23.23 (3.34) | 13.14 (9.14) | 35.2 | 0.0 | 9.3 | 27.8 | 0.59 (1.35) |
| USA, Washington, DC | 10 | 21.90(4.33) | 13.75 (9.47) | 100.0 | 0.0 | 40.0 | 40.0 | 1.50 (2.64) |

 Table 1
 Continued

is associated with further victimization; in other words, there seems to be a cumulative effect of victimization on the chances for further victimization (e.g., Gidycz, Hanson, & Layman, 1995).

Social desirability. Participants' tendency to minimize socially undesirable behavior was controlled with the social desirability scale of the *PRP*. This 13-item scale includes behaviors and emotions that are slightly undesirable but true of most people, such as, "I sometimes try to get even rather than forgive and forget." Participants indicated on a 4-point scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) the extent to which they agreed with each item. The items were then summed and divided by the number of items in the scale to obtain an average social desirability score. The overall reliability of this scale was .69, and it ranged from a low of .59 in Pune, India to a high of .77 in Pennsylvania.

Socioeconomic status (SES). An SES variable was created for each site using three variables: father's education, mother's education, and family income. To create a variable that measured the SES of each student that was relevant to the SES of others at the student's university, the SES variables at each site were transformed into z-scores. The scale thus measures SES as the number of standard deviations each student was above or below the mean at their site.

Site-level measures

Adversarial sexual beliefs. The mean level of adversarial sexual beliefs for each site was computed using the site level means for the Gender Hostility to Men and the Gender Hostility to Women scales of the PRP. These site level means were calculated prior to eliminating participants who were either gay/lesbian or were not involved in intimate relationships within the time frame specified by the study to increase the reliability of these variables. For the mean Gender Hostility to Men score, only the female participants' scores at each site were used, and for the mean Gender Hostility to Women score, only the male participants' scores at each site were used. Each of these scales contains five items pertaining to hostile thoughts or beliefs one may have of each gender (e.g., Men treat women badly; I often feel resentful of women). Participants indicated on a 4-point scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) the extent to which they agreed with each item. Items for each subscale were then averaged for each participant. Both Gender Hostility scales have shown excellent reliability and validity (Straus & Mouradian, 1999). For the current study, the mean Gender Hostility to Men and to Women scores for each site were used as site-level predictors for any site differences in rates of sexual coercion victimization. Site scores for both scales are presented in Table 3. For ease of interpre-

| | | | Length of relationship | | | | | # of SAH items |
|-------------------------|-------|------------------------|------------------------|--------------------------------|--------------|-------------------|--------------|--------------------|
| Site | Ν | Age in years M (SD) | in months $M(SD)$ | % Sex part of the relationship | % forced sex | % Verbal coercion | % with a SAH | endorsed M (SD) |
| Combined | 5,583 | 23.31 (6.67) | 15.37 (8.65) | 0.97 | 2.3 | 24.5 | 32.0 | 0.66 (1.26) |
| Asia | | | | | | | | |
| China, Hong Kong | 87 | 23.60 (4.39) | 14.11(8.04) | 28.7 | 1.1 | 14.9 | 24.1 | 0.49(1.10) |
| India, Pune | 40 | 22.26 (1.41) | 13.76 (8.81) | 27.5 | 10.0 | 17.5 | 35.0 | 1.33 (2.22) |
| Singapore | 132 | 23.38 (2.73) | 18.09 (7.87) | 38.6 | 1.5 | 23.1 | 20.5 | 0.47(1.16) |
| South Korea, Pusan | 113 | 23.53 (3.17) | 11.28 (8.16) | 36.4 | 11.5 | 20.7 | 31.9 | 0.67(1.31) |
| Australia/New Zealand | | | | | | | | |
| Australia, Adelaide | 176 | 23.18 (6.94) | 15.87 (8.72) | 84.1 | 0.6 | 22.7 | 35.8 | 0.82(1.44) |
| New Zealand | 94 | 21.06 (5.23) | 13.97 (8.61) | 85.1 | 2.1 | 29.8 | 46.8 | 0.90(1.33) |
| Canada | | | | | | | | |
| Canada, Hamilton | 197 | 21.27 (4.17) | 15.37 (8.77) | 72.8 | 4.1 | 28.2 | 31.5 | 0.57 (1.04) |
| Canada, London | 60 | 19.36 (1.13) | 11.93 (9.28) | 80.0 | 13.3 | 36.7 | 26.7 | 0.45(0.87) |
| Canada, Quebec 1 | 220 | 23.88 (5.45) | 17.51 (8.13) | 94.1 | 0.9 | 28.8 | 52.7 | 1.20 (1.61) |
| Canada, Quebec 2 | 49 | 21.69 (2.29) | 14.69(8.98) | 98.0 | 2.0 | 34.7 | 53.1 | 1.04 (1.26) |
| Canada, Toronto | 126 | 20.44 (3.83) | 14.11 (8.58) | 64.0 | 3.2 | 24.8 | 24.6 | 0.52(1.19) |
| Canada, Winnipeg | 112 | 22.14 (4.61) | 15.54(8.84) | 83.9 | 1.8 | 29.5 | 40.2 | 0.75 (1.29) |
| Europe | | | | | | | | |
| Belgium, Flemish | 311 | 20.33 (2.16) | 15.14(8.60) | 91.9 | 0.0 | 11.9 | 31.5 | 0.43(0.75) |
| England, Leicester | 157 | 19.78 (2.93) | 15.57 (8.38) | 87.2 | 5.1 | 26.8 | 28.7 | 0.47~(0.90) |
| Germany, Freiburg | 96 | 23.85 (3.96) | 14.04(8.42) | 98.9 | 2.1 | 39.6 | 41.7 | 0.78(1.09) |
| Lithuania, Vilnius | 220 | 20.73 (2.98) | 14.99(8.76) | 78.4 | 0.9 | 21.9 | 21.4 | 0.31 (0.74) |
| Netherlands, Amsterdam | 94 | 22.25 (6.75) | 14.05(8.65) | 91.5 | 0.0 | 9.6 | 39.4 | 0.59(0.88) |
| Portugal, Braga | 239 | 21.34 (2.96) | 16.17 (8.50) | 73.8 | 0.8 | 21.8 | 30.5 | 0.58(1.01) |
| Scotland, Glasgow | 169 | 21.99 (5.56) | 14.95(8.70) | 92.9 | 1.2 | 21.3 | 23.7 | 0.49 (1.07) |
| Sweden, Gavle | 493 | 28.83 (7.57) | 19.99(6.94) | 97.8 | 0.4 | 14.7 | 18.3 | 0.38(1.06) |
| Swiss, Fribourg, French | 141 | 32.03 (10.30) | 17.16 (7.88) | 95.7 | 0.7 | 27.3 | 44.0 | 0.83(1.18) |
| Swiss, Fribourg, German | 92 | 39.48 (9.30) | 16.16(8.69) | 86.8 | 2.2 | 33.0 | 41.3 | 0.84(1.26) |
| Latin America | | | | | | | | |
| Brazil, Sao Paulo | 155 | 20.32 (3.25) | 13.73 (8.93) | 0.69 | 1.3 | 39.5 | 43.9 | 0.92(1.37) |
| Mexico, Northern | 158 | 20.06 (3.15) | 12.98 (8.68) | 39.9 | 5.7 | 21.8 | 38.0 | 1.11 (1.78) |
| Middle East | | | | | | | | |
| Israel, Emek Yezreel | 250 | 31.46 (8.61) | 13.45 (8.71) | 92.0 | 4.0 | 19.6 | 23.2 | 0.48(1.16) |
| United States | | | | | | | i | |
| USA, Indiana | 139 | 19.78 (3.78) | 14.29(8.70) | 72.7 | 4.3 | 31.9 | 31.7 | 0.56(1.06) |
| USA, Louisiana | 70 | 21.53 (4.80) | 14.14(8.69) | 89.9 | 7.2 | 43.5 | 41.4 | 1.00(1.70) |
| | | | | | | | | |

 Table 2
 Descriptive statistics: Women

Deringer

g

| Site | Ν | Age in years M (SD) | Length of relationship in months M (SD) | % Sex part of the relationship | % forced sex | % Verbal coercion | % with a SAH | # of SAH items endorsed M (SD) |
|----------------------------|-----|------------------------|-----------------------------------------------|--------------------------------|-----------------|----------------------|-----------------|--------------------------------------|
| USA, Mississippi | 175 | 28.98 (8.02) | 18.85 (7.64) | 84.3 | 3.5 | 31.8 | 44.6 | 1.22 (1.89) |
| USA, NH, Durham 1 | 208 | 19.60(3.01) | 13.08 (9.06) | 78.7 | 0.5 | 24.5 | 29.8 | 0.50(0.98) |
| USA, NH, Durham 2 | 205 | 20.41 (3.20) | 14.23 (8.65) | 83.8 | 1.0 | 22.2 | 24.9 | 0.41 (0.89) |
| USA, OH, Cincinnati | 144 | 20.33 (2.53) | 14.96 (8.42) | 77.8 | 0.7 | 28.7 | 28.5 | 0.60 (1.24) |
| USA, Pennsylvania | 154 | 20.25 (3.18) | 11.96 (7.96) | 74.7 | 1.9 | 23.4 | 26.6 | 0.54(1.15) |
| USA, TX, Houston | 37 | 20.30 (1.58) | 12.84 (9.04) | 54.1 | 0.0 | 10.8 | 18.9 | 0.59 (1.44) |
| USA, TX, Mexican-American | 131 | 25.10 (5.87) | 18.33 (8.05) | 82.4 | 0.8 | 29.4 | 39.7 | 0.98 (1.57) |
| USA, TX, Non-Mexican-Amer. | 104 | 24.17 (6.64) | 17.15 (8.42) | 79.6 | 3.9 | 39.4 | 36.5 | 0.96(1.59) |
| USA, TX, Nacogdoches | 75 | 20.35 (4.12) | 13.20 (8.43) | 73.3 | 2.7 | 29.3 | 34.7 | 1.01 (1.83) |
| USA, Utah, Logan | 100 | 21.11 (2.85) | 11.33 (8.20) | 33.0 | 2.0 | 17.0 | 33.0 | 0.74 (1.26) |
| USA, Washington, DC | 09 | 20.39 (1.77) | 15.12(8.01) | 88.3 | 5.0 | 46.7 | 41.7 | 1.02 (1.49) |

tation of the odds ratios in the analyses, these scores were ranked and divided into quintiles. Thus, site scores on these subscales have a possible range of 1 to 5, with higher scores indicating greater gender hostility.

Status of women. The status of women at each site was measured by computing a composite score for women's representation in government, education, and the workforce, three areas of society in which inequalities due to sexism and patriarchal structure are most evident. Information pertaining to these indices was obtained through the United Nations Statistics Division, which compiles statistics and indicators on women and men in government, education, and the workforce in every nation (http://unstats.un.org). Three statistics were used as indices of women's participation in government: the percent of parliamentary seats in single or lower chamber occupied by women, the percent of decision-making positions in government at the ministerial level occupied by women, and the percent of decisionmaking positions in government at the sub-ministerial level occupied by women. Similarly, three statistics were used to indicate women's participation in education: girls' share of secondary-level school enrollment, women's share of college level enrollment, and school life expectancy of women as a percentage of that of men. Finally, two indices were used to indicate women's participation in the workforce: percent of the adult labor force occupied by women and percent of administrative and managerial workers who are women.

Following Baron and Straus (1984), the following procedure was usesd for constructing the Status of Women Index: Each percentage score was transformed into its *z*-score and then summed to create the overall Status of Women Index. Each site was then assigned the Index score for the nation in which it was located. The scores ranged from a low of -12.33 at the India site to a high of 10.77 at the Swedish site. These scores were then ranked and divided into quintiles so that the odds ratios could be easily interpreted in the analyses. Thus, sites scores for this measure range from 1 to 5, with higher scores indicating a higher status of women. It is important to note that the Status of Women Index was unrelated to site level means of Gender Hostility to Men, r(36) = -.28, *ns*, and Gender Hostility to Women, r(36) = .08, *ns*.

Statistical analyses

To test the research questions, a series of hierarchical linear models were estimated. Hierarchical linear modeling (HLM) is a technique that allows one to simultaneously consider both individual-level and group-level influences on a variable of interest without violating assumptions of independence (as would occur in the individual-level analysis using site as an independent variable) or losing valuable variability (as would occur in analyses aggregating scores by sites). For example, students' school performance may not only depend on individual characteristics, but may also be dependent on classroom membership, so that students within classrooms may have similarities in outcome measures. HLM allows one to examine how group influences interact with individual characteristics by performing a series of nested linear models that take into account hierarchical structure (Raudenbush & Bryk, 2002).

A series of models were estimated to investigate the research questions. Because the dependent variables were dichotomous, all of the models were estimated using a logistic regression hierarchical linear model. Control variables used in the analyses varied according to whether they were significantly correlated with the dependent variables, and included one or more of the following: age, length of relationship, whether sex was part of the relationship, SES, and social desirability response bias of the participant. The individuallevel predictor was the number of SAH items endorsed. Sitelevel predictors for differences among sites in rates of sexual coercion were the rank of Gender Hostility to Men or to Women, and the Status of Women Index. For the purposes of brevity, only the final models will be displayed in the Results section.

Results

Men

Table 1 presents descriptive information concerning the percentage of men who sustained forced sex, verbal sexual coercion, and a history of CSA. Almost 3% of men reported forced sex and 22% reported verbal coercion. For the forced sex items (analyses not shown), 2.4% reported forced oral or anal sex, and 2.1% reported forced vaginal sex. For the verbal coercion items, 13.5% reported that their partner insisted on sex without a condom, 11.7% that their partners insisted on vaginal sex, 7.5% that their partners insisted on oral or anal sex, and 1.9% that their partners threatened them to have oral or anal sex, and 1.9% that their partners threatened them to have vaginal sex. Also shown in Table 1, close to 30% of the sample overall reported at least one type of CSA, and the mean number of items endorsed was .55.

Possible covariates for the analyses are presented in Table 4, and the intercorrelations among these covariates are presented in Table 5. As shown, none of the possible covariates were significantly associated with physically forced sex, whereas relationship length, whether sex was part of the relationship, and social desirability were significantly associated with verbal sexual coercion. Specifically, rates of verbal sexual coercion were higher in relationships where the participants reported sexual intercourse, and in longer relationships. In addition, the higher the participants' social desirability response bias, the lower their reported rates of verbal sexual coercion. For the HLM analyses, only these covariates were entered into the model. Table 5 also shows that SAH was significantly positively correlated with both forced and verbal sexual coercion. The final HLM models for forced sex and verbal coercion against men are presented in Tables 6 and 7, respectively.

Differences in sexual coercion among sites

Inspection of the model presented in Table 6 indicated that both the Status of Women Index and the site-level rank of Gender Hostility to Men were significant predictors of variations in forced sex against men. Specifically, the greater the power of women and the greater the hostility towards men in a site, the more victimization the men reported. For each one point increase on the Status of Women Index (5-point scale), the odds of men reporting forced sexual coercion increased by 25%, and for each one point increase on the Gender Hostility to Men scale, the odds of forced sexual coercion increased by 38%. Moreover, as indicated by the nonsignificant chi-square for the intercept, there were no longer significant differences among the sites in forced sexual coercion against men once these predictors were entered into the model.

The model for verbal coercion showed a slightly different picture. In this model (Table 7), the Status of Women Index was not a significant predictor of variations among the sites, but Gender Hostility to Men was, in that for every point increase on the scale, the odds of men reporting verbal coercion increased by 18%. In addition, the significant chi-square for the intercept suggested that there was still more variation in levels of verbal coercion between sites to be explained.

Sexual abuse history as a risk factor

Table 6 shows that a history of CSA was a significant risk factor for the victimization of forced sexual coercion for men, in that for every additional type of CSA experienced, the odds of sustaining forced sex were 1.48 times greater. In addition, this association did not significantly differ across sites, as evidenced by the non-significant chi-square for the SAH-forced sex slope. Similarly, CSA was a significant predictor for verbal sexual coercion (Table 7). In this instance, for each additional type of CSA experienced, the odds of sustaining verbal coercion were 1.28 times greater. Moreover, the non-significant chi-square for the SAH-verbal coercion slope indicated that this association did not significantly differ across sites. Table 10 presents the slope estimates for the associations between SAH and forced and verbal sexual coercion. Slope estimates provide an indication for how much

Table 3 Site level scores for the Status of Women Index and Gender Hostility to Men and Women

| | Gender Hostility | to Men ^a | Gender Hostility to | o Women | |
|-------------------------------|------------------|---------------------|---------------------|---------|-----------------------|
| Site | M (SD) | Ν | M (SD) | Ν | Status of Women Index |
| Overall | 2.01 (0.50) | 7215 | 1.88 (0.52) | 3105 | 0.00 |
| Asia | | | | | |
| China, Hong Kong | 2.10 (0.36) | 133 | 1.88 (0.46) | 86 | -4.04 |
| India, Pune | 2.36 (0.50) | 127 | 2.03 (0.48) | 76 | -12.33 |
| Singapore | 2.06 (0.40) | 187 | 1.85 (0.51) | 85 | -7.18 |
| South Korea, Pusan | 2.36 (0.38) | 197 | 2.00 (0.40) | 108 | -11.56 |
| Australia/New Zealand | | | | | |
| Australia, Adelaide | 1.99 (0.46) | 202 | 1.88 (0.52) | 49 | -2.42 |
| New Zealand | 1.94 (0.39) | 122 | 1.91 (0.60) | 39 | 4.16 |
| Canada | | | | | |
| Canada, Hamilton | 2.01 (0.44) | 243 | 1.88 (0.52) | 43 | 2.40 |
| Canada, London | 2.05 (0.53) | 75 | 2.02 (0.60) | 68 | 2.40 |
| Canada, Quebec 1 | 1.73 (0.44) | 251 | 1.69 (0.46) | 68 | 2.40 |
| Canada, Quebec 2 | 1.74 (0.45) | 60 | 1.65 (0.54) | 102 | 2.40 |
| Canada, Toronto | 2.05 (0.44) | 175 | 1.99 (0.50) | 98 | 2.40 |
| Canada, Winnipeg | 1.98 (0.44) | 137 | 2.00 (0.55) | 19 | 2.40 |
| Europe | | | | | |
| Belgium, Flemish | 1.67 (0.40) | 390 | 1.51 (0.49) | 122 | -1.54 |
| England, Leicester | 2.14 (0.47) | 194 | 1.97 (0.62) | 38 | 1.91 |
| Germany, Freiburg | 2.03 (0.45) | 97 | 1.95 (0.38) | 69 | -5.39 |
| Lithuania, Vilnius | 2.16 (0.42) | 289 | 1.90 (0.42) | 153 | -0.61 |
| Netherlands, Amsterdam | 1.62 (0.43) | 124 | 1.44 (0.42) | 46 | -2.31 |
| Portugal, Braga | 2.07 (0.40) | 303 | 1.87 (0.42) | 170 | 0.91 |
| Scotland, Glasgow | 2.09 (0.46) | 192 | 1.88 (0.47) | 38 | 1.91 |
| Sweden, Gavle | 1.71 (0.50) | 554 | 1.70 (0.56) | 173 | 10.77 |
| Swiss, Fribourg, French | 1.89 (0.36) | 183 | 1.77 (0.45) | 90 | -6.38 |
| Swiss, Fribourg, German | 2.02 (0.46) | 126 | 1.83 (0.50) | 54 | -6.38 |
| Latin America | | | () | | |
| Brazil, Sao Paulo | 2.12 (0.41) | 274 | 1.90 (0.44) | 138 | -5.44 |
| Mexico, Northern | 2.24 (0.50) | 210 | 1.92 (0.60) | 47 | -10.36 |
| Middle East | | | () | | |
| Israel, Emek Yezreel | 1.99 (0.52) | 345 | 1.79 (0.54) | 79 | -5.25 |
| United States | | | | | |
| USA, Indiana | 2.09 (0.52) | 185 | 2.06 (0.51) | 81 | 3.62 |
| USA, Louisiana | 2.32 (0.54) | 100 | 2.11 (0.61) | 71 | 3.62 |
| USA, Mississippi | 2.20 (0.52) | 233 | 1.70 (0.40) | 27 | 3.62 |
| USA, NH, Durham 1 | 2.01 (0.47) | 238 | 1.92 (0.55) | 125 | 3.62 |
| USA, NH, Durham 2 | 1.97 (0.48) | 264 | 1.96 (0.50) | 88 | 3.62 |
| USA, Ohio, Cincinnati | 2.10 (0.53) | 188 | 2.04 (0.51) | 185 | 3.62 |
| USA, Pennsylvania | 2.02 (0.46) | 184 | 2.03 (0.55) | 64 | 3.62 |
| USA, TX, Houston | 2.02 (0.10) | 59 | 1.87 (0.47) | 54 | 3.62 |
| USA, TX, Mexican-American | 2.10 (0.44) | 155 | 1.83 (0.58) | 111 | 3.62 |
| USA, TX, Non-Mexican-American | 2.12 (0.52) | 135 | 2.05 (0.58) | 118 | 3.62 |
| USA, TX, Nacogdoches | 2.12 (0.52) | 89 | 2.06 (0.41) | 39 | 3.62 |
| USA, Utah, Logan | 2.02 (0.47) | 115 | 1.86 (0.47) | 72 | 3.62 |
| USA, Washington, DC | 2.24 (0.57) | 79 | 2.40 (0.46) | 12 | 3.62 |

Note. Site-level scores for the Gender Hostility scales were determined by taking the mean Gender Hostility scores for all participants at each site. The Status of Women Index was computed by standardizing and summing eight U.N. indices on women's participation in government, education, and the workforce in each nation.

^{*a*}Mean scores for Gender Hostility to Men and Gender Hostility to Women were significantly different from each other, t(37) = 7.08, p < .001.

. . .

| Table 4 Pearson correlations between sexual coercion | | Males $N = 2,084$ | 1 | Females $N = 5,5$ | 83 |
|------------------------------------------------------------------------|-------------------------------------------|------------------------|------------------------|------------------------|------------------------|
| variables and demographics and sexual abuse history | Variables | Forced sexual coercion | Verbal sexual coercion | Forced sexual coercion | Verbal sexual coercion |
| | Age | 04 | .01 | .00 | 03* |
| | Relationship Length | .01 | .09*** | 03* | .06*** |
| | Sex part of the relationship ^a | .02 | .19*** | 01 | .17*** |
| $^{a}1 = $ Yes, $0 = $ No. | Socioeconomic status | .01 | .02 | .00 | .01 |
| | Social desirability | 03 | 13*** | 03* | 11*** |
| $p^* < .05, p^* < .01,$ $p^{***} < .001.$ | Sexual abuse history | .14*** | .15*** | .06*** | .12*** |

the risk of sexual coercion victimization increased at each site for every one point increase on the SAH scale. Slope estimates close to zero would indicate that there was no association between sexual coercion and SAH. The larger the slope estimate, the more the rate of sexual coercion changed for each one-point increase in the SAH scale. As shown, slope estimates ranged from .20 to .53 for forced sex, and from .12 to .36 for verbal coercion.

Women

Descriptive information concerning the victimization from forced sex, verbal sexual coercion, and CSA for women is presented in Table 2. As shown, 2.3% of the sample overall reported sustaining forced sex from their current or most recent romantic partner, and close to 25% of the female sample sustained verbal sexual coercion. For the forced sex items (analyses not shown), 1.6% reported that their partners forced them into oral or anal sex, and 1.6% reported that their partners forced them into vaginal sex. For the verbal coercion items, 11.0% reported that their partners insisted on having sex without a condom, 14.7% that their partners insisted on vaginal sex, 8.3% that their partners insisted on oral or anal sex, 1.7% that their partners threatened them into having oral or anal sex, and 1.8% that their partners threatened them to have vaginal sex. Overall, as shown in Table 2, 32% of the female sample reported at least one type of CSA, with a mean of .66 different types of CSA.

Table 4 also presents the correlations between possible covariates and sustained sexual coercion for women, and Table 5 shows the intercorrelations between these covariates. Relationship length and social desirability were the only variables significantly correlated with forced sex, whereas age, relationship length, whether sex was a part of the relationship, and social desirability were correlated with verbal coercion. Specifically, relationship length and social desirability were negatively correlated with forced coercion, age and social desirability were negatively correlated with verbal coercion, and relationship length and sexual intercourse were positively associated with verbal coercion. In addition, SAH was significantly positively correlated with both forced sex and verbal sexual coercion. For HLM analyses, only the

 Table 5
 Intercorrelations among predictor variables

| | Age | Relationship length | Sex part of relationship | Social desirability | Sexual abuse history |
|-------------------------------------------|--------|---------------------|--------------------------|------------------------|-------------------------|
| Age | _ | | | | |
| Relationship length | | _ | | | |
| Men | .21*** | | | | |
| Women | .21*** | | | | |
| Sex part of the relationship ^a | | | _ | | |
| Men | .10*** | .27*** | | | |
| Women | .16*** | .31*** | | | |
| Social desirability | | | | _ | |
| Men | .06* | .06*** | 02 | | |
| Women | .03 | .08*** | 01 | | |
| Sexual abuse history | | | | | _ |
| Men | .01 | 03 | .01 | 12*** | |
| Women | .09*** | .03* | .08*** | 12*** | |

Note. For men, n = 2,084; For women, n = 5,583.

 ${}^{a}1 =$ Yes, 0 =No.

$$p^* < .05, p^* < .01, p^* < .001.$$

| Table 6Model predictingforced sex against men as a | Fixed effects | Coefficient | SE | <i>t</i> ratio | Odds ratio |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|--------------------------------------------|----------------------|
| function of the Status of Women, site-level Gender Hostility, and Sexual Abuse History | Overall forced sex, γ_{00} Status of Women Index, γ_{01} Gender Hostility to Men, γ_{02} Sexual Abuse History, γ_{10} | - 3.74 0.22 0.32 0.39 | .13 .08 .09 .08 | - 29.47*** 2.91** 3.73*** 4.64*** | 1.25 1.38 1.48 |
| <i>Note.</i> $SAH = Sexual Abuse$ | Random effects | Variance | df | χ^2 | |
| History. FS = Forced Sex. $p^* < .05, p^* < .01,$ $p^{***} < .001.$ | Site mean, u_{0j} SAH-FS slope, u_{1j} | .03 .03 | 35 37 | 28.30 47.97 | |

significant covariates and SAH were entered as predictors. Tables 8 and 9 present the final HLM models.

Differences in sexual coercion among sites

Inspection of the model presented in Table 8 indicated that Gender Hostility to Women significantly predicted forced sex, with every one point increase in this scale increasing the odds of forced sex by 57%. However, the Status of Women Index only approached significance, such that the lower the status of women, the higher the rate of forced sex. The significant chi-square for the site mean also suggested that there was still more variance to be explained for site level differences in rates of forced sexual coercion.

The model for verbal coercion showed a similar picture. In this model (Table 8), the Status of Women Index was not a significant predictor of variation among the sites, but Gender Hostility to Women was, in that for every point increase on the scale, the odds of women reporting verbal coercion increased 22%. In addition, the significant chi-square for the site mean indicated that there was still variance to be explained for these differences in verbal coercion.

Sexual abuse history as a predictor

For both forced sex (Table 8) and verbal sexual coercion (Table 9), SAH was a significant predictor. For forced sex, the odds of victimization were 1.18 times greater for each

function of the Status of Women, site-level Gender Hostility, and Sexual Abuse History Note. SAH = Sexual AbuseHistory. VSC = Verbal Sexual Coercion. ^aSex part of the relationship, 1 = Yes, 0 = No.*p < .05, **p < .01,***p < .001.

Table 7Model predictingverbal coercion against men as a

additional type of CSA experienced. Moreover, this association did not significantly differ across sites, as indicated by the non-significant chi-square for the slope. The association between SAH and verbal sexual coercion was also in the predicted direction; that is, the greater the number of different types of CSA, the higher the rate of verbal coercion. Specifically, for each additional type of CSA experienced, the odds of sustaining verbal coercion were 1.16 times greater. This association differed among the sites, however, as indicated by the significant chi-square for the slope. Table 10 presents the slope estimates for the associations between SAH and forced and verbal sexual coercion. As shown, slope estimates ranged from .16 at three sites to .22 at two sites for forced sex, and from - .01 to .28 for verbal coercion.

Discussion

The purposes of this study were to investigate whether site level differences in sexual coercion varied according to the status of women and the level of hostility towards the opposite sex, and whether sexual revictimization occurred across cultures and genders. There was little support for feminist theory regarding sexual coercion, but much support for the proposition that adversarial sexual beliefs were associated with differences in sexual coercion rates across sites. Moreover, sexual revictimization was a phenomenon that occurred across cultures and genders. The current study

| Fixed effects | Coefficient | SE | t ratio | Odds ratio |
|------------------------------------------------------------------|-------------|-----|---------------|------------|
| Overall verbal sexual coercion, γ_{00} | - 3.74 | .31 | - 11.98*** | |
| Status of Women Index, γ_{01} | 0.03 | .07 | 0.49 | 1.03 |
| Gender Hostility to Men, γ_{02} | 0.17 | .06 | 2.71** | 1.18 |
| Sex part of the relationship ^{<i>a</i>} , γ_{10} | 1.32 | .16 | 8.09*** | 3.76 |
| Relationship length, γ_{30} | 0.02 | .01 | 1.99* | 1.02 |
| Social desirability, γ_{40} | -0.91 | .15 | -6.09^{***} | 0.40 |
| Sexual Abuse History, γ_{50} | 0.25 | .05 | 4.70*** | 1.28 |
| Random effects | Variance | df | χ^2 | |
| Site mean, u_{0j} | .12 | 35 | 77.01*** | |
| SAH-VSC slope, u_{5j} | .01 | 37 | 44.77 | |

415

| Table 8Model predictingforced sex against women as a | Fixed effects | Coefficient | SE | t ratio | Odds ratio |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------|
| function of the Status of Women, site-level Gender Hostility, and Sexual Abuse History | Overall forced sex, γ_{00} Status of Women Index, γ_{01} Gender Hostility to Women, γ_{02} Relationship length, γ_{10} Social desirability, γ_{20} Sexual Abuse History, γ_{30} | $ \begin{array}{r} -3.89 \\ -0.21 \\ 0.45 \\ -0.01 \\ -0.39 \\ 0.17 \end{array} $ | .15 .12 .12 .01 .29 .05 | -25.70^{***} -1.79^{\dagger} 3.68^{***} -0.72 -1.33 3.50^{**} | 0.81 1.57 0.99 0.68 1.18 |
| <i>Note.</i> SAH = Sexual Abuse | Random effects | Variance | df | χ ² | |
| History. FS = Forced Sex. p < .10, p < .05, p < .01, p < .001, p < .001, p < .01, | Site mean, u_{0j} SAH-FS slope, u_{3j} | .43 .00 | 35 37 | 80.28*** 21.43 | |

is the largest and most comprehensive study to date to investigate these issues, in that there were data on sexual coercion and revictimization on both men and women from 38 sites around the world.

Feminist theory and adversarial sexual beliefs

Feminists would argue that when men are politically, educationally, and economically dominant on a societal level, the dynamics are carried over into romantic relationships, and men feel that they can dominate their female partners (e.g., Clark & Lewis, 1977; Dixon-Mueller, 1993; Russell, 1975). Thus, in societies in which men are dominant, men will use force to obtain sex when they want. However, in the current study, there was limited support for the theory that forced sex rates against women varied according to the status that women had in politics, education, and the workforce. Specifically, at sites where the status of women was greater, there was no significant decrease in the rates of verbal coercion victimization. The association between the status of women and forced sex against women approached significance, in that the greater their status, the lower the rates of forced sex; however, with a sample size as large as the current one, even small effect sizes should have been detected. It is important

to consider, however, that this sample consisted of university women, who are a particularly elite group of women, and in some of the sites, this fact becomes even more pertinent. Although the status of women may be low in their country, their relative status is quite high, and therefore, perhaps the status of women in their society as a whole bears less influence on how they are treated versus how other women in their society are treated. Thus, future research should strive to obtain samples of a more representative sample of women from an even greater number of nations.

On the other hand, the current study showed that when women's status increases in society, so does the level of forced sex against men. These results are consistent with the ideas of some researchers who suggest that when women gain increasing power in society, their gender roles shift in other areas as well, including romantic relationships (Anderson & Aymami, 1993). Thus, women may break from their gender roles in both public and private life and force sex within romantic relationships to assert their sexuality.

The results from this study provide strong support for the notion that adversarial sexual beliefs predict sexual coercion. That is, the site-level mean of gender hostility to men and women contributed to both verbal and forced sex against both genders: The more gender hostility towards women at a site, the greater the level of verbally coerced and forced sex

| Table 9Model predictingverbal sexual coercion against | Fixed effects | Coefficient | SE | <i>t</i> ratio | Odds ratio |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|---------------------------------|----------------------|
| women as a function of the Status of Women, site-level Gender Hostility, and Sexual | Overall verbal sexual coercion, γ_{00} Status of Women Index, γ_{01} | -3.68 -0.07 | .27 .06 | - 13.65*** - 1.30 | 0.93 |
| Abuse History | Gender Hostility to Women, γ_{02} Sex part of the relationship ^{<i>a</i>} , γ_{10} Age, γ_{20} | 0.20 1.42 -0.03 | .06 .15 .01 | 3.55*** 9.44*** - 3.42*** | 1.22 4.13 0.97 |
| | Relationship length, γ_{30} Social desirability, γ_{40} | 0.01 - 0.74 | .01 .11 | 1.99* - 6.60*** | 1.01 0.48 |
| Note. SAH: Sexual Abuse | Sexual Abuse History, γ_{50} | 0.15 | .03 | 4.45*** | 1.16 |
| History. VSC: Verbal Sexual Coercion. | Random effects | Variance | df | χ^2 | |
| $p^* < .05, p^* < .01,$ $p^{***} < .001.$ | Site mean, u_{0j} SAH-VSC slope, u_{5j} | .10 .02 | 35 37 | 134.97*** 68.16** | |

 Table 10
 Slope estimates for the prediction of sexual coercion by sexual abuse history

| Site | Men | | Women | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| | Forced coercion | Verbal coercion | Forced coercion | Verbal coercion |
| Asia | | | | |
| China, Hong Kong | .49 | .33 | .18 | .25 |
| India, Pune | .35 | .28 | .20 | .17 |
| Singapore | .46 | .21 | .18 | .18 |
| South Korea, Pusan | .35 | .27 | .21 | 01 |
| Australia/New Zealand | | | | |
| Australia, Adelaide | .32 | .18 | .16 | .14 |
| New Zealand | .40 | .28 | .19 | .18 |
| Canada | | | | |
| Canada, Hamilton | .44 | .22 | .20 | .07 |
| Canada, London | .41 | .25 | .22 | .26 |
| Canada, Quebec 1 | .48 | .25 | .18 | .08 |
| Canada, Quebec 2 | .41 | .24 | .19 | .06 |
| Canada, Toronto | .29 | .15 | .18 | .11 |
| Canada, Winnipeg | .40 | .28 | .17 | .12 |
| Europe | | | | |
| Belgium, Flemish | .34 | .34 | .16 | .21 |
| England, Leicester | .41 | .34 | .20 | .22 |
| Germany, Freiburg | .34 | .17 | .17 | .07 |
| Lithuania, Vilnius | .43 | .36 | .17 | .18 |
| Netherlands, Amsterdam | .40 | .32 | .17 | .12 |
| Portugal, Braga | .46 | .30 | .17 | .28 |
| Scotland, Glasgow | .41 | .25 | .17 | .16 |
| Sweden, Gavle | .41 | .31 | .18 | 01 |
| Swiss, Fribourg | | | | |
| French-speaking | .34 | .21 | .18 | .18 |
| German-speaking | .40 | .27 | .18 | .10 |
| Latin America | | | | |
| Brazil, Sao Paulo | .45 | .24 | .17 | .21 |
| Mexico, Northern | .37 | .28 | .20 | .09 |
| Middle East | | | | |
| Israel, Emek Yezreel | .41 | .28 | .20 | .10 |
| United States | | | | |
| USA, Indiana | .40 | .31 | .19 | .20 |
| USA, Louisiana | .33 | .13 | .19 | .21 |
| USA, Mississippi | .35 | .25 | .22 | .07 |
| USA, NH, Durham 1 | .38 | .20 | .17 | .10 |
| USA, NH, Durham 2 | .35 | .20 | .17 | .27 |
| USA, OH, Cincinnati | .48 | .24 | .16 | .01 |
| USA, Pennsylvania | .41 | .32 | .17 | .17 |
| USA, TX, Houston | .37 | .16 | .18 | .17 |
| USA, TX, Mexican-American | .20 | .14 | .18 | .17 |
| USA, TX, Non-Mexican-American | .36 | .12 | .18 | .21 |
| USA, TX, Nacogdoches | .53 | .25 | .17 | .07 |
| USA, Utah, Logan | .37 | .29 | .19 | .25 |
| USA, Washington, DC | .34 | .29 | .19 | .14 |
| | т | / | .1/ | ,17 |

women sustained, and the greater the level of gender hostility towards men, the higher the rates of verbally coerced and forced sex against men. These results are consistent with the notion that it is not just the relative status of the partners in the relationship that influences the level of sexual coercion, but also the societal beliefs concerning how adversarial romantic relationships are. When people are socialized to view relationships as deceptive, manipulative, and exploitative, and when the normative view is that relationships are a means of gaining power, rather than of sharing love and tenderness, they are more likely to verbally or forcefully coerce sex from their partners (e.g., Anderson, 1996; Brownmiller, 1976; Craig Shea, 1998). These results point towards a means of reducing sexual coercion within relationships. Specifically, people should be educated to view relationships as mutually pleasurable and supportive, and to respect the other person's rights to accept or decline sexual advances.

It is also important to note, however, that these results are correlational, and therefore, causal statements cannot be made. Although the measures of gender hostility were used to predict sexual coercion, the causal role could conceivably be reversed: Because people at these sites experienced higher rates of sexual coercion, it could have led to more hostile gender beliefs and attitudes. Another important caveat concerns the differences between the two site-level predictors of sexual coercion: Unlike the Status of Women Index, which was characteristic of the nation in which the university was located, the Gender Hostility scales were site-specific, and therefore, the level of gender hostility at each site cannot be generalized to the nation in which the university was located. Moreover, the fact that the Gender Hostility scale was site-specific could explain why gender hostility and not the status of women was a stronger and more consistent predictor of variations in sexual coercion. Specifically, the Gender Hostility measure was more proximal to the study participants and, therefore, would exert a stronger influence on their sexual relationships.

In sum, the extent to which relationships are viewed as adversarial and (to a lesser extent) the relative status of women in society predicted why societies differed in levels of sexual coercion. However, there is still variance to be explained in the differences in levels of sexual coercion, particularly for verbal coercion against both genders and forced sex against women. Thus, future research should investigate further reasons for these differences. For example, different rates of reporting sexual coercion across sites could be affected by cultural differences in willingness and acceptability of disclosing such information (Urquiza & Goodlin-Jones, 1994). In addition, differences between sites in rates of sexual coercion could be influenced by the availability and acceptability of pornography, levels of poverty, and/or the degree of social unrest in a society, all variables that have been shown to vary with rape rates across the 50 states within the United States (Jaffee & Straus, 1987), but have shown mixed results on a cross-cultural level (Malamuth, Addison, & Koss, 2000).

Sexual revictimization

Struckman-Johnson & Struckman-Johnson, 1994). Moreover, the research has primarily been conducted within the United States, and there could be important variations in sexual revictimization across cultures (Urquiza & Goodlin-Jones, 1994). In the current study, it was found that across 38 sites from around the world, a history of CSA predicted the likelihood of a person sustaining both verbal and forced sexual coercion in the past year of their current or most recent romantic relationship. Sexual revictimization occurred for both men and women. Moreover, with the exception of verbal coercion against women, the sexual revictimization association did not differ across sites. Thus, sexual revictimization seems to be a cross-cultural phenomenon.

The results of this study were not only consistent with the many studies that provide evidence for sexual revictimization among women (e.g., Roodman & Clum, 2001), but also those that show that it exists for men in heterosexual relationships (e.g., Desai et al., 2002). The current results were also consistent with those that provide evidence of sexual revictimization in other countries and cultures, including youth in New Zealand (Fergusson et al., 1997), and Blacks and Latinas within the United States (Merrill et al., 1999; Urquiza & Goodlin-Jones, 1994). A next step would be to understand why sexual revictimization occurs. Several theories and mediational models have been advanced, but thus far, they have concentrated on women-as-victims and men-as-perpetrators. For example, it has been suggested that victims of CSA may engage in certain behaviors, such as substance abuse, in order to avoid having to deal with the emotions that the CSA has caused in them. These behaviors, in turn, put them at risk for future victimization (e.g., Burnam et al., 1988; Polusny & Follette, 1995). Given the above results, it is important to test such theories not only in women, but also in men and people from other countries and cultures.

Limitations and future research

Although the current study had considerable strengths in that it included a large sample of both men and women from around the world, there were several limitations that should be considered in future research on cross-cultural and gender differences in predictors of sexual coercion. For example, the current study used college students as its sample, and although some researchers suggest that college students are an ideal population to study because most adult victims are in their late teens and early twenties when they are sexually assaulted (e.g., Struckman-Johnson, 1991), others argue that college students are still quite young and revictimization rates could be higher among older adults because they have had more time with which to experience adult sexual victimization (Roodman & Clum, 2001). Indeed, in a metaanalysis on sexual revictimization, effect sizes increased as the age of the participants increased (Roodman & Clum, 2001). Moreover, college students may not be representative of the population in general; for example, people who are most at risk for adult revictimization may never appear in college student samples because the effect of their CSA may be so severe that they would not be able to succeed in the college environment. This problem may be exacerbated in the current study because the Status of Women Index was based on societal-level measures, and the convenience samples at each site may not reflect the societal-level values. That is, the 38 sites that participated in the current study may not be representative of the countries and cities in which they are located, nor are they exhaustive of all possible cultures from around the world. Thus, future studies should strive to obtain representative data from other cultures as well.

Future studies should also use other measures of CSA and sexual coercion within romantic relationships to further validate the present results. The measure of CSA used in this study included both contact and non-contact types of CSA, and studies have shown that broader definitions of CSA, such as the one in this study, show weaker associations with adult sexual victimization (Roodman & Clum, 2001). Although, in the current study, the ability to find an association was increased by using a count of the types of CSA participants experienced as the predictor (rather than a dichotomous CSA variable), future research should investigate these cross-cultural associations using different definitions of CSA. Moreover, the definition of CSA used in the current study included CSA that occurred as either a child or an adolescent, and the questions were worded such that it was impossible to separate adolescent sexual abuse from prepubescent sexual abuse. There could be important distinctions in the associations with adult sexual victimization between sexual abuse experienced as a child versus as an adolescent. For example, research shows that abuse experienced as an adolescent is a stronger predictor than abuse experienced prior to adolescence for adult sexual victimization (e.g., Siegel & Williams, 2003). Thus, future research should tease apart the relative contributions of sexual abuse experienced as an adolescent versus sexual abuse experienced as a child. Finally, the CSA measure only asked whether each type of abuse ever happened, and did not ask about frequency, severity, or duration of the abuse, variables that could affect the likelihood of revictimization. Thus, future studies should investigate the contribution of these aspects of CSA to revictimization cross culturally and across genders.

In addition, it is important to stress that the current study was correlational. Therefore, for example, it is unknown whether a history of CSA caused victimization in the participants' adult romantic relationships. As previously discussed, mediational variables should be investigated, but possible recall biases should be considered when interpreting the results of this study. That is, it is possible that participants who reported adult sexual victimization on the *CTS* were primed to recall CSA when completing the SAH scale. Therefore, associations between CSA and adult sexual victimization may be due to biases in recall, and not a true association. The likelihood of this occurring is reduced by the fact that the eight CSA questions were randomly imbedded in the *PRP*, a questionnaire that contains over 180 items, and that the seven sexual coercion questions were imbedded in the 78-item *CTS*. Nonetheless, it is possible that recall biases were operating for the participants.

The associations found in the current study should also be investigated among gays and lesbians. Rates of sexual coercion in gay and lesbian relationships vary from 12 to 53% depending upon the definition of sexual coercion and the sample type (Hickson, Davies, Hunt, & Weatherburn, 1994; Kalichman et al., 2001; Kalichman & Rompa, 1995; Turrell, 2000; Waterman et al., 1989), and there is some evidence for sexual revicitmization in this population (Girshick, 2002; Kalichman et al., 2001). These preliminary results need to be replicated, and it is unknown whether these associations exist across cultures. Because of a small sample size of gays and lesbians in this sample, these analyses could not be conducted; however, future research should strive to obtain a large enough sample of gays and lesbians to explore these issues.

Finally, the measure of adult sexual victimization in the current study may not have captured all the sexual victimization experiences of the participants. For example, participants reported only sexual victimization experiences in the past year of their current or most recent romantic relationship, and therefore, any prior sexual victimization experiences would not have been captured. Furthermore, the measure did not ask whether the participants were given alcohol in order to lower either their inhibitions against engaging in or their ability to resist sexual behavior, an occurrence that is common among college students in the United States and is considered a form of sexual coercion (e.g., Lottes & Weinberg, 1996). Thus, the current study's estimates of the strength of sexual revictimization could have been underestimated, and future research should replicate the present results using a more inclusive definition of adult sexual victimization.

The current study tested possible reasons for sexual victimization in adult romantic relationships. There was limited support for the notion that the status of women in a society was associated with her likelihood of being victimized sexually by her romantic partner, although there was evidence that an increased status of women was associated with an increased likelihood of forced sex against men in heterosexual romantic relationships. Moreover, there was strong evidence in support of the proposition that adversarial beliefs concerning romantic relationships were associated with the

level of sexual coercion. That is, for both men and women, the more a site professed hostile beliefs about the opposite sex, the greater the likelihood that both men and women reported verbal and forced sexual coercion victimization. Finally, although there was strong evidence concerning sexual revictimization for women in the United States, few researchers have considered these associations across cultures or for men. The current study provided evidence that the associations between a history of CSA and adult sexual victimization in romantic relationships occur across cultures and genders. Although the current study used only college students, it has the benefit of providing a test of these hypotheses on a cross-cultural level, which few, if any, previous studies have done. In addition, because the current study contained a large sample of both male and female college students, these theories could be tested for both genders. Finally, because the same measures were used at each of the 38 sites around the world, possible site-level influences on differences in the associations could be investigated.

Appendix

Sexual Abuse History (SAH) Scale of the Personal and Relationships Profile (PRP)

The SAH scale is one of 23 scales that comprise the PRP (Straus et al., 1999). The full PRP and information on the reliability and validity of each of the scales is available on http://pubpages.unh.edu/ \sim mas2

By Adult in Family

- 1. Before I was 18, an adult in my family made me look at or touch their private parts (sex organs), or looked at or touched mine.
- 2. Before I was 18, an adult in my family had sex with me (vaginal, anal, or oral).

By Adult Non-Family

- 3. Before I was 18, an adult who was not part of my family made me look at or touch their private parts (sex organs), or looked at or touched mine.
- 4. Before I was 18, an adult who was not part of my family had sex with me (vaginal, anal, or oral). *By Child in Family*
- 5. Before I was 18, another kid in my family made me look at or touch their private parts (sex organs), or looked at or touched mine.
- Before I was 18, another kid in my family did things to me that I now think was sexual abuse. By Child Non-Family
- 7. Before I was 18, another kid who was not part of my family made me look at or touch their private parts (sex organs), or looked at or touched mine.

8. Before I was 18, another kid who was not part of my family did things to me that I now think was sexual abuse.

Acknowledgments This work was supported by the National Institute of Mental Health grant T32MH15161 and by the University of New Hampshire. Special thanks go to the Family Research Laboratory and Crimes Against Children Research Center's seminar participants for their valuable comments and suggestions on a previous draft of this article. This article is part of the International Dating Violence Study. Other papers from that study can be downloaded from http://pubpages.unh.edu/~ mas2.

References

- Aizenman, M., & Kelley, G. (1988). The incidence of violence and acquaintance rape in dating relationships among college men and women. *Journal of College Student Development*, 29, 305–311.
- Anderson, P. B. (1996). Correlates of college women's self-reports of heterosexual aggression. Sexual Abuse: A Journal of Research and Treatment, 8, 121–131.
- Anderson, P. B. (1998). Variations in college women's self-reported heterosexual aggression. Sexual Abuse: A Journal of Research and Treatment, 10, 283–292.
- Anderson, P. B., & Aymami, R. (1993). Reports of female initiation of sexual contact: Male and female differences. *Archives of Sexual Behavior*, 22, 335–344.
- Baier, J. L., Rosenzweig, M. G., & Whipple, E. G. (1991). Patterns of sexual behavior, coercion, and victimization of university students. *Journal of College Student Development*, 32, 310–322.
- Baron, L., & Straus, M. A. (1984). Sexual stratification, pornography, and rape in the United States. In N. Malamuth & E. Donnerstein (Eds.), *Pornography and sexual aggression* (pp. 185–209). San Francisco: Academic Press.
- Bohn, D. K. (2003). Lifetime physical and sexual abuse, substance abuse, depression, and suicide attempts among Native American women. *Issues in Mental Health Nursing*, 2, 333–352.
- Brownmiller, S. (1976). Against our will: Men, women, and rape. New York: Bantam.
- Burke, P. J., Stets, J. E., & Pirog-Good, M. A. (1988). Gender identity, self-esteem, and physical and sexual abuse in dating relationships. *Social Psychology Quarterly*, 51, 272–285.
- Burnam, M. A., Stein, J. A., Golding, J. M., Siegel, J. M., Sorenson, S. B., Forsythe, A. B., et al. (1988). Sexual assault and mental disorders in a community population. *Journal of Consulting and Clinical Psychology*, 56, 843–850.
- Burt, M. R. (1980). Cultural myths and supports for rape. Journal of Personality and Social Psychology, 38, 217–230.
- Clark, L., & Lewis, D. (1977). *Rape: The price of coercive sexuality*. Toronto: Women's Press.
- Cloitre, M., Tardiff, K., Marzuk, P. M., Leon, A. C., & Portera, L. (1996). Childhood abuse and subsequent sexual assault among female inpatients. *Journal of Traumatic Stress*, 9, 473–482.
- Coid, J., Petruckevitch, A., Feder, G., Chung, W., Richardson, J., & Moorey, S. (2001). Relation between childhood sexual and physical abuse and risk of revictimisation in women: A cross-sectional survey. *Lancet*, 358, 450–454.
- Craig Shea, M. E. (1998). When the tables are turned: Verbal sexual coercion among college women. In P. B. Anderson & C. Struckman-Johnson (Eds.), *Sexually aggressive women: Current perspectives* and controversies (pp. 94–104). New York: Guilford Press.
- Desai, S., Arias, I., Thompson, M. P., & Basile, K. C. (2002). Childhood victimization and subsequent adult revictimization assessed in a nationally representative sample of women and men. *Violence and Victims*, 17, 639–653.

- Dixon-Mueller, R. (1993). The sexuality connection in reproductive health. *Studies in Family Planning*, 24, 269–282.
- Fergusson, D. M., Horwood, J. L., & Lynskey, M. T. (1997). Childhood sexual abuse, adolescent sexual behaviors, and sexual revictimization. *Child Abuse and Neglect*, 21, 789–803.
- Fiebert, M. S., & Osburn, K. (2001). Effect of gender and ethnicity on self reports of mild, moderate, and severe sexual coercion. *Sexuality and Culture*, 5, 3–11.
- Fiebert, M. S., & Tucci, L. M. (1998). Sexual coercion: Men victimized by women. *Journal of Men's Studies*, 6, 127–133.
- Fleming, J., Mullen, P. E., Sibthorpe, B., & Bammer, G. (1999). The long-term impact of childhood sexual abuse in Australian women. *Child Abuse and Neglect*, 23, 145–159.
- Forbes, G. B., & Adams-Curtis, L. E. (2001). Experiences with sexual coercion in college males and females: Role of family conflict, sexist attitudes, acceptance of rape myths, self-esteem, and the Big-Five personality factors. *Journal of Interpersonal Violence*, 16, 865–889.
- Gidycz, C. A., Coble, C. N., Latham, L., & Layman, M. J. (1993). Sexual assault experience in adulthood and prior victimization experiences. *Psychology of Women Quarterly*, 17, 151–168.
- Gidycz, C. A., Hanson, K., & Layman, M. J. (1995). A prospective analysis of the relationships among sexual assault experiences. *Psychology of Women Quarterly*, 19, 5–29.
- Girshick, L. B. (2002). No sugar, no spice: Reflections on research on woman-to-woman sexual violence. *Violence Against Women*, 8, 1500–1520.
- Hickson, F. C., Davies, P. M., Hunt, A., & Weatherburn, P. (1994). Gay men as victims of nonconsensual sex. *Archives of Sexual Behavior*, 23, 281–294.
- Jaffee, D., & Straus, M. A. (1987). Sexual climate and reported rape: A state-level analysis. Archives of Sexual Behavior, 16, 107–123.
- Kalichman, S. C., & Rompa, D. (1995). Sexually coerced and noncoerced gay and bisexual men: Factors relevant to risk for human immunodeficiency virus (HIV) infection. *Journal of Sex Research*, 32, 45–50.
- Kalichman, S. C., Benotsch, E., Rompa, D., Gore-Felton, C., Austin, J., Luke, W., et al. (2001). Unwanted sexual experiences and sexual risks in gay and bisexual men: Associations among revictimization, substance use, and psychiatric symptoms. *Journal of Sex Research*, 38, 1–9.
- Kanin, E. J. (1985). Date rapists: Differential sexual socialization and relative deprivation. Archives of Sexual Behavior, 14, 219–231.
- King, M. B., Coxell, A., & Mezey, G. C. (2000). The prevalence and characteristics of male sexual assault. In G. C. Mezey & M. B. King (Eds.), *Male victims of sexual assault* (2nd ed., pp. 1–15). New York: Oxford University Press.
- Koss, M. P., Leonard, K. E., Beezley, D. A., & Oros, C. A. (1985). Nonstranger sexual aggression: A discriminant analysis of the psychological characteristics of undetected offenders. *Sex Roles*, *12*, 981–992.
- Krahé, B., Scheinberger-Olwig, R., & Bieneck, S. (2003). Men's reports of nonconsensual sexual interactions with women: Prevalence and impact. Archives of Sexual Behavior, 32, 165–175.

Lawson, A. (1988). Adultery. New York: Basic Books.

- Lottes, I. L. (1985). The use of cluster analysis to determine belief patterns of sexual attitudes. *Journal of Sex Research*, 21, 405– 421.
- Lottes, I. L. (1991). Belief systems: Sexuality and rape. Journal of Psychology and Human Sexuality, 4, 37–59.
- Lottes, I. L., & Weinberg, M. S. (1996). Sexual coercion among university students: A comparison of the United States and Sweden. *Journal of Sex Research*, 34, 67–76.
- Malamuth, N. M., Addison, T., & Koss, M. (2000). Pornography and sexual aggression: Are there reliable effects and can we understand them? *Annual Review of Sex Research*, 11, 26–91.

- Merrill, L. L., Newell, C. E., Thomsen, C. J., Gold, S. R., Milner, J. S., Koss, M. P., et al. (1999). Childhood abuse and sexual revictimization in a female Navy recruit sample. *Journal of Traumatic Stress*, 12, 211–225.
- Muehlenhard, C. L., Highby, B. J., Lee, R. S., Bryan, T. S., & Dodrill, W. A. (1998). The sexual revictimization of women and men sexually abused as children: A review of the literature. *Annual Review of Sex Research*, 9, 177–244.
- Muehlenhard, C. L., & Linton, M. A. (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal* of Counseling Psychology, 34, 186–196.
- O'Sullivan, L. F., & Byers, E. S. (1992). College students' incorporation of initiator and restrictor roles in sexual dating relationships. *Journal of Sex Research*, 29, 435–446.
- Polusny, M. A., & Follette, V. M. (1995). Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied and Preventive Psychology*, *4*, 143–166.
- Poppen, P. J., & Segal, N. J. (1988). The influence of sex and sex role orientation on sexual coercion. Sex Roles, 19, 689–701.
- Randall, M., & Haskell, L. (1995). Sexual violence in women's lives: Findings from the Women's Safety Project, a community-based survey. *Violence Against Women*, 1, 6–31.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Roodman, A. A., & Clum, G. A. (2001). Revictimization rates and method variance: A meta-analysis. *Clinical Psychology Review*, 21, 183–204.
- Rouse, L. P. (1988). Abuse in dating relationships: A comparison of blacks, whites, and Hispanics. *Journal of College Student Devel*opment, 29, 312–319.
- Russell, D. E. H. (1975). *The politics of rape*. New York: Stein and Day.
- Russell, D. E. H. (1986). The secret trauma: Incest in the lives of girls and women. New York: Basic Books.
- Safilios-Rothschild, C. (1977). Love, sex, and sex roles. Englewood Cliffs, NJ: Prentice Hall.
- Sanday, P. R. (1981). The socio-cultural context of rape: A crosscultural study. *Journal of Social Issues*, 37, 5–27.
- Siegel, J. A., & Williams, L. M. (2003). Risk factors for sexual victimization of women: Results from a prospective study. *Violence Against Women*, 9, 902–930.
- Spitzberg, B. H. (1999). An analysis of empirical estimates of sexual aggression victimization and perpetration. *Violence and Victims*, 14, 241–260.
- Stets, J. E., & Pirog-Good, M. A. (1989). Patterns of physical and sexual abuse for men and women in dating relationships: A descriptive analysis. *Journal of Family Violence*, 4, 63–76.
- Stevenson, M. R., & Gajarsky, W. M. (1991). Unwanted childhood sexual experiences relate to later revictimization and male perpetration. *Journal of Psychology and Human Sexuality*, 4, 57–70.
- Straus, M. A. (1969). Phenomenal identity and conceptual equivalence of measurement in cross-national comparative research. *Journal* of Marriage and the Family, 31, 233–239.
- Straus, M. A. (2004). Cross cultural reliability and validity of the Revised Conflict Tactics Scales: A study of university student dating couples in 17 nations. *Cross-Cultural Research*, 38, 407– 432.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. (1996). The Revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17, 283– 316.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. (1999). The personal and relationships profile (PRP). Durham, NH: University of New Hampshire, Family Research Laboratory. Available at http://pubpages.unh.edu/~mas2/.

- Straus, M. A., & Members of the International Dating Violence Research Consortium. (2004). Prevalence of violence against dating partners by male and female university students worldwide. *Violence Against Women*, 10, 790–811.
- Straus, M. A., & Mouradian, V. E. (1999). Preliminary psychometric data for the Personal and Relationships Profile (PRP): A multi-scale tool for clinical screening and research on partner violence. Durham, NH: University of New Hampshire, Family Research Laboratory. Available at http://pubpages.unh.edu/ ~ mas2/prp.htm.
- Struckman-Johnson, C. (1988). Forced sex on dates: It happens to men, too. *Journal of Sex Research*, 24, 234–241.
- Struckman-Johnson, C. (1991). Male victims of acquaintance rape. In A. Parrot & L. Bechhofer (Eds.), *Acquaintance rape: The hidden crime* (pp. 192–213). New York: Wiley.
- Struckman-Johnson, C., & Struckman-Johnson, D. (1994). Men pressured and forced into sexual experience. Archives of Sexual Behavior, 23, 93–114.
- Swanston, H. Y., Parkinson, P. N., Oates, R. K., O'Toole, B. I., Plunkett, A. M., & Shrimpton, S. (2002). Further abuse of sexually abused children. *Child Abuse and Neglect*, 26, 115–127.

- Turrell, S. C. (2000). A descriptive analysis of same-sex relationship violence for a diverse sample. *Journal of Family Violence*, 15, 281–293.
- Urquiza, A. J., & Goodlin-Jones, B. L. (1994). Child sexual abuse and adult revictimization with women of color. *Violence and Victims*, 9, 223–232.
- Warshaw, R., & Parrot, A. (1991). The contribution of sex-role socialization to acquaintance rape. In A. Parrot & L. Bechhofer (Eds.), *Acquaintance rape: The hidden crime* (pp. 73–82). New York: Wiley.
- Waterman, C. K., Dawson, L. J., & Bologna, M. J. (1989). Sexual coercion in gay male and lesbian relationships: Predictors and implications for support services. *Journal of Sex Research*, 26, 118–124.
- White, J. W., & Kowalski, R. M. (1994). Deconstructing the myth of the nonaggressive woman: A feminist analysis. *Psychology of Women Quarterly*, 18, 487–508.
- World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: Initial results on prevalence, health outcomes and women's responses. Geneva: Author.