Prevalence of Sexual Aggression Victimization and Perpetration in a Sample of Female and Male College Students in Turkey

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In Turkey, there is a shortage of studies on the prevalence of sexual aggression among young adults. The present study examined sexual aggression victimization and perpetration since the age of 15 in a convenience sample of N = 1,376 college students (886 women) from four public universities in Ankara, Turkey. Prevalence rates for different coercive strategies, victim-perpetrator constellations, and sexual acts were measured with a Turkish version of the Sexual Aggression and Victimization Scale (SAV-S). Overall, 77.6% of women and 65.5% of men reported at least one instance of sexual aggression victimization, and 28.9% of men and 14.2% of women reported at least one instance of sexual aggression perpetration. Prevalence rates of sexual aggression victimization and perpetration were highest for current or former partners, followed by acquaintances/friends and strangers. Alcohol was involved in a substantial proportion of the reported incidents. The findings are the first to provide systematic evidence on sexual aggression perpetration and victimization among college students in Turkey, including both women and men.

Experiencing sexual relationships based on consensus and mutual respect of sexual self-determination is an important developmental goal in emerging adulthood (Vanwesenbeeck, 2008). However, a large body of evidence has shown that experiencing and engaging in sexual aggression is widespread in this developmental period (for a review, see Krahé, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014) and is linked to a range of negative physical, behavioral, and mental health outcomes (Martin, Macy, & Young, 2011). The World Health Organization (WHO, 2014) defines sexual violence broadly as “any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed against a person’s sexuality using coercion, by any person regardless of their relationship to the victim, in any setting including but not limited to home and work” (p. 76). Building on this definition, sexual aggression is considered in the current study as behavior carried out with the intent or result of making another person engage in sexual activity despite his or her unwillingness to do so (Krahé et al., 2015), comprising different coercive strategies and sexual acts in different victim-perpetrator relationships.

Sexual violence is recognized as a worldwide problem, whereby the available large-scale international surveys have focused on female victims of male sexual violence (Abrahams et al., 2014; WHO, 2013). It is particularly prevalent among young adults and college students (Krahé et al., 2014; Krahé et al., 2015; Sinozich & Langton, 2014). For example, in the National Intimate Partner and Sexual Violence Survey 2011 conducted in the United States, 19.3% of women and 1.7% of men reported a lifetime experience of rape, defined as completed or attempted forced penetration or alcohol- or drug-facilitated penetration (Breiding et al., 2014). Higher victimization estimates were found for sexual violence other than rape, including, for example, sexual coercion and unwanted sexual contact, with rates of 43.9% for women and 23.4% for men. Further, Abbey, Jacques-Tiura, and LeBreton (2011) investigated sexually aggressive behaviors (e.g., sexual touch, oral intercourse, vaginal intercourse) among men since age 14 and found a perpetration rate of 43.3%.

The majority of past studies have focused on women as victims and men as perpetrators of sexual aggression. However, there is evidence that men may be victims of sexual aggression (Peterson, Voller, Polusny, & Murdoch, 2011), and women may be perpetrators (Fisher & Pina, 2013). In a cross-cultural study by Chan, Straus,
Brownridge, Tiwari, and Leung (2008), both men and women were asked about experiencing and engaging in sexual coercion in dating relationships in the past 12 months. Between 8.7% (Hong Kong) and 59.5% (Greece) of men and between 9.2% (Netherlands) and 42% (Greece) of women reported that they had experienced sexual coercion. Sexually coercing another person was reported by both men, ranging between 9.3% (Hong Kong) and 62.2% (Greece), and women, ranging between 5.9% (Belgium) and 28.9% (Brazil). More recently, a study with college students in 10 European countries on sexual aggression since the (country-specific) age of consent found a male victimization rate of 27.1% compared to a female victimization rate of 32.2% (Krahé et al., 2015). In several countries included in the study, victimization rates were higher for men than for women. Both gender groups were also asked about perpetration behavior. Although women’s perpetration rate across all 10 countries was substantially lower than men’s (5.0% vs. 16.3%), women’s sexual aggression perpetration is a problem that requires further attention.

Regarding the relationship constellation between victim and perpetrator, a common finding is that incidents of sexual aggression mainly take place between persons who know each other, often as intimate partners (Krahé et al., 2015). With respect to the situational context of sexual aggression, a wide range of studies have documented the critical role of alcohol. As estimated by Abbey, Zawacki, Buck, Clinton, and McAuslan (2004), alcohol use by the perpetrator, the victim, or both is involved in almost every second incident of sexual assault. Studies also suggest that alcohol use is more likely in constellations in which the victim and the perpetrator did not know each other well (Abbey, Clinton-Sherrod, McAuslan, Zawacki, & Buck, 2003; Ullman, Karabatsos, & Koss, 1999). Alcohol plays a role both as a coercive strategy (purposefully administering alcohol to a prospective victim or exploiting the fact that the prospective victim is too drunk to resist) or as a facilitator or excuse (Abbey et al., 2004).

STUDIES ON THE PREVALENCE OF SEXUAL AGGRESSION IN TURKEY

In contrast to the sustained research efforts in Western countries, evidence on the prevalence of sexual aggression in Turkey is still limited. Turkey is a country strongly influenced by Western modernization but at the same time rooted in traditional Islamic culture (Gelbal, Duyan, & Öztürk, 2008). A great part of Turkish society can be characterized as traditional, with patriarchal values and unequal opportunities for men and women (Kocacık, Kutlar, & Erselcan, 2007; Yüksel-Kaptanoğlu, Türkylmaz, & Heise, 2012). On the Gender Inequality Index, which ranks countries in terms of inequalities between women and men in reproductive health, empowerment, and economic status, Turkey occupies a middle position (71 out of 155 countries; United Nations Development Programme, 2015). At the individual level, only 56.9% of male college students from Eastern Turkey believed in gender equality, and 44.8% approved honor killings (Adana et al., 2011). Men hold a dominant position and have authority over family members, whereas the role of women is to take care of the family (Sakalli, 2001). Arranged marriages are common (Yüksel-Kaptanoğlu et al., 2012), undermining self-determination of both men and women. Estimates for intimate partner violence against women range between 13% and 78% (for a review, see Gucvenc, Akyuz, & Cesario, 2014). Honor concerns, such as family honor which emphasizes a family’s social reputation and women’s premartial virginity, are still prevalent (Van Osch, Breugelmans, Zeelenberg, & Bölük, 2013) and contribute to the family’s control over the female body (Cindoğlu, 1997). These facets of Turkish society are related to taboos regarding sexuality in general and premarital sex in particular (Cindoğlu, 1997; Gelbal et al., 2008).

To our knowledge, there are five studies to date with college student samples, and these have mainly focused on sexual aggression in dating relationships. In these studies, prevalence rates of female victimization ranged between 0% and 84% (Aslan et al., 2008; Kabasakal & Girli, 2012; Kayı, Yavuz, & Arcan, 2000; Toplu-Demirtaş, Hatiçoğlu-Sümür, & White, 2013; Yiğitap, Ertem, & Özkanak, 2007). Only two studies investigated male sexual victimization (27.9%, Kabasakal & Girli, 2012; 0%, Yiğitap et al., 2007), and only one study (Aslan et al., 2008) measured perpetration of sexual violence in a small female sample, revealing a prevalence of 11.1%. No study has yet been conducted examining male perpetration. The wide range in the prevalence estimates for sexual victimization may be linked to several methodological limitations. First, sexual victimization was defined in a broad way, incorporating, for example, dirty talking (e.g., Kayı et al., 2000), or in a narrow way, including only forced sexual intercourse (e.g., Aslan et al., 2008). Second, sexual victimization was typically measured with one or few screening items (e.g., Yiğitap et al., 2007), which has been shown to result in lower prevalence rates than more differentiated forms of assessment (see Koss, 1993). Third, several studies failed to consider the age of consent to separate incidents of sexual aggression from child sexual abuse (e.g., Kayı et al., 2000). Fourth, the variation in time periods, ranging from the past 15 days (e.g., Yiğitap et al., 2007) to no limit (e.g., Kayı et al., 2000), has a critical impact on the prevalence estimates.

THE CURRENT STUDY

The purpose of our study was to examine the prevalence of sexual aggression victimization and perpetration in a large sample of female and male college students in Turkey. We distinguished between different coercive strategies, victim-perpetrator relationships, and sexual acts to get a clear picture of the different forms and constellations of
victimization experiences and perpetration behaviors. By using an instrument that presents behaviorally specific questions for specified time periods that was tested in prior cross-cultural research, we addressed shortcomings of previous studies and collected the first extensive and detailed data set on both sexual aggression perpetration and victimization among male and female college students at four Turkish universities.

In line with previous studies and measures of sexual aggression (Koss et al., 2007; Krahé et al., 2015), we assessed the prevalence of three coercive strategies: the use or threat of physical force, the exploitation of the victim’s inability to resist due to incapacitation, and the use of verbal pressure. These coercive strategies were combined with four sexual acts, namely sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual acts (e.g., oral sex). Extending the scope of previous measures, we examined victimization and perpetration reports in three victim-perpetrator constellations: current or former intimate partners, friends or acquaintances, and strangers.

On the basis of the extant literature, we expected that more women than men would report sexual aggression victimization, whereas more men than women would report perpetration. Regarding the victim-perpetrator relationship constellations, there is conclusive evidence from past research that, in the majority of incidents, victims and perpetrators are known to each other. Therefore, we predicted that both victimization and perpetration rates would be higher among current or former partners and among friends or acquaintances than among strangers. Past research has been similarly consistent in showing that alcohol is involved in about half of all incidents of sexual aggression perpetration and victimization. Therefore, we expected to find evidence of alcohol use in a substantial proportion of the reported incidents. In addition, we expected that the use of alcohol would be more common in sexual assault incidents between strangers.

METHOD

Participants

A total of $N = 1,593$ university students (1,010 female, 583 male) from four different state universities in Ankara, Turkey, participated in the study. They were enrolled in a broad range of subjects. From this sample, participants were excluded if they were aged under 18 years or 30 years and above ($n = 76$) because the focus of the study was on young adults. A further 141 participants were excluded because they self-identified as gay/lesbian (16 female, 29 male), bisexual (68 female, 25 male), or did not indicate their sexual orientation (1 female, 2 male). The decision not to include these participants was based on the fact that they differed significantly from heterosexual participants in their sexual behavior (e.g., lower age at first sexual intercourse, higher number of sexual partners). At the same time, the nonheterosexual participants were not a homogeneous group, differing in sexual behavior patterns (e.g., gay men/lesbians had a younger age at first sexual intercourse compared to bisexuals). Separate analyses of prevalence rates among gay/lesbian and bisexual participants were precluded by the small $n$s of these groups and would not have yielded reliable conclusions. The final sample consisted of $N = 1,376$ heterosexual participants (886 female, 490 male) with a mean age of 21.8 years ($SD = 2.36$, range 18 to 29 years). Men were significantly older ($M = 22.0$ years, $SD = 2.53$) than women ($M = 21.6$ years, $SD = 2.26$), $t (910) = -2.92$, $p < .01$. Almost all participants (96.7%) were Turkish nationals. In terms of religious affiliation, 62.5% of participants self-identified as Muslims, 1.0% as Deists, 0.3% as Christians, and 0.1% as Buddhists; 35.9% reported no religious affiliation. Men (87.0%) and women (83.5%) reported similar rates of noncoital sexual experiences, such as kissing and sexual touch, $\chi^2 (1, N = 1,367) = 2.97$, $p = .085$, but significantly more men (64.9%) than women (53.3%) had experience of consensual sexual intercourse, $\chi^2 (1, N = 1,376) = 17.44$, $p < .001$. Age at first sexual intercourse was lower among men ($M = 18.3$, $SD = 2.26$) than among women ($M = 19.1$, $SD = 2.04$), $t (591) = 4.84$, $p < .001$. The majority of participants (84.9% of females, 83.8% of males) indicated that they were in a steady relationship at the time of the survey or had been in one in the past, and the gender difference was nonsignificant, $\chi^2 (1, N = 1,366) = 0.29$, $p = .588$. However, men had a higher number of sexual partners ($M = 3.06$, $SD = 3.94$) compared to women ($M = 1.98$, $SD = 2.90$), $t (500) = -4.05$, $p < .001$.

Measures

Sexual Aggression Victimization and Perpetration.

To assess the prevalence of sexual aggression victimization and perpetration among both women and men, we used the Sexual Aggression and Victimization Scale (SAV-S; Krahé & Berger, 2013) which was originally developed in Germany and subsequently used and validated in cross-cultural research conducted in 10 European countries (Krahé et al., 2015; Krahé et al., 2016). Building on Koss et al.’s (2007) Sexual Experience Survey-Short Form (SES-SF) in terms of the included coercive strategies and sexual acts, the SAV-S additionally breaks down victimization and perpetration reports by the relationship between victim and perpetrator, which yields a more fine-grained picture of the relationship constellations in which sexual aggression is particularly prevalent.

The SAV-S contains parallel items referring to sexual aggression victimization (victim perspective) and perpetration (aggressor perspective). It differentiates between three coercive strategies: (1) the threat or use of physical force, (2) the exploitation of the inability of the victim to resist (e.g., due to alcohol or drug consumption), and (3) the use of verbal pressure (e.g., calling the victim a failure). For each coercive strategy, three different victim-perpetrator relationships are presented (current or former partner, acquaintance, and stranger). Within each relationship
constellation, four sexual activities are specified: sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual acts (e.g., oral sex). A demo version of the SAV-S is available at http://www.w-lab.de/sav-s.html. Altogether, participants received three coercive strategies × three victim perpetrator constellations × four sexual acts, which results in 36 specific items for the sexual aggression victimization and perpetration parts, respectively. For each item, participants were asked if they had Never (0), Once (1), or More than once (>1) experienced or committed the particular sexual act in two time periods: (a) in the past 12 months and (b) since the age of 15 (the age of consent) up to 12 months ago.

For the purposes of the present study, reports were combined across the two time periods to yield a victimization and perpetration score covering the time period since the age of 15. Setting the lower age limit at the age of consent is necessary to separate sexual aggression, defined as nonconsensual sex, from child sexual abuse, where consent is not an issue (Koss et al., 2007). Ethical considerations led to the decision to impose a fixed order, whereby the victimization part was always presented first to enable participants to register any victimization experiences before being prompted to report perpetration behavior. The coercive strategies were also presented in a fixed order. First, the items referring to the use or threat of physical force were presented, followed by the exploitation of the other person’s inability to resist, followed by verbal pressure. This was done to ensure that reports of using or experiencing verbal pressure included only incidents in which verbal pressure was not followed by physical force or exploitation of the victim’s incapacitated state, because otherwise the same experience would have been reported more than once. The Turkish version of the SAV-S was created by a careful translation of the German original into Turkish and a back-translation from Turkish into German by fluent speakers of Turkish and German, respectively, as recommended by Brislin (1970). All other measures were translated in the same way.

Situational Drinking Behavior. If participants reported at least one incident of sexual aggression victimization or perpetration for a particular relationship constellation, they were prompted to indicate if they and/or the other person involved had consumed alcohol in the situation. The following response options were provided: Alcohol was consumed by me, By the other person, By both of us, and Not at all.

Sexual Orientation and Experience. Three options were provided to assess participants’ sexual orientation: heterosexual, homosexual, and bisexual. In addition, participants were asked if they had ever engaged in sexual activities other than sexual intercourse (sexual touch, kissing) and whether they had ever had sexual intercourse. Those who reported coital experience were asked to indicate (a) their age at first sexual intercourse, (b) the number of sexual partners in a steady relationship, and (c) the number of partners in a casual relationship.

Demographic and Relationship Information. Participants were asked to provide information about their sex (male or female), age, nationality, religion (Islam, Catholicism, Protestantism, other Christian Church, other religion, no religion), and area of study. They were further requested to indicate if they had ever been in a steady relationship and if they were in a relationship at the time of the survey (yes/no).

Procedure

The study protocol and all instruments were approved by the ethics committees (institutional review boards) of the authors’ universities. The data were collected online during the spring semester of 2015. Students were invited in classes and through social media university groups, and flyers with the web link were distributed on campus. The survey was programmed such that participants could access the items only after giving active consent. Because participants were asked about experiences of sexual aggression victimization and perpetration that might elicit painful memories, we provided a list with contact details of local counseling agencies specializing in sexual violence. The list could be accessed via a “help button” on all pages that presented the sexual aggression victimization and perpetration items. This procedure followed good practice recommendations for sexual violence research (Krahé & Vanwesenbeeck, 2016). In return for participation, all respondents were invited to take part in a raffle to win a voucher for an online store that sells music and books.

RESULTS

Total Prevalence of Sexual Aggression Victimization and Perpetration

To create an overall score of sexual aggression victimization and perpetration since the age of 15, we aggregated responses across the two time periods. Participants who answered Never to all victimization items were categorized as nonvictims (scored 0); those who endorsed at least one of the victimization items were categorized as victims (scored 1). Perpetration scores were defined in the same way.
Prevalence of Sexual Aggression Victimization

The overall prevalence rate of sexual aggression victimization across all coercive strategies, relationship constellations, and sexual acts was 77.6% for women and 65.5% for men. The gender difference was significant, $\chi^2 (1, N = 1,365) = 23.26$, $p < .001$, confirming our prediction. A breakdown of victimization experiences by coercive strategy and victim-perpetrator constellation is presented in Table 1.

With regard to the coercive strategies used by the perpetrator, the threat or use of physical force was the most commonly reported strategy, indicated by 73.8% of women and 62.1% of men, followed by the exploitation of the victim’s inability to resist, with 40.5% and 31.9%, respectively, and the use of verbal pressure, with 26.9% and 21.4%. Gender differences were tested with a corrected alpha level of $p < .017 (.05 / 3)$ to account for multiple tests for the three coercive strategies. Significantly more women than men reported that they had been victimized through the threat or use of physical force, $\chi^2 (1, N = 1,358) = 20.22$, $p < .001$, or the exploitation of their inability to resist, $\chi^2 (1, N = 1,331) = 9.72$, $p < .01$. The gender difference for victimization through the use of verbal pressure did not meet the corrected significance level, $\chi^2 (1, N = 1,326) = 4.99$, $p = .025$.

Regarding the relationship constellation between victim and perpetrator, most incidents of victimization were experienced from a current or former partner, with a rate of 61.4% for women and 55.4% for men. The second most frequent category was victimization by a friend or acquaintance, reported by 45.2% of women and 39.6% of men. Victimization by a stranger, while less common, was reported by 39.5% of women and 31.1% of men. These findings are consistent with our expectation that more victimization incidents would be reported in which the perpetrators had been known to the victims as current or former partners or as friends/acquaintances than incidents in which the parties had been strangers. Using a corrected alpha level of $p < .05 / 3 = .017$ to account for the separate tests for the three relationship constellations, we found that significantly more women than men reported victimization by strangers, $\chi^2 (1, N = 1,364) = 9.64$, $p < .01$. No gender differences were found for sexual victimization by someone known to the victim as a current or former partner, $\chi^2 (1, N = 1,365) = 4.59$, $p = .032$, or as a friend or acquaintance, $\chi^2 (1, N = 1,362) = 3.94$, $p = .047$. Regarding gender differences in the prevalence rates broken down by coercive strategy and relationship constellation, more women than men reported sexual victimization by a stranger through the use or threat of physical force, $\chi^2 (1, N = 1,352) = 10.42$, $p < .01$. All other differences were nonsignificant. The detailed findings for the four sexual acts grouped under each combination of coercive strategy and victim-perpetrator relationship are presented in Appendix 1. The prevalence rates for the two time periods (since the age of 15 up to 12 months ago; past 12 months) were highly similar. The prevalence rates for each time period are presented in Appendix 2: victimization since the age of 15 up to 12 months ago; and Appendix 3: victimization in the past 12 months.

For a comparison with previous studies on the prevalence of sexual aggression victimization using the Sexual Experiences Survey, we classified each participant’s most severe form of sexual victimization according to the scoring proposed by Koss et al. (2008). The authors differentiated between five levels of severity:

1. **Sexual contact** refers to sexual touch without penetration by verbal pressure, exploitation of the victim’s inability to resist, and the use or threat of physical force, but it does not include attempted coercion, coercion, attempted rape, and rape.
2. **Attempted coercion** describes the attempt of oral, vaginal, or anal penetration through the use of verbal pressure, but it does not include coercion, attempted rape, and rape.
3. **Coercion** refers to oral, vaginal, or anal penetration using verbal pressure, but it does not include attempted rape or rape.
4. **Attempted rape** describes attempted oral, vaginal, or anal penetration through exploitation of the victim’s inability to resist or the use or threat of physical force, but not rape.
5. **Rape** refers to oral, vaginal, or anal penetration by exploiting the victim’s inability to resist or the use or threat of physical force. The definition of rape corresponds to the Turkish legal definition.

Table 1. Prevalence of Sexual Aggression Victimization in Percent, Broken Down by Sex, Coercive Strategy, and Relationship Constellation Since the Age of 15, $N = 1,365$ ($n_f = 878$, $n_m = 487$)

| Victim–Perpetrator Relationship | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Total Relationship (at least one ≥1 per row) |
|--------------------------------|------------------------------|-----------------------------------|----------------|---------------------------------------------|
|                                | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| (Ex-)partner                   | 57.7  | 50.6 | 24.8  | 23.2 | 20.1  | 17.4 | 61.4  | 55.4 |        |     |
| Friend/acquaintance            | 41.2  | 36.7 | 23.6  | 19.4 | 10.3  | 12.2 | 45.2  | 39.6 |        |     |
| Stranger                       | 36.2**| 27.6**| 18.9  | 15.3 | 8.5   | 8.2  | 39.5**| 31.1**|        |     |
| Total coercive strategy (at least one ≥1 per column) | 73.8***| 62.1***| 40.5**| 31.9**| 26.9 | 21.4 | 77.6***| 65.5***|        |     |

Note. Gender difference: **$p < .01$; ***$p < .001$. Multiple responses were possible.
Table 2. Prevalence of Sexual Aggression Victimization Since the Age of 15 Based on Scoring Proposed by Koss et al. (2008)

| Sexual Victimization in % | Women       | Men        |
|--------------------------|-------------|------------|
| No victimization         | 22.4***     | 34.5*****  |
| Sexual contact           | 27.0****    | 14.0*****  |
| Attempted coercion       | 0.5         | 0.4        |
| Coercion                 | 1.0         | 0.6        |
| Attempted rape           | 10.0        | 7.0        |
| Rape                     | 39.1        | 43.5       |

Note. Gender difference: ***p < .001.

Table 2 presents the prevalence rates of sexual aggression victimization for women and men according to this classification. A significant gender difference was found for the overall distribution, χ²(5, N = 1,365) = 46.23, p < .001. With respect to the different categories, significantly more men than women reported no victimization, but significantly more women (22.4%) than men (14.0%) reported sexual contact victimization.

In addition, we investigated the role of alcohol consumption in incidents of sexual victimization. Overall, about two-thirds of victimized women (67.7%) and men (68.6%) indicated that alcohol had been consumed by themselves, the perpetrator, or both in at least one of the incidents reported, and the gender difference was not significant. As expected, the use of alcohol was most common in incidents of victimization by a stranger, with 72.9% of women and 80.1% of men reporting alcohol consumption by themselves, the perpetrator, or both. For victimization by a friend or acquaintance, the rates were 58.0% for women and 65.8% for men, and for victimization by a current or former partner, the rates were 55.7% for women and 62.1% for men. The gender differences within each relationship constellation were nonsignificant. Further analyses considering participants’ religion revealed that the proportion of victimization incidents in which alcohol was drunk by the victim, the perpetrator, or both was higher among non-Muslims 7 (78.0%) than among Muslims (61.4%), χ²(1, N = 987) = 29.40, p < .001. However, alcohol was still involved in more than half of the incidents reported by Muslim victims. These findings support our hypothesis that alcohol use would be a common feature of situations in which sexual victimization occurred, particularly in assaults committed by strangers and also to a considerable degree among Muslim participants, whose religion prohibits the consumption of alcohol (Çelen, 2015).

Prevalence of Sexual Aggression Perpetration

Across all sexual acts, strategies, and relationship constellations, 28.9% of men and 14.2% of women reported the perpetration of at least one act of sexual aggression. As hypothesized, the gender difference was significant, χ²(1, N = 1,339) = 42.19, p < .001. The detailed findings are presented in Table 3.

The most common coercive strategy was the use or threat of physical force, which was reported by 21.7% of men and 10.0% of women. Moreover, 15% of men and 6.2% of women indicated that they had exploited the other person’s inability to resist, and 8.6% of men and 3.7% of women reported the use of verbal pressure. For each coercive strategy, the prevalence rate was higher for men than for women, χ²(1, N = 1,328) = 34.08, p < .001 for physical force, χ²(1, N = 1,317) = 27.06, p < .001 for exploitation of the inability to resist, and χ²(1, N = 1,315) = 14.33, p < .001 for verbal pressure.

With regard to relationship constellations, 22.8% of men and 11.2% of women indicated sexual aggression perpetration toward a current or former partner, 13.1% of men and 4.4% of women toward a friend or acquaintance, and 7.2% of men and 2.4% of women toward a stranger. All gender differences within each coercive strategy, which were tested with a corrected alpha level of p < .05/3, were significant, χ²(1, N = 1,338) = 31.52, p < .001 for (ex-)partners, χ²(1, N = 1,336) = 33.43, p < .001 for friends or acquaintances, and χ²(1, N = 1,337) = 17.54, p < .001 for strangers. An item-by-item breakdown of perpetration rates by sexual acts within each combination of coercive strategy and relationship to the victim is presented in Appendix 4. Paralleling the victimization data, the rates for the two time periods were highly similar, as shown in Appendix 5 (perpetration since the age of 15 up to 12 months ago) and Appendix 6 (perpetration in the past 12 months).

Table 4 presents the prevalence rates based on participants’ most severe forms of sexual aggression perpetration since the age of 15 according to the classification proposed by Koss et al. (2008). The gender difference of the overall distribution was significant, χ²(5, N = 1,339) = 45.04, p < .001. Regarding the different categories, significantly more women than men reported no incident of sexual aggression perpetration, while significantly more men than women reported sexual contact and rape.

Overall, 53.7% of female and 59.6% of male participants reported that they, the other person, or both had drunk alcohol in at least one of the reported incidents. The gender difference was nonsignificant. Paralleling the findings for victimization, the highest number of perpetration incidents in which alcohol was consumed by one or both of the parties involved occurred between strangers (66.7% of women and 82.4% of men), followed by sexual aggression perpetration toward a friend or acquaintance (45.9% of women and 62.3% of men) and sexual aggression perpetration toward a current or former partner (49.0% of women and 52.8% of men). The rates for men and women did not differ significantly in the three relationship categories. The rate of sexual aggression perpetration incidents involving alcohol was not significantly different between Muslims (56.8%) and non-Muslims (57.6%).

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7 Participants who indicated Islam as their religion were coded as Muslims (1); participants who reported another or no religion were coded as non-Muslims (0).
Table 3. Prevalence of Sexual Aggression Perpetration in Percent, Broken Down by Sex, Coercive Strategy, and Relationship Constellation Since Age 15, $N = 1,339$ ($n_{\text{men}} = 865$, $n_{\text{women}} = 474$)

| Coercive Strategy | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Total Relationship (At Least One $\geq 1$ per Row) |
|-------------------|-----------------------------|-----------------------------------|----------------|----------------------------------|
|                    | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| (Ex-)partner       | 8.1*** | 16.8*** | 4.6*** | 11.1*** | 3.2*** | 7.5*** | 11.2*** | 22.8*** |
| Friend/acquaintance| 3.6*** | 9.8*** | 1.8*** | 6.9*** | 0.6*** | 2.4**  | 4.4*** | 13.1*** |
| Stranger           | 1.5*** | 5.1*** | 0.9*** | 5.2*** | 0.5  | 1.9  | 2.4*** | 7.2***  |
| Total coercive strategy (at least one $\geq 1$ per column) | 10.0*** | 21.7*** | 6.2*** | 15.0*** | 3.7*** | 8.6*** | 14.2*** | 28.9*** |

Note: Gender difference: **$p < .01$; ***$p < .001$. Multiple responses were possible.

Table 4 Prevalence of Sexual Aggression Perpetration Since Age 15 Based on Scoring Proposed by Koss et al. (2008)

| Sexual Aggression Perpetration in % | Women | Men |
|-----------------------------------|-------|-----|
| No perpetration                   | 85.8*** | 71.1*** |
| Sexual contact                    | 7.1*** | 12.4*** |
| Attempted coercion                | 0.2   | 0.2   |
| Coercion                          | 0.7   | 1.1   |
| Attempted rape                    | 1.8   | 3.8   |
| Rape                              | 4.4*** | 11.4*** |

Note: Gender difference: ***$p < .001$.

Relationship of Sexual Aggression Victimization and Perpetration

Consistent with our prediction, the prevalence rates for sexual aggression victimization were considerably higher than the prevalence rates for sexual aggression perpetration in both gender groups (77.6% victimization versus 14.2% perpetration for women, 65.5% versus 28.9% for men, $p < .001$). Because we asked about both sexual aggression victimization and perpetration, we were able to examine the cross-classification of victim and perpetrator status. Of the total sample, 64.0% of women and 41.2% of men were sole victims, i.e., they did not report perpetration behavior. Regarding sexual aggression perpetration, 0.7% of women and 4.0% of men of the total sample were sole perpetrators, i.e., they did not report victimization behavior; 13.5% of women and 24.9% of men reported both victimization and perpetration. Finally, 21.8% of women and 29.8% of men indicated neither victimization nor perpetration.

DISCUSSION

This study sought to contribute to the limited database on the extent to which sexual aggression is a problem among young adults in Turkey. It examined the prevalence rates of experiencing and engaging in sexual aggression since the age of 15 in a large sample of female and male college students. In addition to providing overall rates of victimization and perpetration, specific forms of sexual aggression, broken down by coercive strategies, victim-perpetrator relationships, and sexual acts, were investigated.

In terms of sexual experience background, we found that the rate of coital experience was 64.9% for men and 53.3% for women. Past studies with Turkish college students established similar rates for men (e.g., Aras, Orcin, Ozan, & Semin, 2007; Boratav & Çavdar, 2012) but lower rates for women (e.g., Aras et al., 2007; Golbasi, Erenel, & Tugut, 2012). The higher number of sexually experienced women in the present sample may be related to a liberalization of sexual behaviors and attitudes among Turkish college students in recent years (see Gelbal et al., 2008). The average age at first sexual intercourse in the present sample was 18.3 years for men and 19.1 years for women, which was similar to past findings from Turkey (Aras et al., 2007; Ege, Akin, Kültür Can, & Ariöz, 2011; Eşisizoğlu, Yasan, Yıldırım, Gurgen, & Ozkan, 2011). These findings show that the onset of coital activity in Turkey is later than in Western countries (Durex, 2005; Ompad et al., 2006; Reissing, Andruff, & Wentland, 2012).

Regarding the prevalence of sexual aggression victimization, the overall rates of 77.6% of women and 65.5% of men are high compared to other studies from Turkey as well as other countries (Kabasakal & Girli, 2012; for a review, see Krahé et al., 2014), but they are not unique. For example, in the Turkish study by Kayı et al. (2000), 84% of female college students reported some form of verbal, visual, or tactile sexual victimization. There are few studies on male sexual victimization in Turkey to be used as a reference. For instance, Kabasakal and Girli (2012) found a lower rate of male sexual victimization (27.9%), but they assessed forced sexual contacts only in a dating context. Cross-cultural studies by Krahé et al. (2015), who used the same instrument for victimization since the age of consent (SAV-S, Krahé & Berger, 2013), and Chan et al. (2008), who assessed sexual coercion in the past 12 months using the revised Conflict Tactics Scale (CTS2, Straus, Hamby, Boney-McCoy, & Sugarman, 1996), reported similarly high male victimization estimates in neighboring Greece (55.8% and 59.5%, respectively). In a study with high school students in New Zealand, 76.9% of girls and 67.4%
of boys reported sexual victimization, defined as nonconsensual sexual activities, ranging from kissing to sexual intercourse (Jackson, Cram, & Seymour, 2000).

With respect to the perpetration of sexual aggression, 14.2% of women and 28.9% of men in our study reported that they had made or tried to make another person engage in nonconsensual sexual activities on at least one occasion. Only one previous study from Turkey investigated perpetration. This small-scale study by Aslan et al. (2008) included only women as perpetrators and found a prevalence rate of 11.1% for forced sexual intercourse in a dating relationship, which is similar to the overall rate of female perpetration found in our study.

Several cultural factors may have contributed to the high rate of sexual aggression victimization and perpetration in our college student sample. One cultural variable is the role of sexuality in Turkish society. Sexuality is a taboo topic (Aras et al., 2007), and there is little or no formal sexual education in schools (Bikmaz & Güler, 2007). Accordingly, there is no institutionalized or societal discourse about consent and respect for the right to sexual self-determination. For instance, in a study by Adana et al. (2011) 25% of the male college student sample agreed with the statement that a woman should have sexual intercourse with her husband even if she does not want to. In addition, traditional gender roles, which are discussed as predictors of sexual aggression perpetration (Shen, Chiu, & Gao, 2013), are widespread in Turkish society, also among college students (Adana et al., 2011; Yüksel-Kaptanoğlu et al., 2012). These traditional gender roles include a double standard for male and female sexuality. Women are traditionally expected to protect their virginity until marriage and engage in sexual activities only in the context of reproduction (Borataş & Çavdar, 2012). This means there is social control over women’s bodies and sexuality (Gursoy, McCool, Sahinoglu, & Yavuz Genc, 2016), while there are no restrictions for men (Cok, Gray, & Ersever, 2001). Although recent years have seen a liberalization of sexual lifestyle (Gelbal et al., 2008) and attitudes, in particular among young educated women (Öngen, 2006), and globalization means unrestricted access to portrayals of gender relations and sexual behavior patterns among young people in other parts of the world, conservative social norms about sexuality remain influential (Yalçın, Arıcıoğlu, & Malkoç, 2012). Young people in Turkey are therefore exposed to conflicting influences and messages about sexual relations between men and women, which could contribute to the blurring of boundaries between consensual sex and sexual aggression. Moreover, as gender inequality in a society has been identified as a factor related to sexual aggression (Martin, Vieraitis, & Britto, 2006), further cross-cultural research is needed to examine whether the level of gender inequality in Turkish society is related to the prevalence rates of sexual aggression.

Another cultural context factor concerns alcohol use. The rates of alcohol-related incidents of sexual aggression victimization and perpetration in the present study were similar to findings from Western European countries (Krahé & Berger, 2013; Tomaszewska & Krahé, 2015). Within the victimization reports, the proportion of alcohol-related incidents was higher among non-Muslims than among Muslims, but the proportion of alcohol-related perpetration reports did not differ between the two groups. It is worth noting that in the Muslim group more than half of the victimization and perpetration reports referred to situations that involved the consumption of alcohol. This is a high rate given the prohibition of alcohol consumption in Islam (Çelen, 2015) and has to be interpreted against the fact that Turkey is a secular country despite its predominantly Muslim population (Pew Research Center, 2011). A large part of the younger population does not adhere to religious principles, and alcohol consumption is more common than in other Islamic countries (Özgür İlhan, Yıldırım, Demirbaş, & Doğan, 2008). Nonetheless, drinking is less socially accepted than in Western countries and increasingly restricted by current policy (Evered & Evered, 2016). Accordingly, alcohol consumption among college students is less common than in North America or Western Europe (Bakar, Gündogar, Ozisik Karaman, & Maral, 2013; Özgür İlhan et al., 2008). It is less normative and may be more likely to be associated with negative outcomes. Alcohol use may be interpreted as a signal of a permissive sexual lifestyle, lowering the threshold for using sexual coercion and ignoring expressed non-consent. Consistent with traditional gender roles, women’s alcohol use in particular may provide a justification for men’s sexually aggressive behavior. This explanation is consistent with the finding that the highest rate of alcohol use was reported for incidents involving strangers. This finding could be critical for prevention programs because alcohol may affect the risk of perpetrating sexual aggression and vulnerability to sexual victimization in different ways, including the misinterpretation of social cues and behaviors due to the inhibition of higher-order cognitive functioning (Abbey et al., 2004). However, these explanations are tentative and require further research, including cultural indicators, such as gender roles and alcohol consumption, to understand how social norms and changes impact the way young Turkish adults conduct their sexual relationships.

In line with previous international research, we found substantially higher victimization than perpetration reports (for a review, see Kolivas & Gross, 2007; Krahé & Berger, 2013). Because we assessed sexual aggression victimization and perpetration in both men and women, our finding that the discrepancy occurred in both gender groups indicates that it is more a function of perspective (perpetrator versus victim) than of gender (female victims versus male perpetrators). The discrepancy is likely to reflect social desirability concerns (perpetration being more socially sanctioned) and the fact that perpetrators may have multiple victims, but it does not seem to be a question of differences between men and women.

In terms of gender differences in the prevalence rates of sexual aggression victimization, we primarily found gender differences in the overall and summarizing categories, with more women than men experiencing the use or threat of
physical force and exploitation of the inability to resist, and more women than men were victimized by a stranger. Looking more specifically at the prevalence rates broken down by coercive strategy and relationship constellation, we found that more women than men were sexually victimized by a stranger through the use or threat of physical force. The absence of significant gender differences in several of the comparisons is not uncommon as other studies also did not find many gender differences in sexual victimization (e.g., Hines, Armstrong, Reed, & Cameron, 2012; Tomaszewska & Krahé, 2015). This does not imply that the effects of sexual victimization are the same for both gender groups. Research on gender differences in the adverse psychological consequences of sexual victimization is notably limited and has yielded inconclusive results. Some studies found more negative effects of sexual victimization on female victims; others found male victims to be more adversely affected; yet others did not find gender differences (for a review, see Peterson et al., 2011). More research is needed to understand how sexual aggression victimization is experienced by female and male victims and whether the impact of victimization differs for men and women. With respect to gender differences for perpetrating sexual aggression, with one exception significantly more men than women indicated perpetration, confirming past international evidence (Krahé et al., 2015; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003).

For both the sexual aggression victimization and perpetration rates, we found a similar pattern regarding the use of the different coercive strategies: The use or threat of physical force was the most commonly reported strategy, followed by the exploitation of the victim’s inability to resist. Verbal pressure was less commonly reported. Internationally, there is no consensus about the prevalence and ranking of coercive strategies, and there is no information from Turkey comparing different coercive strategies. However, studies that used the same instrument (SAV-S, Krahé & Berger, 2013) found a similar pattern in some countries (for sexual victimization, Tomaszewska & Krahé, 2015) but not in others (Krahé & Berger, 2013; Krahé et al., 2015). The relative prominence of different coercive strategies requires further investigation including cultural variables. Further, the present data showed that sexual aggression was more prevalent among persons known to one another than among strangers, consistent with past Turkish and international research (e.g., Black et al., 2011; Yiğitaş, 2007).

**Strengths and Limitations**

We believe our study has several strengths. First, we were able to recruit a large student sample from four universities. Second, male and female participants provided information about both sexual aggression victimization and perpetration, yielding evidence on the relationship of being a victim and/or a perpetrator. Third, by addressing different coercive strategies, victim-perpetrator relationship constellations, and sexual activities, we obtained a first systematic description of characteristic patterns of sexual aggression among college students in Turkey.

At the same time, several limitations must be acknowledged. First, as we had a convenience sample, the findings may not be generalized to the entire student body across Turkey. In addition, because college students are better educated, more liberal than the average population, and may also differ in lifestyle, the generalizability of the findings to nonstudent populations of young adults needs to be established in future research. Due to a lack of comprehensive representative studies on sexual aggression, which could have been used as reference, future research should aim to study representative samples (see, however, Straus, 2009, on the relevance of data based on nonrepresentative samples). Second, the number of gay, lesbian, and bisexual (GLB) participants was too small to draw reliable conclusions. Future investigations should address these groups in Turkey, but also internationally, because evidence for the GLB community is limited, although it constitutes a vulnerable group (for a review, see Rothman, Exner, & Baughman, 2011). Third, our findings indicated that alcohol was involved in a great proportion of incidents of sexual aggression, but we did not assess the level of intoxication. More specific questions would be needed to try and determine a threshold separating innocuous and harmful levels of alcohol consumption in the context of sexual interactions.

In conclusion, the present study provided a first extensive data set on sexual aggression victimization and perpetration among both female and male college students in Turkey, and the findings are largely consistent with past research. At the same time, they extend the previous international as well as limited national evidence from Turkey, which was primarily based on female reports about sexual victimization by intimate partners. The present study suggests that sexual aggression has a high prevalence among college students in Turkey, calling for greater research and policy attention that includes the development and evaluation of prevention programs to tackle this serious societal problem.

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APPENDIX 1

Sexual Aggression Victimization in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act for Both Time Periods Combined (= Since the Age of 15), N = 1,365 (n♀ = 878, n♂ = 487)

| Coercive Strategy                  | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (at Least One ≥1 per Row) |
|------------------------------------|-----------------------------|------------------------------------|----------------|----------------------------------|
|                                    | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| (Ex-)partner                       |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 52.0  | 48.3 | 23.3  | 22.8 | 18.5  | 16.1 | 56.5  | 53.8 |       |     |
| Attempted sex. inter.             | 34.1  | 35.3 | 14.7  | 16.5 | 16.0  | 14.0 | 38.5  | 40.2 |       |     |
| Completed sex. inter.             | 18.2  | 26.8 | 7.3   | 12.5 | 6.8   | 8.4  | 21.4  | 30.0 |       |     |
| Other (e.g., oral sex)            | 30.2  | 32.2 | 9.9   | 12.0 | 9.0   | 9.2  | 33.4  | 35.7 |       |     |
| Total (ex-)partner                | 57.7  | 50.6 | 24.8  | 23.2 | 20.1  | 17.4 | 61.4  | 55.4 |       |     |
| Friend/acquaintance               |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 39.8  | 35.5 | 23.2  | 19.1 | 10.0  | 12.0 | 43.9  | 38.4 |       |     |
| Attempted sex. inter.             | 15.1  | 20.3 | 9.3   | 12.6 | 3.9   | 7.5  | 18.2  | 23.5 |       |     |
| Completed sex. inter.             | 4.8   | 13.0 | 3.2   | 8.1  | 0.9   | 4.5  | 5.8   | 15.5 |       |     |
| Other (e.g., oral sex)            | 8.6   | 14.6 | 4.2   | 8.3  | 1.9   | 4.7  | 10.4  | 16.7 |       |     |
| Total friend/acquaintance         | 41.2  | 36.7 | 23.6  | 19.4 | 10.3  | 12.2 | 45.2  | 39.6 |       |     |
| Stranger                           |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 36.0  | 26.7 | 18.8  | 15.1 | 8.3   | 7.9  | 39.2  | 30.5 |       |     |
| Attempted sex. inter.             | 7.8   | 14.4 | 5.3   | 10.2 | 2.2   | 6.0  | 9.7   | 18.5 |       |     |
| Completed sex. inter.             | 2.8   | 10.5 | 1.6   | 7.6  | 0.7   | 3.2  | 3.2   | 13.0 |       |     |
| Other (e.g., oral sex)            | 3.4   | 11.5 | 2.5   | 7.9  | 1.3   | 3.4  | 4.7   | 14.4 |       |     |
| Total stranger                     | 36.2  | 27.6 | 18.9  | 15.3 | 8.5   | 8.2  | 39.5  | 31.1 |       |     |
| Total coercive strategy           | 73.8  | 62.1 | 40.5  | 31.9 | 26.9  | 21.4 | 77.6  | 65.5 |       |     |

Note. Gender difference: **p < .01; ***p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.

APPENDIX 2

Sexual Aggression Victimization in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act Since the Age of 15 up to 12 Months Ago, N = 1,345 (n♀ = 864, n♂ = 481)

| Coercive Strategy                  | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (at Least One ≥1 per Row) |
|------------------------------------|-----------------------------|------------------------------------|----------------|----------------------------------|
|                                    | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| (Ex-)partner                       |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 42.1  | 39.4 | 16.3  | 17.7 | 13.9  | 11.6 | 45.1  | 42.6 |       |     |
| Attempted sex. inter.             | 25.8  | 27.6 | 9.8   | 12.8 | 10.3  | 8.8  | 28.2  | 30.9 |       |     |
| Completed sex. inter.             | 13.6  | 20.9 | 4.6   | 9.3  | 5.5   | 6.2  | 15.6  | 23.3 |       |     |
| Other (e.g., oral sex)            | 22.5  | 24.2 | 6.8   | 8.9  | 6.5   | 7.8  | 24.4  | 27.0 |       |     |
| Total (ex-)partner                | 46.7  | 40.9 | 17.0  | 18.1 | 15.3  | 12.7 | 49.0  | 44.0 |       |     |
| Friend/acquaintance               |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 31.7  | 28.1 | 17.6  | 14.0 | 8.6   | 7.9  | 35.5  | 30.7 |       |     |
| Attempted sex. inter.             | 12.1  | 16.1 | 7.0   | 9.0  | 2.9   | 5.1  | 14.6  | 18.3 |       |     |
| Completed sex. inter.             | 3.3   | 11.6 | 2.6   | 5.7  | 0.9   | 3.1  | 4.6   | 13.0 |       |     |
| Other (e.g., oral sex)            | 6.9   | 12.6 | 2.9   | 5.9  | 1.8   | 3.1  | 8.4   | 13.9 |       |     |
| Total friend/acquaintance         | 32.7  | 29.4 | 17.8  | 14.4 | 8.6   | 8.1  | 36.7  | 31.7 |       |     |
| Stranger                           |       |     |       |     |       |     |       |     |       |     |
| Touching                           | 25.3  | 18.3 | 13.9  | 11.1 | 6.1   | 3.8  | 28.8  | 22.4 |       |     |
| Attempted sex. inter.             | 6.0   | 8.8  | 3.5   | 7.0  | 1.5   | 2.9  | 7.0   | 12.4 |       |     |
| Completed sex. inter.             | 1.8   | 7.2  | 0.7   | 5.3  | 0.6   | 1.8  | 1.9   | 9.7  |       |     |
| Other (e.g., oral sex)            | 2.3   | 7.5  | 1.3   | 5.1  | 1.0   | 1.8  | 2.8   | 10.1 |       |     |
| Total stranger                     | 25.5  | 18.7 | 14.0  | 11.1 | 6.2   | 4.4  | 29.3  | 22.6 |       |     |
| Total coercive strategy           | 61.3  | 51.7 | 29.7  | 25.1 | 21.0  | 15.1*| 63.8  | 54.7 |       |     |

Note. Gender difference: ** p < .01; *** p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.
### APPENDIX 3

Sexual Aggression Victimization in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act in the Past 12 Months, $N = 1,316$ ($n_f = 844$, $n_m = 472$)

| Victim—Perpetrator Relationship | Sexual Activity | Coercive Strategy | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (at Least One $\geq$ per Row) |
|---------------------------------|-----------------|-------------------|-----------------------------|-----------------------------------|----------------|-------------------------------------|
| **Women**                       | **Men**         | **Women**         | **Men**                     | **Women**                         | **Men**        | **Women**                           | **Men**                               |
| (Ex-)partner Touching           | 37.9            | 38.3              | 17.0                        | 16.7                              | 10.1           | 11.5                                | 41.1                                  | 43.6                                 |
| Attempted sex. inter.           | 23.4            | 26.0              | 10.0                        | 11.8                              | 6.4            | 8.4                                 | 26.6                                  | 30.9                                 |
| Completed sex. inter.           | 12.9***          | 20.6***           | 4.5**                       | 9.4**                             | 2.6**          | 6.1**                               | 14.6***                               | 23.7***                              |
| Other (e.g., oral sex)          | 22.4            | 24.9              | 6.8                         | 8.7                               | 4.7            | 6.1                                 | 24.2                                  | 27.7                                 |
| **Total (ex-)partner**          | 42.6            | 40.5              | 18.4                        | 16.9                              | 10.6           | 12.4                                | 45.1                                  | 44.8                                 |
| Friend/acquaintance Touching    | 22.8            | 26.7              | 15.0                        | 14.6                              | 5.0**          | 9.5**                               | 25.6                                  | 30.1                                 |
| Attempted sex. inter.           | 8.0***           | 16.2***           | 5.3**                       | 9.6**                             | 2.3**          | 5.5**                               | 9.8***                                | 19.1***                               |
| Completed sex. inter.           | 3.3***           | 9.8***            | 1.5**                       | 6.8**                             | 0.4**          | 3.4**                               | 3.4***                                | 12.4***                               |
| Other (e.g., oral sex)          | 4.2**           | 11.2**            | 2.3**                       | 7.3**                             | 0.8**          | 3.6**                               | 4.9***                                | 13.6***                               |
| **Total friend/acquaintance**   | 23.3            | 27.7              | 15.2                        | 14.5                              | 5.4**          | 9.8**                               | 26.4                                  | 31.1                                 |
| Stranger Touching               | 24.9            | 23.0              | 12.9                        | 13.4                              | 5.8            | 7.3                                 | 26.8                                  | 26.1                                 |
| Attempted sex. inter.           | 4.6***           | 11.7***           | 3.0**                       | 8.2**                             | 1.6**          | 5.7**                               | 6.1***                                | 14.8***                               |
| Completed sex. inter.           | 2.0***           | 8.4***            | 1.1**                       | 5.9**                             | 0.3**          | 3.4**                               | 2.3**                                 | 10.1***                               |
| Other (e.g., oral sex)          | 2.1***           | 9.3***            | 1.5**                       | 6.4**                             | 0.8**          | 3.4**                               | 2.0**                                 | 11.6***                               |
| **Total stranger**              | 25.0            | 23.8              | 12.9                        | 14.1                              | 5.7            | 7.5                                 | 26.7                                  | 27.1                                 |
| **Total coercive strategy**     | 56.9            | 52.5              | 30.0                        | 25.7                              | 15.1           | 15.9                                | 59.2                                  | 55.5                                 |

Note. Gender difference: **p < .01; ***p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.

### APPENDIX 4

Sexual Aggression Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act for Both Time Periods Combined (= Since the Age of 15), $N = 1,339$ ($n_f = 865$, $n_m = 474$)

| Victim—Perpetrator Relationship | Sexual Activity | Coercive Strategy | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (at Least One $\geq$ per Row) |
|---------------------------------|-----------------|-------------------|-----------------------------|-----------------------------------|----------------|-------------------------------------|
| **Women**                       | **Men**         | **Women**         | **Men**                     | **Women**                         | **Men**        | **Women**                           | **Men**                               |
| (Ex-)partner Touching           | 7.5***           | 14.9***           | 4.4**                       | 10.7***                           | 2.5***         | 6.9***                              | 10.3***                               | 20.5***                               |
| Attempted sex. inter.           | 3.2***           | 8.5***            | 1.9**                       | 6.0***                            | 1.5***         | 4.9***                              | 5.0***                                | 11.6***                               |
| Completed sex. inter.           | 1.4***           | 5.3***            | 0.9**                       | 3.9***                            | 0.7**          | 3.9***                              | 2.5***                                | 7.8***                                |
| Other (e.g., oral sex)          | 1.5***           | 6.4***            | 1.2**                       | 3.9**                             | 0.7**          | 4.3**                               | 2.7***                                | 9.2***                                |
| **Total (ex-)partner**          | 8.1***           | 16.8***           | 4.6**                       | 11.1***                           | 3.2**          | 7.5**                               | 11.2***                               | 22.8***                               |
| Friend/acquaintance Touching    | 2.8***           | 9.4***            | 1.8**                       | 6.9**                             | 0.6            | 2.2                                 | 4.3***                                | 12.7***                               |
| Attempted sex. inter.           | 0.8***           | 3.6***            | 0.6**                       | 3.7**                             | 0.2**          | 1.5**                               | 1.2***                                | 5.1***                                |
| Completed sex. inter.           | 0.4              | 1.7               | 0.4**                       | 2.4**                             | 0.1**          | 1.3**                               | 0.7**                                 | 2.7**                                 |
| Other (e.g., oral sex)          | 0.5**            | 2.1**             | 0.4**                       | 2.8**                             | 0.1**          | 1.5**                               | 0.8***                                | 4.0***                                |
| **Total friend/acquaintance**   | 3.0***           | 9.8***            | 1.8**                       | 6.9**                             | 0.6**          | 2.4**                               | 4.4**                                 | 13.1***                               |
| Stranger Touching               | 1.5***           | 5.1***            | 0.9**                       | 4.5**                             | 0.2**          | 1.7**                               | 2.2***                                | 7.0***                                |
| Attempted sex. inter.           | 0.1***           | 3.0***            | 0.2**                       | 2.8**                             | 0.2**          | 1.5**                               | 0.6**                                 | 4.2***                                |
| Completed sex. inter.           | 0.1**            | 1.5**             | 0.2**                       | 2.2**                             | 0.5            | 1.3                                 | 0.8**                                 | 3.0**                                 |
| Other (e.g., oral sex)          | 0.1***           | 2.4***            | 0.2**                       | 3.0**                             | 0.4            | 1.5                                 | 0.7**                                 | 3.8***                                |
| **Total stranger**              | 1.5***           | 5.1***            | 0.9**                       | 5.2**                             | 0.5            | 1.9                                 | 2.4***                                | 7.2***                                |
| **Total coercive strategy**     | 10.0***          | 21.7***           | 6.2**                       | 15.0***                           | 3.7**          | 8.6**                               | 14.2***                               | 28.9***                               |

Note. Gender difference: **p < .01; ***p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.
### APPENDIX 5

**Sexual Aggression Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act Since the Age of 15 up to 12 Months ago, N = 1,318 (n_f = 852, n_m = 466)**

| Coercive Strategy | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (at Least One ≥1 per Row) |
|-------------------|-------------------------------|-------------------------------------|----------------|----------------------------------|
|                   | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **(Ex-)partner**  |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 4.7***| 10.5***| 2.7***| 7.5***| 1.2***| 5.9***| 6.0***| 15.5***|
| Attempted sex. inter. | 2.0***| 6.7***| 1.2**| 3.7**| 0.6***| 4.0***| 2.8***| 9.7***|
| Completed sex. inter. | 0.7***| 4.4***| 0.6 | 2.2 | 0.5***| 3.1***| 1.4***| 6.7***|
| Other (e.g., oral sex) | 1.3***| 5.0***| 0.8 | 2.0 | 0.4***| 3.3***| 2.2***| 7.1***|
| **Total (ex-)partner** | 4.9***| 12.3***| 2.7***| 7.4***| 1.3***| 6.8***| 6.2***| 17.4***|
| **Friend/acquaintance** |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 1.3***| 7.2***| 0.7***| 5.5***| 0.2**| 1.8**| 1.9***| 10.3***|
| Attempted sex. inter. | 0.5**| 2.2**| 0.4**| 2.4**| 0.1**| 1.3**| 0.6***| 3.0***|
| Completed sex. inter. | 0.1 | 1.1 | 0.1**| 1.6**| 0.1 | 1.1 | 0.2***| 2.4***|
| Other (e.g., oral sex) | 0.4 | 1.3 | 0.1**| 1.6**| 0.1 | 1.1 | 0.5**| 2.6**|
| **Total friend/acquaintance** | 1.6***| 7.6***| 0.7***| 5.7***| 0.2**| 2.0**| 2.0***| 11.0***|
| **Stranger**      |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 0.5***| 3.5***| 0.5***| 3.3***| 0.1**| 1.3**| 0.9***| 5.0***|
| Attempted sex. inter. | 0.0***| 2.2***| 0.1***| 2.4***| 0.1 | 1.1 | 0.2***| 3.4***|
| Completed sex. inter. | 0.0***| 1.5***| 0.1***| 2.0***| 0.1 | 0.9 | 0.2***| 2.8***|
| Other (e.g., oral sex) | 0.0***| 1.5***| 0.1***| 1.8**| 0.1 | 1.1 | 0.2***| 2.6***|
| **Total stranger** | 0.5***| 3.7***| 0.5***| 3.9***| 0.1**| 1.5**| 0.9***| 5.4***|
| **Total coercive strategy** | 6.1***| 16.9***| 3.4***| 10.9***| 1.6***| 7.9***| 8.0***| 22.3***|

**Note.** Gender difference: **p < .01; ***p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.

### APPENDIX 6

**Sexual Aggression Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Relationship Constellation, and Type of Sexual Act in the Past 12 Months, N = 1,279 (n_f = 827, n_m = 452)**

| Coercive Strategy | Use/Threat of Physical Force | Exploitation of Inability to Resist | Verbal Pressure | Overall (At Least One ≥1 per Row) |
|-------------------|-------------------------------|-------------------------------------|----------------|----------------------------------|
|                   | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **(Ex-)partner**  |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 6.1** | 10.9**| 3.5**| 7.9**| 1.8 | 3.6 | 8.4**| 14.6**|
| Attempted sex. inter. | 2.3** | 6.1**| 1.2**| 4.1**| 1.0 | 3.0 | 3.5**| 7.5**|
| Completed sex. inter. | 1.2**| 4.3**| 0.5***| 3.4***| 0.3***| 2.5***| 1.7***| 6.2***|
| Other (e.g., oral sex) | 1.1***| 4.5***| 0.7**| 3.0**| 0.4***| 2.7***| 1.7***| 6.4***|
| **Total (ex-)partner** | 6.9**| 12.3**| 3.7**| 8.4**| 2.4 | 4.1 | 9.4***| 16.2***|
| **Friend/acquaintance** |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 2.2 | 4.1 | 1.4**| 3.9**| 0.5 | 0.9 | 3.4 | 6.2 |
| Attempted sex. inter. | 0.5**| 2.3**| 0.3***| 2.3***| 0.1 | 0.9 | 0.7**| 3.3**|
| Completed sex. inter. | 0.2 | 1.1 | 0.3**| 1.9**| 0.0 | 0.7 | 0.5**| 2.2**|
| Other (e.g., oral sex) | 0.2 | 1.4 | 0.3**| 1.6**| 0.0**| 0.9**| 0.5**| 2.4**|
| **Total friend/acquaintance** | 2.2 | 4.3 | 1.4**| 4.2**| 0.5 | 1.1 | 3.4**| 6.7**|
| **Stranger**      |       |     |       |     |       |     |       |     |       |     |       |     |
| Touching          | 1.4 | 3.2 | 0.8**| 3.2**| 0.3 | 1.4 | 2.0**| 4.9**|
| Attempted sex. inter. | 0.1***| 1.6**| 0.1**| 1.6**| 0.3 | 1.2 | 0.5**| 2.9**|
| Completed sex. inter. | 0.1 | 0.5 | 0.1 | 0.9 | 0.5 | 0.9 | 0.7 | 1.6 |
| Other (e.g., oral sex) | 0.1 | 1.1 | 0.1***| 2.3**| 0.4 | 1.2 | 0.6**| 2.7**|
| **Total stranger** | 1.4 | 3.2 | 0.8**| 3.7***| 0.5 | 1.6 | 2.2**| 4.9**|
| **Total coercive strategy** | 8.2***| 14.7***| 5.0***| 10.9***| 2.9 | 4.8 | 11.5***| 19.9***|

**Note.** Gender difference: **p < .01; ***p < .001. Sex. inter. = Sexual intercourse. Multiple responses were possible.