

**Prevalence and Predictors of Sexual Aggression
Victimization and Perpetration in Chile and Turkey:
A Cross-Cultural Analysis**

by

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Abstract

Background: Although sexual aggression is recognized as a serious issue worldwide, the current knowledge base is primarily built on evidence from Western countries, particularly the U.S. For the present doctoral research, Chile and Turkey were selected based on theoretical considerations to examine the prevalence as well as predictors of sexual aggression victimization and perpetration. The first aim of this research project was to systematically review the available evidence provided by past studies on this topic within each country. The second aim was to empirically study the prevalence of experiencing and engaging in sexual aggression since the age of consent among college students in Chile and Turkey. The third aim was to conduct cross-cultural analyses examining pathways to victimization and perpetration based on a two-wave longitudinal design.

Methods: This research adopted a gender-inclusive approach by considering men and women in both victim and perpetrator roles. For the systematic reviews, multiple-stage literature searches were performed, and based on a predefined set of eligibility criteria, 28 studies in Chile and 56 studies in Turkey were identified for inclusion. A two-wave longitudinal study was conducted to examine the prevalence and predictors of sexual aggression among male and female college students in Chile and Turkey. Self-reports of victimization and perpetration were assessed with a Chilean Spanish or Turkish version of the Sexual Aggression and Victimization Scale. Two path models were conceptualized in which participants' risky sexual scripts for consensual sex, risky sexual behavior, sexual self-esteem, sexual assertiveness, and religiosity were assessed at T1 and used as predictors of sexual aggression victimization and perpetration at T2 in the following 12 months, mediated through past victimization or perpetration, respectively. The models differed in that sexual assertiveness was expected to serve different functions for victimization (refusal assertiveness negatively linked to victimization) and perpetration (initiation assertiveness positively linked to perpetration).

Results: Both systematic reviews revealed that victimization was addressed by all included studies, but data on perpetration was severely limited. A great heterogeneity not only in victimization rates but also in predictors was found, which may be attributed to a lack of conceptual and methodological consistency across studies. The empirical analysis of the prevalence of sexual aggression in Chile revealed a victimization rate of 51.9% for women and 48.0% for men, and a perpetration rate of 26.8% for men and 16.5% for women. In the Turkish original data, victimization was reported by 77.6% of women and 65.5% of men, whereas, again, lower rates were found for perpetration, with 28.9% of men and 14.2% of women reporting at least one incident. The cross-cultural analyses showed, as expected, that risky sexual scripts informed risky sexual behavior, and thereby indirectly increased the likelihood of victimization and perpetration at T2 in both samples. More risky sexual scripts were also linked to lower levels of refusal assertiveness in both samples, indirectly increasing the vulnerability to victimization at T2. High sexual self-esteem decreased the probability of victimization at T2 through higher refusal assertiveness as well as through less risky sexual behavior also in both samples, whereas it increased the odds of perpetration at T2 via higher initiation assertiveness in the Turkish sample only. Furthermore, high religiosity decreased the odds of perpetration and victimization at T2 through less risky sexual scripts and less risky sexual behavior in both samples. It reduced the vulnerability to victimization through less risky sexual scripts and higher refusal assertiveness in the Chilean sample only. In the Turkish sample only, it increased the odds of perpetration and victimization through lower sexual self-esteem.

Conclusions: The findings showed that sexual aggression is a widespread problem in both Chile and Turkey, contributing cross-cultural evidence to the international knowledge base and indicating the clear need for implementing policy measures and prevention strategies in each country. Based on the results of the prospective analyses, concrete implications for intervention efforts are discussed.

1. Introduction

Achieving and maintaining sexual health, defined as “a state of physical, emotional, mental and social well-being in relation to sexuality” (WHO, 2006, p. 5), is a major goal throughout life and inextricably linked to positive sexual experiences based on consensus and respect (Vanwesenbeeck, 2008). However, sexual aggression, defined 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), may compromise an individual’s sexual as well as physical and psychological health (see Martin, Macy, & Young, 2011, for an overview). An extensive body of studies over the last few decades has shown that sexual aggression is a widespread issue, experienced and perpetrated by both women and men (see Bagwell-Gray, Messing, & Baldwin-White, 2015; Krahé, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014; Winzer, Krahé, & Guest, 2017, for reviews). Estimations indicate that one in five women in the United States (U.S.) experience sexual victimization while in college (see Muehlenhard, Peterson, Humphreys, & Jozkowski, 2017, for a review), and a lower but still substantial proportion of college men (e.g., Banyard et al., 2007; Cantor et al., 2015; Flack et al., 2007; Navarro & Clevenger, 2017). These alarmingly high prevalence rates among college students in the U.S., which have even been described as *epidemic* (Carey, Durney, Shepardson, & Carey, 2015), have led to the formation of the *White House Task Force to Protect Students from Sexual Assault* in 2014 with the aim of assessing the extent of sexual aggression, implementing and evaluating intervention programs to reduce sexual aggression on college campuses, and improving services for victims (White House Task Force to Protect Students from Sexual Assault, 2017). However, the topic of sexual aggression among young adults outside the U.S. or Western Europe, where research efforts in this area have increased in recent years, has received little attention by research and policy, despite evidence that prevalence rates of sexual aggression victimization and perpetration are similar to or even higher than those revealed in the U.S. (Abrahams et al., 2014; Chan, Straus, Brownridge, Tiwari, & Leung, 2008).

In addition, to understanding the processes that may underlie sexual aggression, it is important to study explanatory factors at different levels (European Commission, 2010; Tharp et al., 2013), ranging from societal to individual factors, particularly those associated with increased vulnerability to sexual victimization and increased risk of sexual aggression perpetration (Knight & Sims-Knight, 2011; Ullman & Najdowski, 2011). Despite the importance for public health and the development of culture-sensitive intervention programs against sexual aggression, there is also a shortage of this kind of research outside the U.S. and Western Europe.

To address some of these limitations, the purpose of the present doctoral research was to examine the prevalence and predictors of sexual aggression in Chile, a Latin American country, and Turkey, a transcontinental country in Eurasia. These two countries have been selected for inclusion based on theoretical considerations important for the understanding of sexual aggression victimization and perpetration. They offer themselves for a cross-cultural comparison as they do not differ in their degree of gender equality, which is discussed as having an impact on the prevalence of sexual aggression in a country (Hines, 2007; Krahe et al., 2015; Martin, Vieraitis, & Britto, 2006), and score lower in this area than most Western countries (United Nations Development Programme, 2016). Furthermore, although both countries are secular, they are strongly influenced by the predominant religion, which is Catholicism in Chile and Sunni Islam in Turkey. Therefore, Chile and Turkey are theoretically interesting for a comparison in relation to each other as well as to evidence from Western countries.

The present doctoral thesis presents a program of research that sought to achieve three major goals: First, to get a clear picture of the scope of sexual aggression in Chile and Turkey by systematically reviewing the evidence provided by past studies on the prevalence and predictors of sexual aggression victimization and perpetration in these two countries. Second, to conduct an empirical analysis of the prevalence of sexual aggression victimization and perpetration among male and female college students in Chile and Turkey since the age of consent, considering both men and women as potential victims and perpetrators of sexual aggression. Third, to empirically study factors that increase the vulnerability to sexual victimization and risk of sexual aggression perpetration among male and female college students in Chile and Turkey.

The present doctoral thesis is divided into the following chapters: Following the *Introduction*, *Chapter 2* gives an overview of the definitions and measurement of sexual aggression as well as prevalence rates in the U.S. and from cross-cultural research. In addition, explanations of sexual aggression are provided, describing the macro-level approach and individual risk and vulnerability factors in detail. *Chapter 3* addresses sexuality in these two countries, giving information about both societal expectations around sexual relations and young adults' onset of sexual activities, which is important for the understanding of the cultural context as it may have an impact on the prevalence of sexual aggression. *Chapter 4* presents the major goals of this doctoral research as well as the specific research questions, which are addressed by the two review articles and four empirical studies included in this thesis. *Chapter 5* covers the systematic review of prevalence rates and predictors of experiencing and engaging in sexual aggression in Chile (Study 1), and *Chapter 6* includes the systematic review of studies

in Turkey (Study 2). The empirical study on the prevalence of sexual aggression victimization and perpetration in female and male college students in Chile since the age of consent (Study 3) is presented in *Chapter 7*, and *Chapter 8* covers the empirical study on the corresponding prevalence rates among college students in Turkey (Study 4). The cross-cultural examination of vulnerability factors of sexual victimization based on a two-wave longitudinal design (Study 5), considering sexuality-related cognitions and behavior as well as religiosity, is provided in *Chapter 9*, while *Chapter 10* presents cross-cultural evidence on risk factors of sexual aggression perpetration (Study 6), also analyzing religiosity and sexuality-related cognitions and behavior. Finally, *Chapter 11* covers the general discussion of the main findings of all six studies with respect to the international evidence base. Beyond this, implications for practice and future research as well as the strengths and limitations of this doctoral research are discussed. The *Appendix* includes the Spanish and Turkish translations of the Sexual Aggression and Victimization Scale (SAV-S; Krahe & Berger, 2013).

2. Sexual Aggression: Definitions, Measurement, Prevalence, and Explanatory Approaches

2.1. Defining Sexual Aggression

Undeniably, it is a challenging task to develop a precise definition of sexual aggression, particularly given the broad range of behaviors that may constitute it. According to Krahe (2013), there are at least three different frameworks for defining sexual aggression: (1) *common-sense definition*, (2) *legal definition*, and (3) *research definition*.

The common-sense definition is informed by stereotypical assumptions about sexual aggression widely shared in a society. On the basis of the *real rape stereotype*, sexual aggression is presumed to be an incident in a dark, outdoor location (e.g., a park or lonely street) perpetrated by a male stranger through the use or threat of physical force against a woman who shows active physical resistance (Davis & Lee, 1996; Ryan, 2011). Coercive strategies other than physical force, such as verbal pressure or the exploitation of an incapacitated state, and different relationship constellations, as in sexual aggression by an intimate partner or acquaintance, are not included in this limited definition. A large body of research has challenged this notion by demonstrating that both women and men are most likely to be assaulted by an intimate (ex-)partner or friend, often at home or in social situations that involve the use of alcohol (Lehrer, Lehrer, & Koss, 2013b; Lehrer, Lehrer, Lehrer, & Oyarzún, 2007). Consequently, endorsing this stereotype may mean that a wide range of sexual activities perpetrated against a person's will are not recognized as sexual aggression because they do not match the stereotypical expectations (Cook, Gidycz, Koss, & Murphy, 2011; Kilpatrick, 2004; Peterson & Muehlenhard, 2004).

The legal definition specifies what types of sexual contact and coercive strategies constitute rape or other sexual offenses. In Chile, rape is legally defined by the Chilean Penal Code (Article 361; Biblioteca del Congreso Nacional de Chile, 2015) and comprises oral, vaginal, or anal penetration of a person over the age of 14 through (1) the use of force or intimidation, (2) the exploitation of the victim's inability to resist or when the victim is unconscious, or (3) the abuse of the victim's mental disorder. Engaging in sexual activities with a person below the age of 14 is defined as child sexual abuse (Article 362 [statutory rape] and Article 366). In addition, oral, vaginal, or anal penetration of a person between ages 14 and 17 is legally persecuted if it involves the exploitation of (1) the adolescent's mental disturbance, (2) a relationship of care (e.g., foster care), (3) the adolescent's neglect, or (4) the adolescent's sexual inexperience ("estupro" legislation, Article 363).

In Turkey, rape is legally defined by the Turkish Penal Code (Article 102/2; Mevzuatı Geliştirme ve Yayın Genel Müdürlüğü, 2017) and refers to the violation of the victim's bodily integrity through the insertion of an organ or other object into the body. The penalty is increased (1) if the victim is physically or psychologically not able to defend herself/himself, (2) if the perpetrator exploits a position of public authority or power in an employment relationship, (3) if there is a blood or legal kinship between the victim and the perpetrator (third degree included), (4) if there is more than one perpetrator or a weapon is used, or (5) if the perpetrator exploits an environment where people live together. Sexual activity with a minor under the age of 15 is considered child sexual abuse (Article 103). Additionally, consensual sexual intercourse with an adolescent in the age bracket of 15 to 17 years can be prosecuted upon complaint (Article 104). Regardless of complaint, legal proceedings are conducted if the perpetrator was obligated to take care of the victim (e.g., due to foster care) or if the victim and the perpetrator are legally prohibited from marrying (Article 104).

A general issue with legal definitions of rape refers to their restrictions in scope. An analysis of rape legislations in 27 countries of the European Union revealed that only three countries had solely consent-based definitions, whereas 11 member states retained definitions based on the use of force (European Commission, 2010). Similarly, the legal definition of rape differs substantially between Chile and Turkey. In Turkey, a broad definition according to human rights standards is adopted by the legal system in which, for example, the proof of physical force is not required for prosecution (United Nations, 2010). By contrast, the definition according to the Chilean Penal Code is of much narrower scope, being based on physical force and incapacity. Given that each country's criminal justice data is based on the respective legal definition, direct comparisons of the number of annual incidents are not possible. This does not only affect Chile and Turkey, but also cross-country comparisons on this basis are potentially misleading (Krahé, 2013).

With respect to the conceptualization of sexual aggression in research, there is to date no standard definition used by all sexual violence researchers, a fact which renders comparisons across different surveys problematic (Bagwell-Gray et al., 2015; Cook et al., 2011; Krahé et al., 2014; Krebs, 2014). To overcome this issue, Krahé and Vanwesenbeeck (2016) proposed four dimensions that should be considered for a comprehensive conceptual and operational definition of sexual aggression: (1) type of coercive strategy by which nonconsensual sexual activities are carried out (e.g., the use or threat of physical force, the use of verbal pressure), (2) type of sexual act or contact (e.g., sexual touch, attempted penetration), (3) relationship

constellation (e.g., current partner, acquaintance), and (4) gender constellation (e.g., female/male victimization by men/women).

Based on these recommendations, sexual aggression is defined in this research project 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), encompassing different coercive strategies and sexual activities in different victim-perpetrator relationship constellations. This definition comprises experiencing and perpetrating sexual aggression by women and men, and is compatible with the definition provided by the World Health Organization (WHO, 2014b), an internationally recognized agency concerned with public health, which defines sexual violence as

any sexual act or attempt to obtain a sexual act, unwanted sexual comments or advances or acts to traffic that are directed against a person's sexuality using coercion by anyone, regardless of their relationship to the victim, in any setting, including at home and at work. (p. 84)

In addition, through the adoption of Krahé and colleagues' (2015) conceptual definition instead of a legal definition, prevalence rates of sexual aggression across countries with different laws regarding rape and other sexual offenses can be compared and are not affected by changes in jurisdiction (Krahé & Vanwesenbeeck, 2016).

In summary, the conceptualization and definition of sexual aggression in general and rape in particular vary widely depending on the specific context and legislation. Although, there is no commonly shared research definition of sexual aggression to date, recommendations have been outlined to work toward this goal and are adopted in this doctoral research. In addition, not only the conceptualization but also the measurement of sexual aggression is a challenging enterprise, as presented in the following section.

2.2. Measuring Sexual Aggression Victimization and Perpetration

The accurate and precise measurement of sexual aggression victimization and perpetration may be the biggest challenge faced by sexual violence researchers (Truman & Rand, 2010). Sexual victimization is not only a very sensitive subject, but also a taboo topic in many countries around the world (e.g., Abrahams et al., 2014; Ranharter & Stansfield, 2016). In addition, being both a victim and/or perpetrator of sexual aggression is associated with stigmatization by society (Murray, Crowe, & Akers, 2016), which may have an impact on the disclosure of such incidents (Abrahams et al., 2014; Kelly, Lovett, & Regan, 2005).

Beyond these social challenges, there are also conceptual and methodological issues related to the measurement of sexual aggression. One problem refers to the mode of assessment, namely in the form of a self-administered questionnaire or a face-to-face interview. Although many previous studies were based on interviews, including surveys which have had a critical role in informing policy decisions¹, there is at least some consensus on the benefits of self-administered surveys (Kolivas & Gross, 2007; Krebs, 2014). For example, the increased reporting of sensitive topics and minimized tendency toward socially desirable responses are advantages of self-administered survey modes over modes involving personal contact with an interviewer (Tourangeau & Smith, 1996; Tourangeau & Yan, 2007). A comparison of different assessment modes (computer-administered survey, paper-and-pencil questionnaire, and face-to-face interview) additionally showed that participants of the computer-administered survey had the most trust that their responses would be kept confidential (DiLillo, DeGue, Kras, Di Loreto-Colgan, & Nash, 2006). Likewise, participants of another study reported greater perceived anonymity in the online assessment of sensitive data compared to completion of the same questionnaire in a private laboratory room (Brock et al., 2015). The findings of this study also suggest that assessing data online does not compromise its integrity and may even elicit more reliable responses.

Another challenge in measuring sexual aggression refers to the phrasing of items, ranging from very broad and global questions, such as “Have you been raped?”, to behaviorally specific questions that describe a sexually aggressive incident in graphic language (e.g., “Someone had oral sex with me or made me have oral sex with them without my consent by using force, for example holding me down with their body weight, pinning my arms, or having a weapon.”; Koss et al., 2007). Asking very broad and unspecific questions may cause responses to be influenced by stereotypical notions of sexual aggression (see also Chapter 2.1.), which in turn may lead to an underdetection of sexual aggression (see Cook et al., 2011, for an overview). In line with this reasoning, studies comparing the use of broad versus behaviorally specific questions have conclusively demonstrated the superiority of the latter assessment method (e.g., Fisher, 2009; Koss, 1993; Marsil & McNamara, 2016). In particular, a description in graphic language seems to facilitate the recall of sexually aggressive incidents (Fisher, 2009).

To overcome the bias of broad questions, measures using behaviorally specific items have been developed and validated. Among the most commonly used instruments are the *(Revised) Sexual Experiences Survey* (SES; Koss et al., 2007; Koss, Gidycz, & Wisniewski,

¹ Examples for interview studies that inform policy processes are the *National Crime Victimization Survey* administered by the U.S. Department of Justice and the *National Intimate Partner and Sexual Violence Survey* administered by the Centers for Disease Control and Prevention (U.S.).

1987) and the *Revised Conflict Tactics Scale* (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996; Straus, Hamby, & Warren, 2003). More recently, another measure, the *Sexual Aggression and Victimization Scale*, has been developed and validated in cross-cultural research (SAV-S; Krahe & Berger, 2013; Krahe et al., 2015, 2016). Similar to the SES, the SAV-S differentiates between various coercive tactics and sexual acts, but allows, unlike the SES, a cross-classification of coercive strategies, sexual acts, and relationship constellations. Hence, a systematic breakdown of prevalence rates is facilitated, which is crucial for the understanding of sexual aggression.

2.3. Data on the Prevalence of Sexual Aggression Victimization and Perpetration

2.3.1. Scope of the Current Evidence Base

30 years ago, Koss and her colleagues (1987) conducted an innovative and ground-breaking study on the prevalence of sexual aggression victimization and perpetration among college students in the U.S., laying the foundation for future empirical research. Applying a behaviorally specific instrument, the Sexual Experiencing Survey, to a large national sample ($N = 6,159$), the authors found an overall victimization rate of 53.7% among women and an overall perpetration rate of 25.1% among men², referring to the period since the age of 14. Prevalence rates broken down by their level of severity showed that rape³ was reported by 15.4% of women from the victim's perspective and by 4.4% of men from the perpetrator's perspective. Due to the high prevalence of sexual aggression and the associated increased awareness of this issue, Koss and colleagues' (1987) study was followed by numerous small- and large-scale studies on this topic.

Even though sexual aggression is seen as a serious threat to public health, a closer inspection of the literature shows that the current knowledge base is limited in several ways. First, there is an imbalance of data, insofar as there are more studies on the prevalence of sexual victimization than of sexual aggression perpetration (Krahe et al., 2014; Schrag, 2017). Second, the focus of past research was predominantly on male perpetration and female victimization, reinforcing stereotypical notions about sexual aggression (Stemple & Meyer, 2014). However, there is growing evidence that men may also be victimized (Aosved, Long, & Voller, 2011;

² The overall score of both sexual aggression victimization and perpetration included different sexual activities, ranging from sexual touch to anal, oral, and vaginal intercourse, against a woman's will through the use or threat of physical force, incapacitation due to alcohol or drugs, verbal pressure, or the exploitation of a position of authority.

³ Rape was defined as sexual intercourse against a woman's will because a man gave the woman alcohol or drugs or through the use or threat of physical force. Oral or anal intercourse and penetration by objects against a woman's will through the use or threat of physical force were also considered rape.

Navarro & Clevenger, 2017; see Peterson, Voller, Polusny, & Murdoch, 2011, for a review) and that women may also perpetrate sexual aggression (see Fisher & Pina, 2013, for a review; Krahe et al., 2015; Stemple, Flores, & Meyer, 2017), calling for a gender-inclusive conceptualization of sexual aggression (see Turchik, Hebenstreit, & Judson, 2016, for an outline). Taking male-to-female, female-to-male, and same-gender sexual aggression into account, this approach would contribute to a more global, not gender-limited understanding of sexual aggression and acknowledge non-stereotypical forms. Third, although sexual aggression is recognized as a serious problem worldwide (WHO, 2013), research is limited to certain geographical areas: The majority of studies on the prevalence of sexual aggression have been conducted in Anglo-Saxon countries, particularly in the U.S., and, increasingly, Western Europe, whereas data from non-Western countries, including Chile and Turkey, is rare.

Despite these limitations, the available body of literature clearly shows that sexual aggression is a serious issue, linked to deleterious effects on health (see Jina & Thomas, 2013; Martin, Macy, et al., 2011, for overviews). Furthermore, studies have suggested that young adults, particularly college students, may be at high risk (Flack et al., 2008), highlighting the importance of examining sexual aggression in this age group. In the following sections, an overview of the prevalence of sexual aggression victimization and perpetration in college-aged populations is provided. First, data from the U.S. will be presented, followed by an overview of data from cross-cultural research. Evidence from Chile and Turkey is not yet introduced, however, because prevalence rates found in these countries will be systematically reviewed and discussed in detail in Chapters 5 and 6, respectively.

2.3.2. Data from the United States

In the U.S., an important source of information on sexual victimization is the *National Crime Victimization Survey* (NCVS) commissioned by the Bureau of Justice Statistics, a governmental agency belonging to the Department of Justice. This ongoing survey relies on nationally representative samples of U.S. households (e.g., 95,760 households and 163,880 persons in the 2015 survey⁴) and is the only large-scale study that monitors sexual victimization on an annual basis, albeit with a strict focus on crime. Addressing sexual victimization in the last six months, the survey asks participants about rape, defined as anal, oral, or vaginal penetration against her or his will through psychological coercion or the use or threat of physical force, and sexual assault, referring to unwanted sexual contact other than rape (e.g., fondling, grabbing), where the use of force is not a defining element.

⁴ <https://www.bjs.gov/index.cfm?ty=dcdetail&iid=245>

An analysis of victimization rates for the period 1995-2013 revealed that women within the age bracket of 18 to 24 years reported the highest rates of rape and sexual assault compared to women in all other age groups (women aged between 12 and 17, or 25 and older), putting them at particularly high risk (Sinozich & Langton, 2014). For college students, the average rate of rape and sexual assault in this period was 6.1 per 1,000 for women, corresponding to 31,302 annual female victims, and 1.4 per 1,000 for men, corresponding to 6,544 annual male victims. It is noteworthy that these victimization rates, particularly among women, are considerably lower compared to numerous other studies that commonly found that one in five women had experienced rape while at college (see Muehlenhard et al., 2017, for a review). Therefore, the NCVS has been criticized by many sexual violence researchers (e.g., Cook et al., 2011; Fisher, 2009; Muehlenhard et al., 2017), in particular for the following reasons:

- (1) the definition of rape and sexual assault is influenced by a criminal justice perspective,
- (2) questions concerning rape and sexual assault are asked along with questions about other crimes, which may undermine the detection of sexual victimization since many victims do not classify their experience as a crime,
- (3) the definition does not cover incidents through the exploitation of an incapacitated state of the victim, which is, by contrast, an important defining element in many other studies (e.g., Breiding et al., 2014; Martin, Fisher, Warner, Krebs, & Lindquist, 2011),
- (4) the sample size is too small to accurately measure sexual victimization,
- (5) participants are interviewed via telephone, implying a lack of privacy, and
- (6) the wording of the screening questions is too general.

Due to these limitations, the National Research Council (2014) inferred that “it is likely that the NCVS is undercounting rape and sexual assault victimization” (p. 4).

Other useful sources that provide insight into the prevalence of sexual victimization among college students in the U.S. are, for example, the *Campus Sexual Assault Study* (CSA; Krebs, Lindquist, Warner, Fisher, & Martin, 2007) and the *AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct* (Cantor et al., 2015). Both studies applied behaviorally specific measures and relied on large samples (CSA: $N = 6,821$; AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct: $N = 150,072$), but differed in their operational definition of sexual victimization. The CSA definition of sexual assault is limited to unwanted or nonconsensual sexual contact (e.g., forced touching, sexual intercourse, and oral sex) through the use of force or due to incapacitation, not covering, for instance, verbal pressure or emotional coercion. By comparison, the definition of the AAU Campus Climate Survey on Sexual Assault

and Sexual Misconduct refers to penetration and sexual touching through four tactics, namely (1) the use or threat of physical force, (2) the exploitation of an incapacitated state, for instance due to drugs or alcohol, (3) coercive verbal threats or promised rewards, and (4) the absence of affirmative consent. Thus, the different operationalization may explain the varying findings. In the CSA study, 19.0% of women and 6.1% of men reported attempted or completed sexual assault victimization since entering college, whereas the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct revealed a slightly higher prevalence among women, with 23.6% of female participants reporting attempted or completed penetration or sexual touching in the same time frame. Despite the different operationalization, a similar rate (5.8%) was found among men.

As noted before, a large body of research has addressed the prevalence of sexual victimization, whereas much fewer studies examine sexual aggression from the perpetrator perspective and this almost exclusively within all-male samples. Typically, self-reported rates of sexual aggression perpetration are lower than rates of sexual victimization (see Kolivas & Gross, 2007, for an overview) but do demonstrate the widespread presence. Recent studies using the Sexual Experiences Survey (Koss et al., 2007), however, repeatedly revealed relatively high perpetration rates of around 30% among male college students since the age of 14 (e.g., Dardis, Murphy, Bill, & Gidycz, 2016; Swartout, Swartout, Brennan, & White, 2015). At the same time, even less research attention has been paid to female perpetrators of sexual aggression, and perpetration rates have been found to vary widely between 2% and 24% (see Fisher & Pina, 2013, for a review).

2.3.3. Data from Cross-Cultural Research

Numerous studies have examined the prevalence of sexual aggression, particularly sexual victimization, among college students in the U.S. (see Fedina, Holmes, & Backes, 2016, for a review of victimization rates) but at the same time, there is a shortage of evidence from cross-cultural research. A review of the prevalence of sexual aggression among young adults in 27 European countries revealed not only substantial victimization and perpetration rates but also a great variability within and between countries (Krahé et al., 2014). For example, lifetime victimization rates among women ranged between 9.0% in Belgium and 83.9% in the Netherlands; the corresponding range among men was 1.1% in Estonia to 66.3% in the Netherlands. Regarding sexual aggression perpetration, again, rates varied widely between 0.8% in the Czech Republic and 40.1% in Spain among women and between 0% in Romania and 80.5% in Greece among men. Although a central question is whether systematic differences

exist in prevalence rates across countries, stringent comparisons were not possible in this review due to great conceptual and methodological differences across the studies.

To address these limitations, some studies used the same conceptual definition and measure to assess sexual aggression in different countries. For example, in the study by Krahé and colleagues (2015), the Sexual Aggression and Victimization Scale (Krahé & Berger, 2013) was used to measure victimization and perpetration since the age of consent among young adults in 10 countries of the European Union. Similar to the findings in the review (Krahé et al., 2014), great differences in prevalence rates across countries were found: victimization rates ranged between 19.7% in Lithuania and 45.5% in Greece among women and between 10.1% in Belgium and 55.8% in Greece among men. Perpetration rates were generally lower, ranging between 2.6% and 14.8% among women and between 5.5% and 48.7% among men, with the lowest and highest rates coming from Belgium and Greece, respectively. Another study (Chan et al., 2008) used the revised Conflict Tactics Scales (CTS2; Straus et al., 1996) to assess sexual aggression victimization and perpetration in dating relationships among college students in 21 countries, covering Australia and New Zealand as well as various nations in Asia, Europe, Latin America, and North America. Again, prevalence rates for both victimization and perpetration ranged widely across countries. Among women, between 9.2% (the Netherlands) and 42% (Greece) reported victimization and between 5.9% (Belgium) and 28.9% (Brazil) reported perpetration. Among men, victimization rates ranged between 8.7% and 59.5% and perpetration rates ranged between 9.3% and 62.2%, with the lowest rates in both cases reported in Hong Kong and the highest in Greece.

None of these cross-cultural studies included samples from Chile or Turkey, and no systematic pattern of differences in male and female prevalence rates across countries was found. However, it is noteworthy that in each of the two studies, high victimization and perpetration rates were revealed in Greece, a country neighboring Turkey.

2.4. Explaining Sexual Aggression

There is a broad consensus that no single factor can completely explain sexual aggression (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002; Tharp et al., 2013). To establish an explanatory framework, factors at different levels, ranging from the level of the society to the level of the individual, as well as their interplay are investigated by sexual violence researchers (see European Commission, 2010; Krug et al., 2002; Tharp et al., 2013, for overviews). In particular, explanations at the macro-level and the study of individual vulnerability and risk factors play a

key role in the understanding of this issue (Krahé, 2013). In the following sections, both macro-level explanations and individual predictors will be presented in more detail.

2.4.1. Macro-Level Explanations

2.4.1.1. *Feminist Theory*

Feminist theory⁵ proposes an explanatory framework in which characteristics of a society are seen as sources of sexual aggression. More precisely, it is argued that its existence and persistence emanates from the social and economic power imbalance between the two gender groups and the associated subordination of women (see Hines, 2007; Rennison, 2014, for overviews). Differences in power appear not only at a socio-structural level (e.g., gender inequality in education and political participation), but are also reflected in socio-cultural beliefs concerning rape and the role of men and women (White, Kadlec, & Sechrist, 2006).

According to this perspective, practices and beliefs depreciating women may legitimate and promote sexual aggression perpetration by men and contribute to making women more vulnerable to sexual victimization (Scarpati & Pina, 2017). Aggression in general and rape in particular are assumed to enable men to assert and maintain their social dominance over women. Additionally, given the belief that males are superior to females, which is particularly inherent in patriarchal societies, men claim the right to obtain sexual satisfaction whenever they want regardless of the needs and wishes of women. Based on these propositions, it is expected that patriarchal societies with pronounced social, economic, and legal differences between the two gender groups demonstrate higher rates of sexual aggression.

Traditionally, feminist perspectives on sexual aggression have focused on men as perpetrators and women as victims. However, this overlooks male victimization and female perpetration. For this reason, some researchers have argued that in societies in which women have greater power, male victimization by women would be more common (see Hines, 2007, for an overview). Similar to processes in patriarchal societies, the shift of gender roles may promote sexual aggression perpetration by women. For example, women who gain power in different domains may also claim their right to sexual satisfaction whenever they want it, regardless of the partner's wishes.

Despite the approach's societal relevance, only a few studies have empirically evaluated the link between the status of women or gender equality and the prevalence of sexual

⁵ It is important to highlight that there is no such thing as a "standard feminist theory" which is based exclusively on a single paradigm. In the literature, at least 12 variants of feminist theory are discussed (Rennison, 2014). In this sense, the term "feminist theory" comprises and summarizes perspectives shared by various theories on how societal features have an impact on the role of women, gender relations, and aggression.

aggression. Although the results have not been completely consistent, with studies showing both positive and negative effects of gender equality (see Martin et al., 2006, for a review), there is some empirical support for the feminist theory. For example, Hines (2007) analyzed the status of women and the rate of female and male sexual coercion across 38 sites from 20 countries, showing that a higher status of women was linked to a lower rate of forced sexual victimization among women and a higher rate among men. More recently, Krahe et al. (2015) examined the link between gender equality and the prevalence of sexual aggression victimization and perpetration using data from 10 countries of the European Union. Lower gender equality in the areas of economic power and work were associated with higher rates of male perpetration, but no corresponding effects were found for female perpetration rates. With respect to sexual victimization, higher equality in terms of political power was linked to lower male victimization rates, whereas no significant effects for either women or men were shown for gender equality in economic power and work. Although the results of this and past studies are not completely consistent, they indicate that societal factors, such as gender equality, should be considered to understand the dynamics of sexual aggression. At the macro-level, religion is another important source of influence, which has an impact not only on social norms but also on individual attitudes and behavior, as outlined in the following section.

2.4.1.2. Religion

Even though religion is typically assessed at an individual level in the form of religiosity, usually referring to religious commitment, involvement, or importance, it can also be understood as a factor at the macro-social level in the sense of a shared belief system transmitted from generation to generation (Fiske, Kitayama, Markus, & Nisbett, 1998; Schnabel, 2016; Vandello, 2016). In the literature, it is assumed that religious institutions have an undeniable impact on social and cultural norms, beliefs, and values (Inglehart & Norris, 2003). Evidence comes, for example, from cross-cultural research demonstrating that a higher proportion of non-religious people in a country were linked to greater gender equality (Schnabel, 2016), which in turn has been discussed as having an impact on the prevalence of sexual aggression in a country, as outlined above. In addition, not only factors at the macro level are influenced by religion, but also individual-level attitudes. For instance, Moore and Vanneman (2003) showed that the higher the proportion of Christian fundamentalists (e.g., Jehovah's Witnesses, Mormons) in a U.S. state, the more conservative the gender attitudes were at an individual level, regardless of the individual's degree of religiosity. These findings suggest that religion may be understood

as an important macro-level factor influencing both socially-shared and individual norms which in turn may condone or normalize sexual aggression.

To date, it is unclear whether or how religion at a macro level and sexual aggression victimization and perpetration at an individual level are associated. However, there is some evidence suggesting that religion may be linked to differences in prevalence rates. Support for this proposition is provided by Chon's (2013) study, which showed that Muslim countries registered lower rates of sexual victimization than non-Muslim countries.

Altogether, the study of macro-level factors is regarded as important for the explanation of sexual aggression, even though not all underlying processes, particularly the complex interplay with factors at the individual level, are conclusively understood. Because the macro-level factors gender equality and religion may at least partially explain differences in prevalence rates of sexual aggression across cultures, in this doctoral research the selection of countries was based on these theoretical considerations. Chile and Turkey offer themselves up for a cross-cultural comparison because the level of gender inequality is similar in both countries while at the same time they score higher than Western countries, like Canada, Germany, the United Kingdom, or the U.S., for example (United Nations Development Programme, 2016)⁶, in which most research on sexual aggression has been conducted. In addition, religion is an essential part of both Chilean and Turkish societies, influencing gender role prescriptions and norms regarding sexual behavior (Lehrer, Lehrer, & Krauss, 2009; Yaşan, Essizoglu, & Yildirim, 2009). However, both countries differ in their religious backgrounds, with Chile as a predominantly Catholic country and Turkey as a predominantly Muslim country. These aspects render Chile and Turkey theoretically interesting for a comparison in relation to each other as well as to evidence from Western countries.

Although macro-level factors help explain why some countries may be more prone to sexual aggression than others, this approach is not sufficient. It does not explain why only some of the individuals in a society perpetrate sexual aggression when others do not, even though all are exposed to the same cultural conditions. To understand why a person may become a perpetrator and/or victim, it is necessary to study risk and vulnerability factors at an individual level (Krahé, 2013).

⁶ The Gender Inequality Index provided by the United Nations Development Programme is a composite measure that is calculated on the basis of women's reproductive health, empowerment, and labor market participation. According to the latest index, Chile and Turkey have a very similar value, 0.322 and 0.328, respectively, and are ranked in the middle of this index, whereas most Western countries (e.g., Canada, Germany, the Netherlands, the U.S.) are ranked lower, indicating greater gender equality (United Nations Development Programme, 2016).

2.4.2. Individual-Level Predictors of Sexual Aggression Victimization and Perpetration

2.4.2.1. *Conceptualization of Risk and Vulnerability Factors*

In contrast to the macro-level approach, the study of individual risk and vulnerability factors aims to examine why some persons are more likely to engage in or experience sexual aggression than others who are exposed to the same societal conditions. In this line of research, *risk factors* are defined as variables that predict an increased likelihood of engaging in sexual aggression (Knight & Sims-Knight, 2011), whereas *vulnerability factors* refer to variables that predict an increased probability of experiencing sexual aggression (Ullman & Najdowski, 2011). It is important to emphasize that the study of vulnerability factors does not imply any blame or responsibility on the part of the victim. Rather, the goal of this approach is to understand which conditions and situations may increase a person's vulnerability to sexual victimization with a view to identifying target variables for prevention programs to reduce the odds of sexual victimization (Krahé, 2013).

In the literature, a number of factors have been identified to increase the probability of victimization and/or perpetration (see Knight & Sims-Knight, 2011; Tharp et al., 2013; Ullman & Najdowski, 2011, for reviews). Particularly, mental representations of consensual sexual interactions, referred to as sexual scripts, are considered to play a key role in the explanation of sexual aggression, as they guide sexual behavior. The basic assumption is that elements in sexual scripts, which have been associated with a higher likelihood of sexual aggression victimization and perpetration, increase the probability of experiencing and engaging in sexual aggression through their impact on corresponding sexual behavior. Building on this, the present doctoral research evaluates models for the prediction of sexual aggression victimization and perpetration based on the construct of sexual scripts and their impact on sexual behavior. In addition, it is examined how sexual scripts and sexual behavior are shaped by socio-cultural variables, specifically religiosity. At the same time, sexual scripts are studied in relation to other sexuality-related cognitions (sexual self-esteem) and behaviors (sexual assertiveness) that have been associated with an increased vulnerability to sexual victimization and increased risk of sexual aggression perpetration.

How these constructs relate to sexual aggression in detail as well as their interrelation will be presented in the following sections. The proposed models for predicting sexual aggression victimization and perpetration are depicted in Chapter 4 in Figures 1 and 2.

2.4.2.2. *Risky Sexual Scripts and Risky Sexual Behavior*

Sexual scripts are conceptualized as mental representations of consensual sexual interactions (Krahé, Bieneck, & Scheinberger-Olwig, 2007; Metts & Spitzberg, 1996). Comprising expectations about sequences of events or behaviors that are regarded as appropriate for a specific situation, they serve as a guideline for sexual behavior (Simon & Gagnon, 1986). A core assumption is that sexual scripts are influenced by cultural-specific norms and beliefs about sexuality (e.g., what is defined as sex, appropriate vs. inappropriate sexual activity) but then adapted by each individual (Metts & Spitzberg, 1996). Simon and Gagnon (1984) describe this as “a process that transforms the social actor from being exclusively an actor to being a partial scriptwriter or adapter shaping the materials of relevant cultural scenarios into scripts for behavior in particular contexts” (p. 53).

The theory of sexual scripts has been widely applied to different topics in sexuality research, for example to explain dating behavior (Eaton, Rose, Interligi, Fernandez, & McHugh, 2016; Emmers-Sommer et al., 2010; O’Sullivan & Byers, 1992) and HIV risk (e.g., Bowleg, Lucas, & Tschann, 2004; Hussen, Bowleg, Sangaramoorthy, & Malebranche, 2012; Jordan, Johnson, Johnson, & Holman, 2016). To understand sexual aggression victimization and perpetration, the study of risk elements in sexual scripts has proven useful (Krahé et al., 2007). An individual’s sexual scripts may be considered *risky* to the extent that features that have been linked to an increased probability of victimization and perpetration constitute an integral part of them. As scripts serve to guide behavior, the key notion is that risky sexual scripts increase the probability of experiencing and engaging in sexual aggression through their influence on corresponding risky sexual behavior. Evidence for this link has been provided by previous studies in Brazil, Germany, and Poland (D’Abreu & Krahé, 2014, 2016; Krahé et al., 2007; Tomaszewska & Krahé, 2018). There is strong empirical support for concluding that the following elements are linked to higher odds of sexual aggression victimization and perpetration: (1) the use of alcohol in sexual situations, (2) ambiguous communication of sexual intentions, and (3) engagement in casual sex.

Drinking alcohol in sexual situations has been conclusively linked to a greater vulnerability to victimization among both gender groups (Kuyper et al., 2013) and to a higher probability of perpetration among men (see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004, for a review). In addition, it has been shown that women who engaged in sexual aggression had consumed alcohol earlier and more frequently than female non-perpetrators (Kjellgren, Priebe, Svedin, Mossige, & Långström, 2011). One pathway to explaining the increased risk of sexual aggression perpetration through alcohol involves the impairment of

higher-order cognitive processes and the narrowing of the perceptual field. Accordingly, the misperception of the other person's signals may be facilitated and the short-term benefits of sex may become more salient than the potential negative long-term effects. On the side of the victim, intoxication may undermine the recognition of risk cues and, due to motor and cognitive impairments, the ability to resist (see Abbey et al., 2004, for a review).

Sending out unclear messages about sexual intentions, such as saying *no* but meaning *yes* (Muehlenhard & Hollabaugh, 1988) or saying *yes* but meaning *no* (O'Sullivan & Allgeier, 1998), has been shown to heighten the odds of both sexual aggression victimization (Kuyper et al., 2013) and perpetration (Krahé, Scheinberger-Olwig, & Kolpin, 2000). On the one hand, inconsistent cues may mean that non-consent is not recognized, increasing both the vulnerability to sexual victimization and the probability of engaging in sexually aggressive behavior. On the other hand, if the ambiguous communication is an integral part of one's scripts, another person's sexual rejection may be not taken seriously, increasing the risk of sexual aggression perpetration.

Engaging in casual sex and having multiple partners has been found by a large body of research to predict sexual aggression victimization (Arata, 2000; Flack et al., 2007; Testa, VanZile-Tamsen, & Livingston, 2007) and perpetration (see Tharp et al., 2013, for a review). Particularly, it has been argued that a noncommittal sexual lifestyle may make an individual more likely to encounter a potential perpetrator and, at the same time, there are more potential situations in which one may behave in a sexually aggressive manner.

2.4.2.3. *Sexual Self-Esteem and Sexual Assertiveness*

At the level of sexuality-related cognitions, sexual self-esteem is conceptualized as the self-evaluation of one's sexuality in terms of sexual thoughts, feelings, and behaviors (Zeanah & Schwarz, 1996). Generally speaking, persons with high sexual self-esteem feel more assured and confident in sexual situations (Hensel, Fortenberry, O'Sullivan, & Orr, 2011; Zeanah & Schwarz, 1996), contributing to the development of a healthy sex life (Mayers, Heller, & Heller, 2003). There is also evidence for greater sexual satisfaction (Brassard, Dupuy, Bergeron, & Shaver, 2015; Ménard & Offman, 2009; Schick, Calabrese, Rima, & Zucker, 2010), a higher probability of safer sex practices, such as contraceptive use (Adler & Hendrick, 1991), greater knowledge of sexual risks (Rostosky, Dekhtyar, Cupp, & Anderman, 2008), a greater motivation to avoid risky sex (Schick et al., 2010), and a lower likelihood of engaging in casual sexual activities (Lemieux & Byers, 2008).

With respect to female and male sexual victimization, numerous cross-sectional and prospective studies have shown a protective function of high sexual self-esteem (e.g., French, Bi, Latimore, Klemp, & Butler, 2014; Krahe & Berger, 2017b; Van Bruggen, Runtz, & Kadlec, 2006). By contrast, the link between this construct and sexual aggression perpetration has gained little attention in research. However, Krahe and Berger (2017a) recently found that higher sexual self-esteem predicted lower odds of perpetration in men, but not in women.

At the level of sexual behavior, sexual assertiveness reflects the ability to make autonomous sexual choices by refusing unwanted sexual advances, conceptualized as *refusal assertiveness*, and initiating sexual activities, conceptualized as *initiation assertiveness* (Morokoff et al., 1997). According to the social role model, women are seen as “sexual gatekeepers” or passive recipients, whereas men are ascribed to be sexually active, even “oversexed”, taking the role of sexual initiators (Byers, 1996). Based on these notions, historically, refusal assertiveness has been examined as a predictor of sexual victimization almost exclusively in women (see Santos-Iglesias & Sierra, 2010, for a review), but lately also in men (e.g., Krahe et al., 2015). There is broad evidence that high refusal assertiveness serves as a protective factor, contributing to make both women and men less vulnerable to sexual victimization (Krahe et al., 2015; Livingston, Testa, & VanZile-Tamsen, 2007; Walker, Messman-Moore, & Ward, 2011). Regarding initiation assertiveness, generally, the few studies on this topic have looked at sexual behavior and satisfaction (e.g., Greene & Faulkner, 2005; Hald, Kuyper, Adam, & de Wit, 2013; Santos-Iglesias, Sierra, & Vallejo-Medina, 2013), whereas, to my knowledge, there is no study on sexual aggression perpetration. In conceptual terms, there might be a negative link between this construct and perpetration: Higher levels of initiation assertiveness have been linked to greater sexual arousal (Santos-Iglesias et al., 2013) which in turn has been identified as a risk factor of sexual aggression perpetration (see Dudley, 2005, for a review). Correspondingly, persons with high initiation assertiveness may be less likely to control and stop their sexual advances when being sexually rejected. In addition, the boundary between being assertive and being sexually aggressive may be blurred.

Based on previous findings, different indirect pathways from sexual self-esteem to sexual aggression victimization and perpetration may be conceptualized. Given that past research has shown a positive association between sexual self-esteem and sexual assertiveness (Brassard et al., 2015; Ménard & Offman, 2009), sexual assertiveness, an aspect of sexual behavior, may play a mediating role. Considering the two facets of sexual assertiveness, different pathways may be assumed. On the one hand, higher sexual self-esteem may decrease the likelihood of victimization via higher refusal assertiveness. On the other hand, the odds of

perpetration may be increased as higher sexual self-esteem may translate into higher initiation assertiveness. In addition, building on the evidence that high sexual self-esteem contributes to a healthy and less risky sex life, as noted above, it may decrease the probability of sexual aggression victimization and perpetration through less risky sexual behavior.

Furthermore, how assertively women and men behave in sexual situations may be influenced by sexual scripts as well (Santos-Iglesias, Vallejo-Medina, & Sierra, 2014). Although there has been no study that empirically links the two constructs, there might be a negative association between risky sexual scripts and refusal assertiveness, and a positive one with initiation assertiveness. For instance, one study showed that sexually experienced participants reported a higher normative acceptance of risk elements in sexual scripts, such as the use of alcohol, ambiguous communication of sexual intentions, and engagement in casual sexual encounters, than did inexperienced participants (Krahé et al., 2007). At the same time, in another study, sexual experience was positively linked to initiation assertiveness (Morokoff et al., 1997), whereas a negative correlation was found with refusal assertiveness (Testa et al., 2007; Walker et al., 2011). Hence, it may be suggested that more risky sexual scripts may be negatively linked to refusal assertiveness but positively linked to initiation assertiveness.

2.4.2.4. *Religiosity*

Given that *religion* can be understood as a shared belief system playing a central role in shaping social and cultural, but also individual norms and values, it may be conceptualized as a factor at the macro level, as previously described (see Chapter 2.4.1.2.). The *religiosity* of a person, referring, for example, to his/her religious commitment or involvement, can be seen as a factor at the individual level, influencing a person's cognitions and behavior. In particular, there is a large body of literature on the impact of religiosity on sexual behavior, such as the onset of sexual activity and contraceptive use (see Rostosky, Wilcox, Comer Wright, & Randall, 2004, for a review). In reviewing these studies, it is remarkable that despite a plurality of religions and religious beliefs around the world, past research on individual-level religiosity was largely based on Christian samples, pointing to a lack of studies with participants from diverse religious backgrounds.

In spite of obvious differences between Christianity and Islam, studies that included highly religious Christian or Muslim participants revealed somewhat similar findings on sexual attitudes and behavior (Seguino, 2011; Visser, Smith, Richters, & Rissel, 2007). For example, in both religious groups, high religiosity has been linked to more conservative sexual attitudes (Ahrold, Farmer, Trapnell, & Meston, 2011; Duyan & Duyan, 2005), more negative attitudes

toward premarital sex (Visser et al., 2007), and a lower likelihood of contraceptive use (Moreau, Trussel, & Bajos, 2013).

With respect to sexual health, religiosity at an individual level has been conceptualized as both a protective and a risk factor (Smith, 2015; Stulhofer, Soh, Jelaska, Baćak, & Landripet, 2011). Similarly, these different functions may also be assumed in relation to sexual aggression. The protective function of religiosity may be explained in terms of its restrictions on sexual behavior (Rowatt & Schmitt, 2003), contributing, for example, to a later sexual initiation (see Rostosky et al., 2004, for a review) and fewer sexual partners (Edwards, Fehring, Jarrett, & Haglund, 2008; Haglund & Fehring, 2016; Pedersen, 2014). With respect to the constructs included in this research project, there is evidence that high religiosity is linked to less risky sexual scripts (Tomaszewska & Krahé, 2018) and less risky sexual behavior (Smith, 2015), which in turn have been identified as decreasing the odds of sexual aggression victimization and perpetration (D'Abreu & Krahé, 2014, 2016; Krahé et al., 2007; Tomaszewska & Krahé, 2018).

At the same time, high religiosity at an individual level can be conceptualized as “risky” to the extent that it has been linked to less knowledge about sexuality (Stulhofer et al., 2011) and a lower likelihood of using contraceptives (Moreau et al., 2013). In addition, regarding the constructs examined in this research project, religiosity has been negatively linked to a general measure of sexual assertiveness (Curtin, Ward, Merriwether, & Caruthers, 2011) and sexual self-esteem among participants with Catholic upbringing (Abbott, Harris, & Mollen, 2016).

Altogether, religiosity may both indirectly decrease and increase the probability of experiencing and engaging in sexual aggression, depending on the respective mediators.

2.4.2.5. Repeated Sexual Aggression Victimization and Perpetration

An extensive body of research has consistently shown that past experience of sexual victimization, in either childhood or adulthood, is a strong, maybe the strongest, predictor of subsequent victimization (see Ullman & Najdowski, 2011, for a review). In a recent longitudinal study among college students in Germany, Krahé and Berger (2017b) found that sexual victimization since age 14 assessed at the beginning of college (T1) increased the vulnerability to sexual victimization in the following year (T2) as well as 24 months later (T3) in both women and men. Additionally, sexual victimization at T2 predicted sexual victimization at T3, suggesting a cycle of victimization. Despite the importance of past sexual victimization, the underlying processes that contribute to the increased vulnerability to revictimization are not completely understood (Daigle, Fisher, & Cullen, 2008; Ullman & Najdowski, 2011; Van

Bruggen et al., 2006). One key assumption is that factors that increase the vulnerability to sexual victimization for the first time will continue if unchanged and thereby heighten the probability of subsequent victimization (Daigle et al., 2008).

Similar to revictimization, sexual aggression perpetration in the past increases the risk of engaging again in sexual aggression (see Tharp et al., 2013, for a review). Based on the social learning theory (Bandura, 1977), perpetrators of sexual aggression may learn that sexual contact can be obtained through the use of coercion, reducing boundaries and increasing the probability of repeated perpetration (Brousseau, Hébert, & Bergeron, 2012). In line with this reasoning, Zinzow and Thompson (2015) revealed in their four-year longitudinal study a male perpetration rate of 30%, of whom 68% reported sexual aggression perpetration more than once during this time frame. 42% of repeat perpetrators engaged in sexual aggression at two time points, 22% at three time points, 14 % at four time points, and 23% at five or more time points, illustrating the wide scope of repeated sexual aggression. Hence, the consideration of past sexual aggression victimization and perpetration is extremely relevant for the prediction of sexual aggression.

3. The Context of Sexuality in Chile and Turkey

For a comprehensive view of sexual aggression victimization and perpetration in young adults in Chile and Turkey, it is important to take a closer look at cultural norms regarding sexuality, but also at the actual sexual behavior of this generation. This allows for a better understanding of the specific social and cultural contexts which may have an impact on the prevalence of sexual aggression in these countries.

Both the Chilean and Turkish societies have a traditional and conservative approach to sexuality, which is deeply rooted in their religious beliefs and practices (Hatipoğlu Sümer, 2015; Morán Faúndes, 2013; Yaşan et al., 2009). In Chile, a Catholic-majority country, social norms and politics are strongly influenced by the Roman Catholic Church, which particularly affects women (Lehrer et al., 2009). For instance, divorce was blocked by the clergy for a long time until it was legalized in 2004 (Blofield, 2006), making Chile among the last countries worldwide, and the total ban on abortion was just lifted in August 2017 by the Constitutional Tribunal, allowing abortion in three types of cases: when pregnancy results from rape, when the woman's life is at risk, or when the fetus is unviable⁷. By comparison, Turkey is a predominantly Sunni Muslim country in which most aspects of life, in particular sexuality, are regulated by religious rules (Yaşan et al., 2009). Nonetheless, through the society's adherence to both modern Western and traditional Islamic values (Gelbal, Duyan, & Öztürk, 2008; Hatipoğlu Sümer, 2013; Ilkkaracan, 2001), a more liberal approach to sexuality and gender roles is enabled than in other Muslim-majority states.

In both countries, sexuality is still considered a taboo topic, so that even in liberal families, sexuality is not discussed openly (Erenel & Golbasi, 2011; Macintyre, Montero Vega, & Sagbakken, 2015). At the same time, there is a lack of institutionalized sex education that includes not only biological and reproductive aspects of sexuality but also information on emotional dimensions, sexual satisfaction, and sexual violence (Bıkmaz & Güler, 2007; Cok & Gray, 2007; Macintyre et al., 2015). It is noteworthy that in Chile the shortage of adequate sex education has been linked to the recent increase in sexually transmitted diseases (Instituto de Salud Pública, 2016a, 2016b)⁸. Also in Turkey, several studies have shown that college students have an insufficient knowledge about sexuality (e.g., Aras, Orcin, Ozan, & Semin, 2007; Ege, Akin, Kültür Can, & Ariöz, 2011; Yazici, Dolgun, Zengin, & Bayram, 2012) and are likely to

⁷ <https://www.nytimes.com/2017/08/21/world/americas/chile-abortion-court.html>

⁸ <http://www.elmostrador.cl/braga/2017/05/04/aumentan-enfermedades-de-transmision-sexual-en-adolescentes-por-que-no-hay-mas-campanas/>

endorse sexual myths (Ejder Apay, Nagorska, Balci Akpınar, Sis Çelik, & Binkowska-Bury, 2013).

Although there have been sexual liberalizations within each country (Gelbal et al., 2008; González, Molina, Montero, Martínez, & Leyton, 2007), patriarchal values remain powerful in both Chile and Turkey (Barrientos, Silva, Catalan, Gómez, & Longueira, 2010; Gursoy, McCool, Sahinoglu, & Yavuz Genc, 2016). This is also reflected in gender role differences and sexual double standards (Barrientos Delgado & Silva Segovia, 2014; Cok & Gray, 2007; Essizoğlu, Yasan, Yildirim, Gurgen, & Ozkan, 2011): Women are judged more harshly than men when they engage in sexual activity and are often called “sluts” for having multiple partners. In contrast, men are encouraged to be sexually active and earn a positive reputation if they have slept with many women.

While there are many similarities regarding gender roles in both countries, premarital virginity is considered very important in Turkey, particularly for women (Boratav & Çavdar, 2012; Gelbal et al., 2008). For instance, in a sample of Turkish high school students, about two-thirds of the participants disapproved of premarital sex for women, whereas premarital sex for men was widely accepted (Aras, Semin, Gunay, Orcin, & Ozan, 2007). In Chile, even though sexual abstinence until marriage is promoted by the Catholic Church, previous restrictions on premarital sex have been lifted at this point (Barrientos Delgado & Silva Segovia, 2014).

Despite societal restrictions on sexuality, particularly for Turkish women, young adults in both countries have intimate relationships and engage in sexual activity. It has even been shown that the sexual debut of today’s young generation in Chile and Turkey occurs earlier than in past generations (Aras, Orcin, et al., 2007; Dides, Morán, Benavente, & Pérez, 2008), resembling developments in the 1990s in Western, industrialized countries (Bozon & Kontula, 1998). In the most recent national survey of Chilean youth (INJUV, 2017), 71% of male and female participants aged between 15 and 29 years had had coital experience and no gender difference was found. However, men reported a slightly younger age at first intercourse than did women (16.4 years vs. 16.8 years). In Turkey, studies using convenience samples of college students have generally yielded lower rates of coital experience, ranging between 33.2% and 83.1% among men and between 2.8% and 26% among women (Askun & Ataca, 2007; Boratav & Çavdar, 2012; Ege et al., 2011; Essizoğlu et al., 2011; Kuşaslan Avcı, Avni Sahin, & Guvendi, 2012; Varol Saraçoğlu, Erdem, Doğan, & Tokuç, 2014). On average, men had their first sexual intercourse at the age of 17 and women at the age of 18 or 19 (Askun & Ataca, 2007; Erenel & Golbasi, 2011; Varol Saraçoğlu et al., 2014). Altogether, the pattern of sexual activity in Chile resembles findings from Western countries, whereas the sexual onset occurs

later in Turkey, particularly among females (Durex, 2005; Reissing, Andruff, & Wentland, 2012).

4. Aims of the Doctoral Research

4.1. Superordinate Goals

The theoretical part of this thesis aimed to introduce the definition, measurement, and scale of sexual aggression, and to provide an overview of explanations, describing in particular the macro-level approach as well as vulnerability factors of sexual victimization and risk factors of sexual aggression perpetration relevant to this work. At the same time, the context of sexuality in Chile and Turkey was presented, as it gives a better understanding of cultural norms and values which may have an impact on the prevalence of sexual aggression.

Although sexual aggression is considered a serious issue worldwide, as described in the previous sections, most studies on its prevalence and predictors have been conducted in Western countries, whereas generally little research attention has been paid to sexual aggression in other parts of the world, including Chile and Turkey. In consequence, it is unclear whether the vulnerability factors of sexual victimization and risk factors of sexual aggression perpetration identified primarily in Western countries have the same function in societies with a different cultural and religious background.

For this doctoral research project, Chile and Turkey, two countries outside the mainstream of past research, were selected for inclusion because they are similar in regard to their degree of gender equality yet they differ in their predominant religion, both macro-level aspects which are regarded as relevant to sexual aggression. In addition, both countries differ from most Western countries in their lower gender equality and greater strength of religious commitment. This renders them theoretically interesting not only for a single analysis but also for a cross-cultural comparison. Addressing the previously mentioned gaps in the current literature, the present doctoral research had the following superordinate goals:

- (1) systematic review of studies on the prevalence and predictors of sexual aggression victimization and perpetration in Chile and Turkey,
- (2) collection of original data to examine of the prevalence of sexual aggression victimization and perpetration among male and female college students in Chile and Turkey, and
- (3) cross-cultural analysis of predictors of sexual aggression victimization and perpetration based on a two-wave longitudinal design.

For the first goal, the available evidence on the prevalence and predictors of sexual aggression in Chile and Turkey was systematically reviewed. For the second and third goals, a two-wave longitudinal study was conducted among male and female college students in Chile

and Turkey. The examination of the prevalence of sexual aggression is based on the first data wave, whereas the cross-cultural analysis of predictors of sexual aggression is based on both data waves. In the following sections, the specific goals and hypotheses of this doctoral research will be outlined.

4.2. Study Overview and Specific Research Goals

4.2.1. Systematic Review of the Prevalence and Predictors of Sexual Aggression Victimization and Perpetration in Chile and Turkey

At present, comprehensive overviews of studies on sexual aggression in Chile and Turkey critically examining prevalence rates and predictors of sexual aggression victimization and perpetration are not available. Therefore, the major aim of the first two studies was to provide systematic reviews of the prevalence of sexual aggression in Chile (Study 1) and Turkey (Study 2) for the first time, involving a multiple-stage literature search strategy and a clear definition of eligibility criteria. Both studies not only aimed to revise prevalence rates of sexual aggression victimization and perpetration among women and men but also to synthesize victim-perpetrator relationship constellations and characteristics of both parties associated with differences in prevalence rates to provide a clear picture of sexual aggression in these countries.

4.2.2. Prevalence of Sexual Aggression Victimization and Perpetration among College Students in Chile and Turkey

Although important for public health, relatively little is known about young adults' sexuality and, particularly, unwanted sexual experiences in Chile and Turkey. Therefore, the second major aim of this doctoral research was to collect original data to examine the prevalence of sexual aggression victimization and perpetration in a large sample of male and female college students in Chile (Study 3) and Turkey (Study 4). Following a gender-inclusive approach, women and men were considered in both victim and perpetrator roles. In line with recommendations by the literature, as reviewed in Chapter 2, a behaviorally-specific instrument was used to assess sexual aggression victimization and perpetration that distinguished between three coercive strategies (use or threat of physical force, exploitation of the victim's inability to resist, and use of verbal pressure), three victim-perpetrator relationships (current or former partners, friends/acquaintances, and strangers), and four sexual activities (sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual activities).

On the basis of previous studies, it was hypothesized that prevalence rates of sexual victimization would be higher among women than men, whereas prevalence rates of sexual aggression perpetration would be higher among men than women. Furthermore, it was expected that sexual aggression victimization and perpetration would be more commonly reported between current or former partners and friends/acquaintances than between strangers. Above and beyond examining prevalence rates of sexual aggression victimization and perpetration, both studies aimed at investigating the role of alcohol. It was expected that alcohol would be involved in a substantial proportion of sexually aggressive incidents.

4.2.3. Cross-Cultural Analysis of Predictors of Sexual Aggression Victimization and Perpetration

The third major aim of this doctoral research project was to cross-culturally study factors that increase the probability of sexual aggression. So far, no previous study has investigated prospective predictors of sexual aggression victimization and/or perpetration in samples of either Chile or Turkey, or linked evidence from these two countries to each other. To address this shortcoming, a two-wave longitudinal study was conducted among male and female college students in Chile and Turkey for the purpose of examining vulnerability factors of sexual victimization (Study 5) and risk factors of sexual aggression perpetration (Study 6). In this way, it was possible to study whether vulnerability and risk factors identified in past research in Western countries would also be demonstrated in societies with a different cultural and religious background.

The conceptual models for the prediction of experiencing and engaging in sexual aggression are shown in Figures 1 and 2, respectively. They differ in that sexual assertiveness was expected to play a different role in the prediction of sexual victimization (higher refusal assertiveness linked to lower vulnerability to victimization) compared to sexual aggression perpetration (higher initiation assertiveness linked to higher likelihood of perpetration).

With respect to sexual victimization, risky sexual scripts for consensual sexual interactions, risky sexual behavior, sexual self-esteem, refusal assertiveness, and religiosity were assessed at Time 1 (T1) and used as predictors of sexual victimization in the following 12 months, assessed at Time 2 (T2), mediated through sexual victimization at T1 (victimization since the age of consent)⁹. On the basis of theoretical assumptions and empirical evidence as described in Chapter 2, it was expected that more risky sexual scripts would be linked to more risky sexual behavior and lower refusal assertiveness, and thereby increase the vulnerability to

⁹ The age of consent is 14 years in Chile and 15 years in Turkey.

sexual victimization at T1 and T2. For sexual self-esteem, it was hypothesized that low sexual self-esteem would increase the probability of sexual victimization at T1 and T2 via lower refusal assertiveness as well as via more risky sexual behavior. Furthermore, it was predicted that high religiosity would indirectly decrease the probability of sexual victimization at T1 and T2 through less risky sexual scripts and less risky sexual behavior, through less risky sexual scripts and higher refusal assertiveness, and through less risky sexual behavior. At the same time, it was expected that high religiosity would indirectly increase the likelihood of sexual victimization at T1 and T2 via lower sexual self-esteem and more risky sexual behavior, via lower sexual self-esteem and lower refusal assertiveness, via lower sexual self-esteem, and via lower refusal assertiveness.

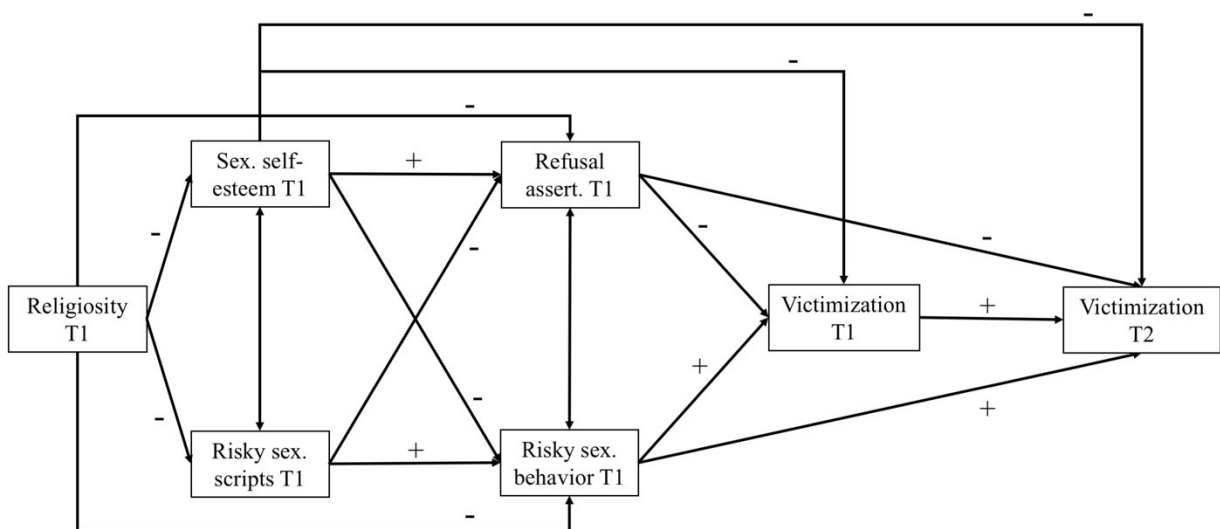


Figure 1. Conceptual model for the prospective prediction of sexual victimization.

To predict sexual aggression perpetration (see Figure 2), risky sexual scripts for consensual sexual interactions, risky sexual behavior, and sexual self-esteem were again included in the model. Because refusal assertiveness has been shown to be a vulnerability factor of sexual victimization in previous research and because there are theoretical assumptions suggesting that initiation assertiveness may be associated with an increased probability of engaging in sexual aggression, this construct has been used for the prediction of sexual aggression perpetration. Thus, risky sexual scripts, risky sexual behavior, sexual self-esteem, initiation assertiveness, and religiosity were measured at T1 to predict sexual aggression perpetration in the following 12 months (T2), mediated through sexual aggression perpetration at T1 (perpetration since the age of consent).

For sexual scripts, it was predicted that more risky sexual scripts would indirectly increase the odds of sexual aggression perpetration at T1 and T2 through more risky sexual behavior as well as through higher initiation assertiveness. For sexual self-esteem, it was expected that high sexual self-esteem would be associated with higher initiation assertiveness, and thereby increase the probability of sexual aggression perpetration at T1 and T2. In addition, it was predicted that high sexual self-esteem would decrease the likelihood of behaving sexually aggressively at T1 and T2 through less risky sexual behavior. For religiosity, again, both risk and protective functions were hypothesized, depending on the mediating variables. It was expected that high religiosity would decrease the likelihood of sexual aggression perpetration at T1 and T2 via less risky sexual scripts and less risky sexual behavior, via less risky sexual scripts and lower initiation assertiveness, via lower sexual self-esteem and lower initiation assertiveness, via less risky sexual behavior, and via lower initiation assertiveness. At the same time, it was hypothesized that high religiosity would increase the probability of sexual aggression perpetration at T1 and T2 through lower sexual self-esteem and more risky sexual behavior, as well as through lower sexual self-esteem. In the analyses of sexual aggression victimization and perpetration, it will be examined whether the proposed pathways hold for the two countries and gender groups.

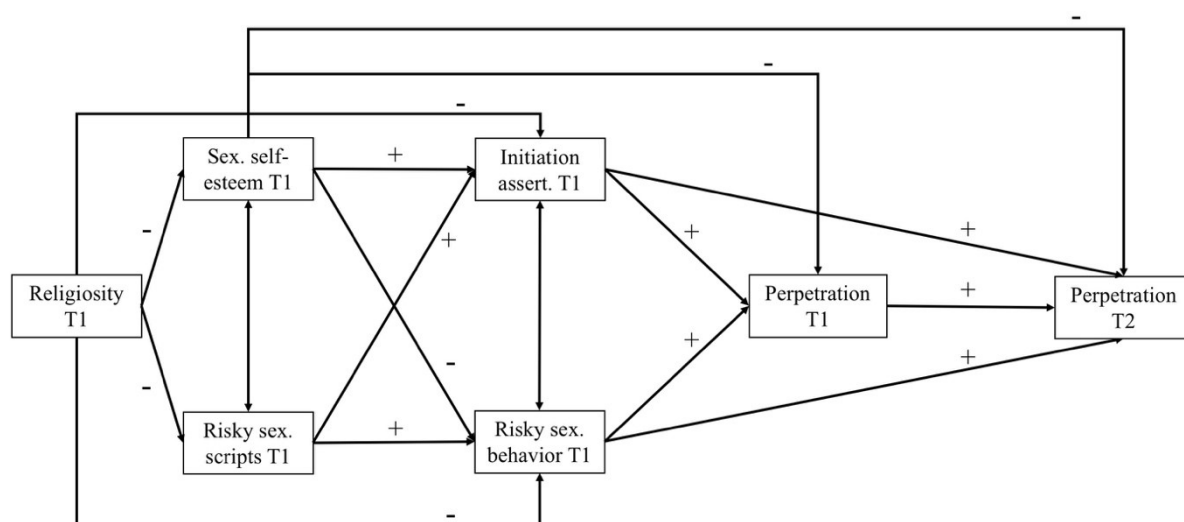


Figure 2. Conceptual model for the prospective prediction of sexual aggression perpetration.

5. Prevalence of Sexual Aggression Victimization and Perpetration in Chile: A Systematic Review¹⁰

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Abstract

Sexual aggression is a major public health issue worldwide, but most knowledge is derived from studies conducted in North America and Western Europe. Little research has been conducted on the prevalence of sexual aggression in developing countries, including Chile. This article presents the first systematic review of the evidence on the prevalence of sexual aggression victimization and perpetration among women and men in Chile. Furthermore, it reports differences in prevalence rates in relation to victim and perpetrator characteristics and victim-perpetrator relationships. A total of $N = 28$ studies were identified by a three-stage literature search, including the screening of academic data bases, publications of Chilean institutions, and reference lists. A great heterogeneity was found for prevalence rates of sexual victimization, ranging between 1.0% and 51.9% for women and 0.4% and 48.0% for men. Only four studies provided perpetration rates, which varied between 0.8% and 26.8% for men and 0.0% and 16.5% for women. No consistent evidence emerged for differences in victimization rates in relation to victims' gender, age, and education. Perpetrators were more likely to be persons known to the victim. Conceptual and methodological differences between the studies are discussed as reasons for the great variability in prevalence rates, and recommendations are provided for a more harmonized and gender-inclusive approach for future research on sexual aggression in Chile.

Key words: Sexual Aggression, Victimization, Perpetration, Chile, Review

Prevalence of Sexual Aggression Victimization and Perpetration in Chile:
A Systematic Review

Sexual aggression is a severe public health threat, associated with negative effects on survivors' mental, physical, and sexual well-being (see Martin, Macy, & Young, 2011, for an overview) and bearing high costs for societies as a whole (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). Despite being recognized as a serious problem worldwide (World Health Organization [WHO], 2013), current knowledge about the prevalence and impact of sexual aggression is largely limited to North America and, increasingly, Europe (see Fedina, Holmes, & Backes, 2016; Krahe, Tomaszewska, Kuypers, & Vanwesenbeeck, 2014, for reviews). Research on sexual aggression in developing countries, including Latin American states, is scarce, and most of the existing studies are available only in the respective country's language, which means that their findings are not easily accessible to the international community of sexual violence researchers. Therefore, the present study provides a systematic review of the available research on prevalence rates of sexual aggression in Chile. The review not only addresses the question of the overall rates of victimization and perpetration but also summarizes the evidence on different forms and contexts of sexual aggression, in particular the relationship between victims and perpetrators.

For the purposes of the present review, sexual aggression is defined as sexual contact without the other person's consent. This focus excludes child sexual abuse, where consent is not an issue. In Chile, the age of consent is 14 years for heterosexual sexual activities, which means that sexual activities with minors below the age of 14 are legally considered child sexual abuse. If sexual contact involves exploiting a relationship of care or taking advantage of the adolescents' mental disturbance, neglect, or sexual inexperience, the age of consent is raised to 18 years ("estupro" legislation; article 363 of the Chilean penal code, Biblioteca Nacional de Chile, 2016).

Reviewing the evidence on prevalence rates of sexual aggression in Chile is of particular interest because during the military dictatorship (1973-1990), there was no systematic research on sexual aggression, and nongovernmental organizations were the only agencies that tried to set up programs to address domestic violence at the community level. Their efforts were limited by a shortage of resources and a general opposition to nongovernmental organizations by the dictatorship (Bacigalupe, 2000b). After Chile's transition from the military dictatorship to a democratic state, the National Women's Service (Servicio Nacional de la Mujer [SERNAM]) was created in 1991, specializing in addressing the problem of domestic violence, followed by

the introduction of a national program to prevent domestic violence in 1992. Several large-scale studies commissioned by SERNAM have been conducted in different regions of Chile since 2001, examining different forms of domestic violence against women, such as physical, psychological, and sexual violence (SERNAM, 2006). Although domestic violence became an important topic on the national agenda after the transition to democracy, human rights violations during the dictatorship were given a higher priority and attracted greater public attention than the problem of domestic violence (Bacigalupe, 2000b). Against this background, we review the available evidence on the prevalence of sexual aggression victimization and perpetration from the age of 14 years onwards in Chile, starting in 1994 when the first study addressing sexual violence was published.

Method

Literature Search

The procedure for the selection of studies is presented in Figure 1. For our comprehensive literature search, we used three approaches: First, we searched published original studies on sexual aggression in Chile in academic data bases, including EBSCO, PsycINFO, Psychology and Behavioral Sciences Collection, Google Scholar, and PubMed, using the following search terms in English and Spanish: Chile AND sexual aggression/violence/assault/abuse, rape, victimization, perpetration, unwanted sex, forced sex, sexual coercion, domestic violence, intimate partner violence, partner violence. Second, we scanned all online publications of Chile's SERNAM, Ministry of Health (Ministerio de Salud, MINSAL), Ministry of the Interior and Public Security (Ministerio del Interior y Seguridad Pública), and National Institute of Youth (Instituto Nacional de la Juventud [INJUV]) for reports on the prevalence of sexual aggression. Third, we checked the reference lists of all records for additional relevant literature. The systematic literature search was conducted to identify records since 1994 when the first epidemiological study investigating domestic violence, including sexual violence, in Chile was published by Larrain Heireman (Bacigalupe, 2000a). Following these three approaches, we identified 306 records after eliminating duplicates. A further 199 records were eliminated after checking the titles and abstracts because they did not address the topic of sexual aggression in Chile. The remaining 107 records were examined in detail with regard to the inclusion and exclusion criteria explained below.

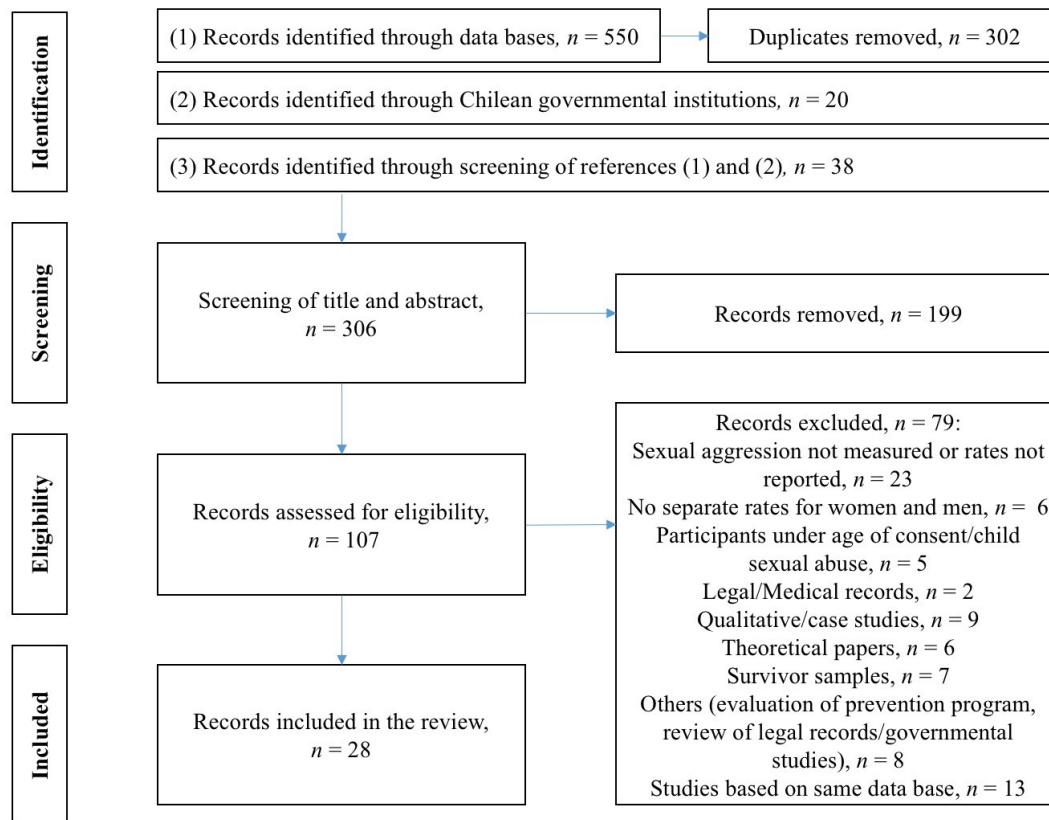


Figure 1. Selection of studies.

Inclusion and Exclusion Criteria

Journal articles, books, book chapters, and research reports were included in the present review if they provided prevalence rates on sexual aggression victimization and/or perpetration for women and men. A total of 23 studies were excluded because they did not measure sexual aggression and/or report prevalence rates. Data sets that included both male and female participants but failed to break down the rates by gender ($n = 6$) were not included because the interpretation of these overall rates was unclear. Because the purpose of this review was to examine the prevalence rates of sexual aggression victimization and perpetration defined by the lack of consent, we did not include studies that examined child sexual abuse ($n = 5$), which is non-consensual by definition. Legal or medical records ($n = 2$), reviews of legal records or governmental studies ($n = 7$), evaluation of prevention programs ($n = 1$), theoretical papers ($n = 6$), qualitative or case studies ($n = 9$), and studies with survivor samples who received counseling for sexual/domestic violence or participated in programs against domestic violence ($n = 7$) were also excluded. Finally, publications which were based on the same data set as

earlier original studies and provided identical information ($n = 13$) were also eliminated (see Figure 1). The publications by Lehrer, Lehrer, Lehrer, and Oyarzún (2007) and Lehrer, Lehrer, and Koss (2013a) were counted as two studies although based on the same data set because one paper reported prevalence rates and correlates for sexual victimization among women, and the other paper reported prevalence rates and correlates for men. Their overview paper (Lehrer, Lehrer, & Koss, 2013b) was not included because it did not present any additional findings.

Studies Included in the Review

We identified a total of 28 studies that met the inclusion criteria. Sexual aggression victimization was examined by all studies but only four provided data on sexual aggression perpetration. More than half of the surveys ($n = 18$) studied sexual aggression in the context of domestic or intimate partner violence. The remaining studies centered on a wide range of research topics, including sexual behavior, traumatic events, and gender equality.

Table 1 presents an overview of the type of publication, language, sample, and geographical scope of the included studies. Research reports in Spanish on behalf of the Chilean government were the most common type of publication ($n = 10$). Only a minority of studies were available in English (eight academic journal articles and one book chapter). A substantial proportion of surveys used representative samples ($n = 11$). In terms of geographical scope, 11 studies presented data at the national or regional level, whereas the remaining studies ($n = 17$) presented data for Santiago or other large Chilean cities.

Table 1

Type of Publication, Sample, and Geographical Scope of Included Records

<i>Classification of Included Records</i>	<i>n</i>
<i>Type of Publication</i>	
Governmental research reports in Spanish	10
Non-governmental or university research reports in Spanish	3
Academic journal articles in English	8
Academic journal articles in Spanish	3
Books in Spanish	3
Book chapter in English	1
<i>Sample</i>	
Representative population samples	11
Community samples	5

Table 1 continued

Type of Publication, Sample, and Geographical Scope of Included Records

<i>Classification of Included Records</i>	<i>n</i>
College student samples	4
High school student samples	2
Lesbian, gay, bisexual, or transgender (LGBT) samples	3
Pregnant or postpartum women	2
Women diagnosed with HIV/AIDS	1
<i>Geographical Scope</i>	
National or regional level	11
Santiago or other large Chilean cities	17

Results

Definitions of Sexual Aggression, Measurement, and Sample Composition

Table 2 presents information about sample composition, definition and measure of sexual aggression victimization and perpetration, as well as the time period covered in each of the 28 included studies. The definitions and operationalization of sexual aggression as well as sample size and age varied substantially across the studies. How this may have affected prevalence rates will be discussed below. The following presentation of the evidence will first summarize the prevalence rates for sexual aggression victimization, followed by perpetration, and finally review the evidence on characteristics of victims and perpetrators and their relationship.

Table 2

Sample Characteristics, Definition, Measurement, and Considered Time Period of Sexual Aggression of Studies Included in the Review

Author(s)	Sample Characteristics	Definition/Measurement	Time Period
Aguayo et al., 2011	$N = 1,618$ (1,192 male), 18 - 59 years Greater Santiago, Greater Valparaíso, Greater Concepción	<i>Female victimization:</i> forced sexual intercourse by male partner <i>Male perpetration:</i> - Forced sexual intercourse - Having sex with a women who is too drunk to consent	Lifetime
Barrientos & Bozon, 2014	$N = 203$ (110 gay men, 93 lesbian women), $M = 24.6$, $SD = 6.6$, 18 - 53 years Santiago	<i>Victimization due to being gay:</i> - Sexual violence - Sexual harassment	Lifetime
Barrientos et al., 2008	$N = 488$ (54% male), 18 - 40+ years 15.8% heterosexuals excluded for victimization analyses	<i>Victimization due to being gay</i>	Lifetime

Table 2 continued

Sample Characteristics, Definition, Measurement, and Considered Time Period of Sexual Aggression of Studies Included in the Review

Author(s)	Sample Characteristics	Definition/Measurement	Time Period
	39.5% gay men, 27.3% lesbian, 11.3% bisexual, 3.9% transgender, 2.0% other, 0.2% no response/not known 92.4% living in Metropolitan Region		
Barrientos-Delgado et al., 2014	$N = 325$ gay men, $M = 30.8$, $SD = 9.8$, 18 - 64 years Arica, Santiago, Valparaíso	Victimization due to being gay	Not specified
Calvin Pérez & Toro Céspedes, 2001	$N = 358$ women with stable partner at least two years (married or live-in partner), not separated for more than one year, $M = 39.7$, $SD = 10.9$, 19 - 60 years San Ramón, Santiago	Victimization by partner in a relationship: violation of sexual rights, sexual blackmailing, criminal sexual violence, violation of reproductive rights	Not specified
Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a	$N = 547$ (44.1% male), 15 - 18 years Santiago	Victimization in a current relationship: - Dating partner physically forced the woman/man to have sexual intercourse against her/his will (<i>physical force</i>) - Sexual intercourse with dating partner when she/he did not want to but she/he was afraid of what her partner might do (<i>afraid</i>) - Dating partner forced her/him to do something sexual that she/he found degrading or humiliating (<i>humiliating</i>) Perpetration in a current relationship: - Participant physically forced a dating partner to have sexual intercourse when she/he did not want to (<i>physical force</i>) - Participant had sexual intercourse with a dating partner when she/he did not want to but she/he was afraid (<i>afraid</i>) - Participant forced a dating partner to do something sexual that she/he found degrading or humiliating (<i>humiliating</i>)	Not specified
Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008b	$N = 373$ (57.0% male), 15 - 18 years Talca	Victimization in a current dating relationship: for definitions see Centro de Estudios de Opinión Ciudadana, Universidad de Talca (2008a)	Not specified
Crempien et al., 2011	$N = 256$ pregnant women, $M = 25$, $SD = 6.65$ Santiago	Victimization: Screening for domestic violence during pregnancy: Forced to engage in sexual acts against the woman's will by current or former partner	Last 12 months
Gobierno de Chile et al., 2000	$N = 5,407$, 18 - 69 years National sample	Victimization: Rape	At first sexual intercourse Lifetime

Table 2 continued

Sample Characteristics, Definition, Measurement, and Considered Time Period of Sexual Aggression of Studies Included in the Review

Author(s)	Sample Characteristics	Definition/Measurement	Time Period
Ilabaca et al., 2015	$N = 1,251$ from Bolivia, Chile, and Spain, $n_{\text{Chile}} = 472$ (41.2% male), 18 - 30 years and above	<i>Victimization:</i> MNSES*: three coercive strategies (physical force, use of alcohol/drugs, verbal pressure) and three victim-perpetrator relationships (partner, friend, stranger)	Lifetime
INJUV, 2010	$N = 7,570$ (50.5% male), 15 - 29 years National sample	<i>Victimization</i> by a partner in a relationship <i>Perpetration:</i> Pressure the partner in a current relationship to have sexual intercourse	Not specified
Larrain Heiremans, 1994	$N = 1,000$ women with stable partner of at least two years (married or live-in partner), not separated for more than one year, $M = 38.2$, $SD = 9.8$, 22 - 55 years Santiago	<i>Victimization:</i> Forced sexual intercourse by partner/husband in a relationship	Not specified
Lehrer et al., 2007	$N = 455$ women, 18 - 30 years, median = 19 years Santiago	<i>Victimization:</i> CTS2*, SES-SFV*: Physically forced sex, verbally forced sex, sex while intoxicated, attempted forced sex through physical force or verbal pressure, other unwanted sexual experiences, such as kisses and touching	Since age 14 Last 12 months
Lehrer et al., 2013a	$N = 466$ men, 17 - 30 years, median = 20 Santiago	<i>Victimization:</i> For definitions see Lehrer et al., 2007	Since age 14
Miner et al., 2011	$N = 261$ socioeconomically vulnerable women, $M = 33$, 18 - 49 years Santiago	<i>Victimization:</i> Modified CTS2*: Forced sexual intercourse by partner/husband	Last 3 months
Ministerio del Interior y Seguridad Pública, 2008	$N = 1,109$ women, 15 - 59 years National sample	<i>Victimization</i> by partner in a relationship and by other persons since age 15	Since age 15
Ministerio del Interior y Seguridad Pública, 2013	$N = 6,004$ women, 15 - 65 years National sample	<i>Victimization</i> by (ex-)partner <i>Sexual offense victimization:</i> Physically forced to engage in sexual intercourse, forced to touch somebody sexually, sexual intercourse through threats, attack of sexual parts of the body, sexual touch without consent, sexual harassment	Since age 15 Last 12 months
Morrison & Orlando, 1999	$N = 310$ women, living with a partner currently or in the last 12 months, 15 - 49 years Santiago	<i>Victimization:</i> Coercing a woman into having sex (threats, blackmail, and physical violence) by a male partner	Last 12 months
Quelopana, 2012	$N = 163$ women at least two weeks postpartum, 18 - 43 years ($SD = 6.5$) Arica	<i>Victimization</i> in a relationship: WAS* - Unwanted sex - Physically hurt when having sex (<i>physically hurt</i>) - Afraid to say no to sex (<i>afraid</i>)	Not specified

Table 2 continued

Sample Characteristics, Definition, Measurement, and Considered Time Period of Sexual Aggression of Studies Included in the Review

Author(s)	Sample Characteristics	Definition/Measurement	Time Period
Schuster et al., 2016a	$N = 1,135$ (250 male), $M_{\text{women}} = 21.8$, $SD_{\text{women}} = 2.59$, $M_{\text{men}} = 22.4$, $SD_{\text{men}} = 2.68$, 18 - 29 years Santiago, Valparaíso	<i>Victimization and perpetration:</i> SAV-S*: Three coercive strategies (physical force, exploitation of an incapacitated state, verbal pressure), three victim-perpetrator relationships (current or former partner, friend/acquaintance, stranger), four sexual activities (sexual touch, attempted sexual intercourse, completed sexual intercourse, other sexual acts, e.g., oral sex)	Since age 14
SERNAM, 2004	$N = 906$ women, 15 - 49 years Coquimbo Region	<i>Victimization:</i> - (Ex-)Partner forced the woman physically to have sexual intercourse against her will (<i>physical force</i>) - Sexual intercourse with (ex-)partner when she did not want to but she was afraid of what her partner might do (<i>afraid</i>) - (Ex-)Partner forced her to do something sexual that she found degrading or humiliating (<i>humiliating</i>)	Last 12 months and before
SERNAM, 2006	$N = 912$ women, 15 - 49 years Aysen Region	<i>Victimization:</i> For definitions see SERNAM (2004)	Last 12 months and before
SERNAM, 2008	$N = 900$ women, 15 - 49 years Antofagasta Region	<i>Victimization:</i> For definitions see SERNAM (2004)	Last 12 months and before
SERNAM, 2009a	$N = 1,009$ women, 15 - 49 years Los Lagos region	<i>Victimization:</i> For definitions see SERNAM (2004)	Last 12 months and before
SERNAM, 2009b	1) $N = 1,358$ women, 15 - 49 years Metropolitan Region 2) $N = 1,363$ women, 15 - 49 years Araucanía Region	<i>Victimization:</i> For definition see SERNAM (2004)	Not specified
Vidal et al., 2004	$N = 100$ women with HIV/Aids, 19 - 62 years 8 regions of Chile	<i>Victimization:</i> Sexual abuse and rape	Lifetime
Vizcarra et al., 2001	$N = 422$ women with at least one child under 18 years, $M = 34$, 15 - 49 years Temuco, medium to low income neighborhood	<i>Victimization:</i> Forced sexual intercourse by partner/husband in a relationship	Not specified
Zlotnick et al., 2006	$N = 2,390$ (1,356 female, 56.7%), 15 - 64 years Concepción, Iquique, and Santiago	<i>Victimization:</i> DIS-III_R* post-traumatic stress disorder question - experience of traumatic event (11 categories, among others rape)	Lifetime

* CTS2 = Conflict Tactics Scales (Straus et al., 2003); DIS-III_R = Diagnostic Interview Schedule version III revised (Robins, Helzer, Croughan, & Ratcliff, 1981); MNSES = Men's Nonconsensual Sexual Experiences Survey (Krahé, Scheinberger-Olwig, & Bieneck, 2003); SAV-S = Sexual Aggression and Victimization Scale (Krahé & Berger, 2013); SES = Sexual Experiences Survey (Koss et al., 2007); WAS = Women Abuse Screen (Champion, Piper, Holden, Korte, & Shain, 2004).

Prevalence of Sexual Aggression Victimization

All 28 studies included in this review yielded prevalence rates of sexual aggression victimization, and all but two included female participants. Fewer than half of the surveys ($n = 12$) included male participants, and only three studies addressed sexual aggression victimization among sexual minorities (gay men, lesbians, bisexual or transgender participants). The prevalence rates for sexual aggression victimization of women and men are presented in Table 3.

Table 3

Prevalence Rates of Sexual Aggression Victimization and Perpetration (see Table 2 for Definitions and Measures)

Author(s)	Prevalence of Victimization/Perpetration: Women	Prevalence of Victimization/Perpetration: Men
Aguayo et al., 2011	<i>Victimization:</i> 8%	<i>Perpetration:</i> 5.3% overall (forced sexual intercourse) - 3.9% forced a current female partner - 2.2% forced a former female partner - 2.3% forced a woman who was not their partner 5.5% had sex with a woman who was too drunk to consent
Barrientos & Bozon, 2014	<i>Victimization:</i> 19.3% sexual harassment 10.1% sexual violence	<i>Victimization:</i> 27.5% sexual harassment 7.1% sexual violence
Barrientos et al., 2008 Barrientos-Delgado et al., 2014	<i>Victimization:</i> 9.0% (lesbian women) -	<i>Victimization:</i> 9.3% (gay men) <i>Victimization:</i> Attempted sexual victimization: 14.7% Sexual victimization: 11.5%
Calvin Pérez & Toro Céspedes, 2001	<i>Victimization:</i> 22.7%	-
Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a	<i>Victimization / Perpetration:</i> - Physical force: 11.1% / 1.3% - Afraid: 28.2% / 1.0% - Humiliating: 6.2% / 0.0%	<i>Victimization / Perpetration:</i> - Physical force: 6.2% / 2.9% - Afraid: 6.2% / 0.8% - Humiliating: 1.7% / 0.8%
Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008b	<i>Victimization:</i> - Physical force: 6.9% - Afraid: 15.0% - Humiliating: 3.8%	<i>Victimization:</i> - Physical force: 6.6% - Afraid: 7.1% - Humiliating: 1.9%
Crempien et al., 2011	<i>Victimization:</i> 3.5%	-
Gobierno de Chile et al., 2000	<i>Victimization:</i> 3.3% at first sexual intercourse 3.9% ever	<i>Victimization:</i> 0.9% at first sexual intercourse 0.9% ever
Ilabaca et al., 2015 INJUV, 2010	<i>Victimization:</i> 28.7% <i>Victimization:</i> 1.0% Participants who had a partner at the time of the survey: 1.7% <i>Perpetration:</i> 1.6%	<i>Victimization:</i> 17.6% <i>Victimization:</i> 0.4% Participants who had a partner at the time of the survey: 2.7% <i>Perpetration:</i> 2.7%
Larrain Heiremans, 1994	<i>Victimization:</i> 4.1% sometimes 1.5% frequently	-
Lehrer et al., 2007	<i>Victimization:</i> 31.2% since age 14	-

Table 3 continued

Prevalence Rates of Sexual Aggression Victimization and Perpetration (see Table 2 for Definitions and Measures)

Author(s)	Prevalence of Victimization/Perpetration: Women	Prevalence of Victimization/Perpetration: Men
	17.2% last 12 months	
Lehrer et al., 2013a	-	<i>Victimization: 20.4%</i>
Miner et al., 2011	<i>Victimization: 5%</i>	-
Ministerio del Interior y Seguridad Pública, 2008	<i>Victimization: 15.6% in a relationship</i> 9.2% of women were sexually offended by another person than her partner since age 15	-
Ministerio del Interior y Seguridad Pública, 2013	<i>Victimization by (ex-)partner: 6.3% overall</i> 1.8% last year <i>Sexual offense victimization: 11.2% since age 15</i> 5.1% past year	-
Morrison & Orlando, 1999	<i>Victimization: 10%</i>	-
Quelopana, 2012	<i>Victimization: 10% overall</i> - Unwanted sex: 6% - Physically hurt: 3% - Afraid: 6%	-
Schuster et al., 2016a	<i>Victimization: 51.9%</i> <i>Perpetration: 16.5%</i>	<i>Victimization: 48.0%</i> <i>Perpetration: 26.8%</i>
SERNAM, 2004	<i>Victimization: 16.6%</i>	-
SERNAM, 2006	<i>Victimization: 10.4%</i>	-
SERNAM, 2008	<i>Victimization: Antofagasta: 14.0%</i> Calama: 9.3% Tocopilla: 12.7% Women who were married or living with a partner at the time of the survey or before: Antofagasta: 15.6% Calama: 10.8% Tocopilla: 15.1%	-
SERNAM, 2009a	<i>Victimization: 28.3%</i> - Physical force: 18.2% - Afraid: 25.6% - Humiliating: 6.8%	-
SERNAM, 2009b	<i>Victimization: 14.9% in Metropolitan Region</i> 14.2% in Araucanía Region	-
Vidal et al., 2004	<i>Victimization: Ever: 30.0% sexual abuse</i> 26.0% rape In a current relationship: 1.0% sexual abuse 1.0% rape	-
Vizcarra et al., 2001	<i>Victimization: 1-2 times: 3.4%</i> frequently: 5.5% during pregnancy: 5.2%	-
Zlotnick et al., 2006	<i>Victimization: 3.8%</i>	<i>Victimization: 1.0%</i>

Prevalence rates for sexual aggression victimization of women and men varied substantially between studies. The lowest prevalence rates were found for sexual victimization by a partner in a sample of adolescents and young adults aged between 15 and 29 years, reported by 1.0% of women and 0.4% of men (INJUV, 2010). The highest rates, 51.9% of women and 48.0% of men, came from a sample of college students who reported sexual victimization since the age of consent across different coercive strategies, relationships, and sexual activities (Schuster, Krahe, Ilabaca Baeza, & Muñoz-Reyes, 2016a).

Few studies used established and validated measures of sexual victimization, such as the revised Conflict Tactics Scales (CTS2; Straus, Hamby, & Warren, 2003), the Sexual Experiences Survey – Short Form Victimization (SES-SFV; Koss et al., 2007), or the Sexual Aggression and Victimization Scale (SAV-S; Krahe & Berger, 2013; Krahe et al., 2015, 2016). These studies revealed substantial prevalence rates for both men and women. In the studies by Lehrer and colleagues (2007, 2013a), who used five items from the CTS2 and SES-SFV, 31.2% of women and 20.4% of men reported sexual victimization since the age of 14. In the study by Schuster et al. (2016a), 51.9% of women and 48.0% of men reported sexual victimization since the age of 14, using a larger set of 36 items from the SAV-S.

Another widely used measure was adapted from the WHO (García-Moreno, Jansen, Ellsberg, Heise, & Watts, 2005). It includes items on sexual intercourse through the use of force, sexual intercourse under threat, and degrading or humiliating sexual acts by an intimate partner. Studies using this measure revealed victimization rates for women from five different regions of Chile, varying between 9.3% (SERNAM, 2008) and 16.6% (SERNAM, 2004). A further study found a higher prevalence rate for women from the Los Lagos region (28.3%; SERNAM, 2009a). The same measure was used to assess dating violence in samples of high school students aged between 15 and 18 years. For high school students in Santiago, victimization rates ranged between 6.2% and 28.2% for women and between 1.7% and 6.2% for men for the different forms of sexual aggression (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a). Lower victimization rates were revealed for female high school students in Talca, varying between 3.8% and 15.0%, whereas male victimization rates were similar to those from Santiago, ranging between 1.9% and 7.1% (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008b). As these figures are based on the same instrument, the differences cannot be attributed to measurement differences between the data sets.

In addition to studies based on regional or student samples, several studies assessed sexual victimization in vulnerable groups. Three studies assessed victimization during pregnancy or used samples of pregnant or postpartum women (Crempien, Rojas, Cumsille, &

Oda, 2011; Quelopana, 2012; Vizcarra, Cortés, Bustos, Alarcón, & Muñoz, 2001). These studies revealed victimization rates between 3.5% (Crempien et al., 2011) and 10% (Quelopana, 2012). However, the rates were based on different time periods. Vizcarra et al. (2001) assessed victimization during pregnancy (5.2% of sexual victimization), whereas Crempien et al. (2011) assessed victimization in the last 12 months, and Quelopana (2012) did not specify a time frame. The prevalence of sexual abuse and rape among women diagnosed with HIV/AIDS was measured by one study (Vidal, Carrasco, & Pascal, 2004), yielding victimization rates of 30.0% and 26.0%, respectively. Three studies focused on participants from low-income neighborhoods (Calvin Pérez & Toro Céspedes, 2001; Miner, Ferrer, Cianelli, Bernales, & Cabieses, 2011; Vizcarra et al., 2001). Again, victimization rates for these groups varied substantially, ranging between 3.4% (Vizcarra et al., 2001) and 22.7% (Calvin Pérez & Toro Céspedes, 2001). Furthermore, three studies provided separate rates of sexual harassment and sexual victimization, although not explicitly defined, due to being perceived as gay (Barrientos & Bozon, 2014; Barrientos et al., 2008; Barrientos-Delgado, Cárdenas-Castro, & Gómez-Ojeda, 2014). Experiences of being sexually harassed because of their sexual orientation was reported by 19.3% of women and 27.5% of men (Barrientos & Bozon, 2014). Between 9.0% and 10.1% of women (Barrientos & Bozon, 2014; Barrientos et al., 2008) and between 7.1% and 11.5% of men reported sexual victimization (Barrientos & Bozon, 2014; Barrientos et al., 2008; Barrientos-Delgado et al., 2014).

In summary, the highest victimization rates were documented for high school and college student samples (e.g., Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a; Ilabaca, Fuertes, & Orgaz, 2015; Lehrer et al., 2013a; Schuster et al., 2016a), gay and lesbian participants (Barrientos & Bozon, 2014), vulnerable groups (e.g., women with HIV/AIDS, Vidal et al., 2004), and women from the Los Lagos region in Southern Chile (SERNAM, 2009a). However, direct comparisons of the prevalence rates are not possible because the studies differed in conceptualization and methodology, as discussed below.

Prevalence of Sexual Aggression Perpetration

Only four of the 28 studies examined sexual aggression perpetration, of which three presented prevalence rates for both men and women (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a; INJUV, 2010; Schuster et al., 2016a), and one presented prevalence rates for men only (Aguayo, Correa, & Cristi, 2011). Again, the studies produced a wide variability in the estimates. For women, the prevalence rates ranged between 0.0% (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a) and 16.5% (Schuster et al.,

2016a). For men, rates ranged between 0.8% (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a) and 26.8% (Schuster et al., 2016a). The prevalence rates for perpetration from these four studies are also presented in Table 3.

Three studies were conducted with adolescents and young adults as a relatively homogeneous age group (Centro de Estudios de Opinión Ciudadana, Universidad de Talca, 2008a; INJUV, 2010; Schuster et al., 2016a) but this did not reduce the great heterogeneity in the prevalence rates (same range as reported above). The study by Schuster et al. (2016a) was the only one that used a validated instrument to assess sexual aggression perpetration (SAV-S) based on a differentiated set of 36 items.

Victim-Perpetrator Relationship and Characteristics of Victims and Perpetrators

Several studies provided prevalence rates for specific victim-perpetrator relationships or examined differences in prevalence rates in relation to characteristics of the victim and the perpetrator. This evidence is summarized in Table 4. Findings for the relationship to the perpetrator reported by victims were consistent across studies in that perpetrators were more likely to be persons known to them (e.g., (ex-)partners, relatives, or friends/acquaintances) than strangers (e.g., Gobierno de Chile, Ministerio de Salud, Comisión Nacional del Sida/ANRS Francia, 2000; Ilabaca et al., 2015; Vidal et al., 2004). Examining the relationship to the victim from the perpetrator perspective, the most common victim category was (ex-)partners, followed by friends/acquaintances, while victims were less commonly reported to have been strangers (Schuster et al., 2016a). This finding is in line with evidence from the victim perspective.

Few studies provided data for characteristics of victims and perpetrators (e.g., gender, age, and level of education), or situational circumstances (e.g., alcohol use) associated with a higher likelihood of sexual aggression victimization or perpetration. Regarding the role of gender, Ilabaca et al. (2015) reported higher prevalence rates of victimization for women than for men, while other surveys did not find gender differences (Barrientos & Bozon, 2014; Schuster et al., 2016a). For perpetration, one study reported gender differences with higher perpetration rates among men than women (Schuster et al., 2016a). With respect to age, findings again differed substantially. One study revealed the highest victimization rate for women in the age bracket of 36 to 55 years (Ministerio del Interior y Seguridad Pública, 2013), whereas another data set reported the highest prevalence rates for sexual victimization in the age bracket of 19 to 39 years (Vidal et al., 2004). Sexual aggression perpetration was not associated with age in the one study that examined age effects (Aguayo et al., 2011). Likewise, there was no consistent picture for level of education. In one study, poorly educated women reported higher

Table 4

Relationship between Victim and Perpetrator and Correlates of Sexual Aggression

Author(s)	Victim-Perpetrator Relationship	Victim Characteristics	Perpetrator Characteristics
Aguayo et al., 2011	-	-	Male perpetration unrelated to age and education, but positively associated with excessive alcohol consumption, inequitable gender norms, violent behavior toward others in childhood, violence between parents, physical and psychological violence at home, child sexual abuse, and physical violence toward partner
Barrientos & Bozon, 2014	-	No significant gender difference in victimization rate	-
Calvin Pérez & Toro Céspedes, 2001	-	Female victims: $M = 41$ years, $SD = 11.5$, 46.9% have primary school education, 51.9% housewives, earnings 14.2% lower compared to non-victims, higher odds of sexual violence when partner drinks alcohol	-
Gobierno de Chile et al., 2000	Perpetrator: 32% known person 28% partner 22% stranger 18% family member	-	-
Ilabaca et al., 2015	Across Bolivia, Chile, and Spain, perpetrator: 46.6% partner 33.1% friend 20.1% stranger	Being female	-
Lehrer et al., 2007	Perpetrator - female victimization: 28% acquaintance 27% steady dating partner 17% stranger 13% casual date 9% friend 7% family member	Female victimization: - Linked to child sexual abuse, low parental education, witnessing domestic violence - Religious participation at age 14 was associated with reduced odds - Reported locations: 31% party, 38% victim or perpetrator's home - Alcohol/drug use for (attempted) rape: 6% victim only, 9% perpetrator only, 56% both	-
Lehrer et al., 2013a	Perpetrator - male victimization: 50.7% friend, other student, or acquaintance 20.9% (ex-) partner	Male victimization: - Associated with child sexual abuse, growing up in a non-intact family (not living with both parents at the age of 14), coital experience	Male victimization since and/or before age 14: 68.0% only female perpetrator 11.5% male and female perpetrator 20.5% only male perpetrator

Table 4 continued

Relationship between Victim and Perpetrator and Correlates of Sexual Aggression

Author(s)	Victim-Perpetrator Relationship	Victim Characteristics	Perpetrator Characteristics
	13.4% date 7.5% stranger 6.0% family member 1.5% teacher	- Living in an urban environment linked to lower odds of sexual victimization - Reported locations: 49.3% party, 29.9% victim or perpetrator's home - Alcohol/drug use: 8.7% victim only, 11.6% perpetrator only, 43.5% both	
Ministerio del Interior y Seguridad Pública, 2013	Perpetrator - female victimization: 45.4% non-relative 29.8% relative 25.5% stranger	Female victimization: - Highest prevalence rate for women with lowest SES*, being the head of household, poorly educated (without education, uncompleted elementary school), age between 36 and 55 years - Analyses for last 12 months: higher prevalence if women lived with partner but were not married Female victims earned less than non-victims and their children were more likely to have disciplinary problems	Female victimization: 39.0% of perpetrators drank alcohol, 11.1% took drugs
Morrison & Orlando, 1999	-		-
Quelopana, 2012	Female victimization by previous partner: 52%	Female victimization: sexual violence correlated positively with psychological violence and physical violence	-
Schuster et al., 2016a	Female victimization - perpetrator: 36.0% (ex-)partner, 32.1% friend/acquaintance, 23.7% stranger Male victimization - perpetrator: 34.8% (ex-)partner, 32.8% friend/acquaintance, 25.2% stranger Female perpetration - victim: 11.7% (ex-)partner, 8.3% friend/acquaintance, 5.1% stranger Male perpetration - victim: 19.6% (ex-)partner, 14.9% friend/acquaintance, 7.6% stranger	- No significant gender difference in overall prevalence rate - Alcohol use by the victim, perpetrator, or both in incidents of sexual victimization: 63.6% of women, 70.0% of men	- Being male - Alcohol use by the victim, perpetrator, or both in incidents of sexual perpetration: 48.6% of women, 53.7% of men
SERNAM, 2004	-	23.4% of women who experienced physical violence reported that after an incident of physical violence they were forced to have sexual intercourse	-

Table 4 continued
Relationship between Victim and Perpetrator and Correlates of Sexual Aggression

Author(s)	Victim-Perpetrator Relationship	Victim Characteristics	Perpetrator Characteristics
SERNAM, 2006	-	24.5% of women who experienced physical violence reported that after an incident of physical violence they were forced to have sexual intercourse	-
SERNAM, 2008	-	16% - 28% of women (depending on city) who experienced physical violence reported that after an incident of physical violence they were forced to have sexual intercourse	-
SERNAM, 2009a	-	40.3% of women who experienced physical violence indicated that during/after a violent incident her partner forced her to have sexual intercourse	-
Vidal et al., 2004	Female sexual abuse - perpetrator: 30% partner 30% relative (not father) 16.7% father 13.3% nonrelative 10% father and partner Female rape - perpetrator: 34.6% partner 26.9% relative (not father) 23.1% stranger/non-relative 11.5% father 3.8% father and partner	<i>Female sexual abuse</i> : Highest rates among women under 40 years, women with high education, and women with high SES* <i>Female rape</i> : Highest rates among women under 40 years, women with low education, and women with medium high SES*	-
Vizcarra et al., 2001	-	Female sexual victimization positively associated with witnessing violence between parents in childhood, lack of paid employment, partner's excessive alcohol consumption, anxious and depressive symptoms	-

* SES = socio-economic status.

rates of sexual victimization (Ministerio del Interior y Seguridad Pública, 2013) whereas in another study, the highest prevalence rates were found among women with both low and high levels of education (Vidal et al., 2004). Level of education was unrelated to sexual aggression perpetration according to the findings of one study (Aguayo et al., 2011).

The role of alcohol in incidents of sexual aggression victimization and perpetration was examined only by a few studies. Three surveys reported that alcohol consumption by the victim, the perpetrator, or both was involved in more than half of the reported incidents of sexual aggression victimization and perpetration (Lehrer et al., 2007, 2013a; Schuster et al., 2016a). Engaging in sexual aggression was further associated with high alcohol consumption in daily life (Aguayo et al., 2011).

Going beyond prevalence information, some studies provided information about consequences of sexual victimization, even though all findings were based on cross-sectional data. Sexual victimization was associated with heightened depressive and/or anxious symptoms (Ilabaca et al., 2015; Quelopana, 2012; Vizcarra et al., 2001), post-traumatic stress symptoms (Zlotnick et al., 2006), and a higher HIV risk (Miner et al., 2011). Moreover, there was evidence of a co-occurrence of experiences of sexual and physical victimization from the studies by SERNAM (2004, 2006, 2008, 2009a), in which a substantial proportion of women (between 16% and 40.3%) reported that they were forced to engage in sexual intercourse in conjunction with physical assault by a current or former partner.

Discussion

The present article provided a systematic review of the evidence on prevalence rates of sexual aggression victimization and perpetration in Chile, with an additional focus on the relationship between victim and perpetrator and their characteristics. By using a three-stage approach for the literature search, we were able to establish a comprehensive data base of 28 studies in Spanish or English for inclusion in the first systematic overview of studies on the prevalence of sexual aggression in Chile.

Across all studies, only two records dated back to the 1990s, and since the 2000s there has been a strong increase in research, particularly focusing on domestic violence against women. However, sexual aggression was a marginal issue in most studies. Despite being a country with a high score on the United Nations Human Development Index (United Nations Development Programme, 2015), in which the economy prospered and democracy was consolidated in the 1990s and 2000s after a long period of dictatorship (1973-1990), the Catholic Church in Chile still has a strong influence on social norms and politics regarding

sexuality. For instance, the Catholic Church was opposed to divorce, which was not legalized until 2004 (Blofield, 2006), and abortion is still illegal regardless of circumstances, including rape (Amnesty International, 2015). There is also a lack of formal sex education providing information beyond biological aspects of reproduction (Macintyre, Montero Vega, & Sagbakken, 2015). This creates a social context in which sexuality and sexual aggression are still regarded as taboo topics, working against the recognition of sexual aggression as an issue requiring research attention and policy responses.

All studies included in the review addressed sexual aggression victimization but only few considered sexual aggression perpetration. This imbalance mirrors the findings from a comprehensive review of prevalence studies in the European Union (Krahé et al., 2014). A great heterogeneity was found in the prevalence rates of both sexual aggression victimization and perpetration, similar to other recent reviews on the prevalence of sexual aggression in Latin America (Abrahams et al., 2014; Winzer, 2016). This variability in prevalence rates may be attributed at least partly to several conceptual and methodological reasons, which undermine the comparability of studies.

First, studies differed in their operational definitions of sexual aggression. For instance, some studies adopted very broad definitions, including the violation of reproductive rights (Calvin Pérez & Toro Céspedes, 2001), while others only considered forced sexual intercourse by a partner (e.g., Larrain Heiremans, 1994; Vizcarra et al., 2001), yet other studies did not provide any definition at all (Barrientos-Delgado et al., 2014; INJUV, 2010).

A second point contributing to the discrepancies in the prevalence rates are the different measurement tools across studies. Established and validated instruments, such as the Conflict Tactics Scales (CTS2; Straus et al., 2003), the Sexual Experiences Survey (SES; Koss et al., 2007), or the Sexual Aggression and Victimization Scale (SAV-S; Krahé & Berger, 2013; Krahé et al., 2015, 2016), were used only by a few studies (e.g., Lehrer et al., 2007, 2013a; Schuster et al., 2016a). Many studies used self-constructed questions with no information on their validity (e.g., Calvin Pérez & Toro Céspedes, 2001; Morrison & Orlando, 1999). Moreover, instruments varied greatly in the number and specificity of items. In particular, instruments with only one or few items undermine the detection of sexual aggression and result in an underestimation of sexual aggression rates (Cook, Gidycz, Koss, & Murphy, 2011).

A third aspect that renders comparisons problematic refers to the different time frames for the assessment of sexual aggression victimization and perpetration, respectively. Some studies addressed sexual aggression in the last three months (Miner et al., 2011) or the last year (e.g., Crempien et al., 2011; Morrison & Orlando, 1999), while others referred to the time spent

with a partner in a relationship, which creates a different time frame for each participant (e.g., SERNAM, 2009b; Vizcarra et al., 2001). Some studies defined the age of 14 (the legal age of consent for heterosexual sexual activities, e.g., Lehrer et al., 2013a; Schuster et al., 2016a), yet others assessed lifetime prevalence rates or did not specify a time frame at all (Barrientos-Delgado et al., 2014; Ilabaca et al., 2015). It is obvious that this heterogeneity in time periods has a critical impact on prevalence rates.

Fourth, a great variability was also found in sample sizes and sampling methods. Several studies addressed sexual aggression on a national or regional level using large samples stratified by region, area, or socio-economic status and controlling for sampling errors (e.g., INJUV, 2010; SERNAM, 2009b), while others relied on convenience samples (e.g., Barrientos & Bozon, 2014; Quelopana, 2012). Consequently, sample sizes ranged from large-scale samples with several thousand participants down to small-scale samples with only 100 participants, which raises the issue of representativeness.

As shown in Table 4, there was a considerable variation not only in prevalence rates for sexual aggression victimization and perpetration but also in victim characteristics associated with differences in prevalence rates. No consistent picture was found for victims' gender, age, and education. Perpetrator characteristics were not systematically addressed by the four studies we identified. With respect to victim-perpetrator relationship, the studies showed that incidents of sexual aggression mainly involved persons known to each other rather than total strangers, which is consistent with a large body of evidence from the international literature (Black et al., 2011; Krahe et al., 2015; Schuster, Krahe, & Toplu-Demirtaş, 2016b).

Conclusions and Directions for Future Research

This review has shown that sexual aggression is a serious social and health issue in Chile, experienced by both men and women. The increase in studies since the 2000s is a great step forward in documenting the scale and raising awareness of sexual aggression victimization. By comparison, studies examining sexual aggression from the perpetrator perspectives are still rare. Only four studies were identified for inclusion in the present review, of which three provided perpetration rates for both men and women.

The review revealed a great heterogeneity in prevalence rates, which was due at least partly to a lack of conceptual and methodological consistency across studies. Likewise, there was no consistent picture of victim and perpetrator characteristics. Therefore, there is a clear need for more harmonized research, which should seek a common conceptual definition of sexual aggression and follow best practice-criteria proposed for the study of sexual aggression

(e.g., Cook et al., 2011; Krahé & Vanwesenbeeck, 2016). In addition, future research should address the methodological limitations discussed above to allow a comparison of prevalence rates across studies and facilitate their interpretation. This task would include the use of validated instruments with a wide range of behaviorally-specific items, setting time frames which separate non-consensual sexual activities from child sex abuse, where consent is not an issue, and recruiting representative samples.

With respect to studying the role of gender in relation to sexual aggression, a substantial proportion of victimization studies included only female participants. However, a large body of research has shown that men can also be victims of sexual aggression (see Peterson, Voller, Polusny, & Murdoch, 2011, for a review). To seek a complete picture of sexual aggression, future studies should acknowledge the fact that both women and men may be victims and perpetrators, adopting a gender-inclusive approach (see Turchik, Hebenstreit, & Judson, 2015, for the outline of a gender-inclusive approach). In addition, the question of how women and men are affected in their health and well-being should be addressed. Given that past evidence is inconsistent, studies should investigate whether the outcomes differ by gender. Some studies have shown more adverse effects on women, while others found more negative effects on men, yet others yielded no gender differences (see Peterson et al., 2011, for a review).

The three studies including gay, lesbian, bisexual, or transgender participants revealed relatively high prevalence rates, although it must be noted that these rates are based on broad and rather unspecific definitions of sexual victimization (sexual victimization because someone perceived them to be gay; Barrientos & Bozon, 2014). The comparatively high victimization rates are consistent with evidence from other countries (see Rothman, Exner, & Baughman, 2011, for a review). A further group that has so far received literally no research attention at all are indigenous peoples, who have been identified at higher risk of sexual victimization in other countries, for example Native Americans in the U.S. (Bachman, Zaykowski, Lanier, Poteyeva, & Kallmyer, 2010; Tjaden & Thoennes, 2000).

Consistent with the international literature (see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004, for a review), some studies in the present review have shown that alcohol consumption was involved in a substantial proportion of incidents of sexual aggression victimization and perpetration. Based on this critical role of alcohol in sexually aggressive incidents and considering the high alcohol consumption and binge drinking rates in Chile (Mason-Jones & Cabieses, 2015; Servicio Nacional para la Prevención y Rehabilitación del Consumo de Drogas y Alcohol, 2015), prevention and education programs should address this point to tackle sexual aggression. Besides the focus on situational circumstances, such as

alcohol use, an important task for future research is also to study individual risk and vulnerability factors for sexual aggression perpetration and victimization, respectively, such as sexual scripts, sexual self-esteem, or pornography use (D'Abreu & Krahe, 2014, 2016; Tomaszewska & Krahe, 2016). These studies should use longitudinal designs to allow the detection of causal predictors of victimization and perpetration. At the same time, more evidence is needed on the role of cultural variables influencing sexual aggression. Past studies suggested tentative explanations, such as traditional gender roles, drinking culture, and the lack of sex education, but the impact of these variables was not systematically studied. The combination of research on risk and vulnerability factors, including cultural variables, would provide a clearer picture of sexual aggression victimization and perpetration and create a basis on which specific prevention programs and policy measures could build for addressing the problem of sexual aggression in Chile.

Summary Table 1

Critical Findings

-
- First systematic review on the prevalence of sexual aggression in Chile including findings from 28 studies
 - Lack of research on sexual aggression, especially data on perpetration
 - High variability in prevalence rates of sexual aggression victimization and perpetration
 - Inconsistent evidence on differences in prevalence as a function of victims' gender, age, and education
 - Perpetrators more likely to be a known to the victim than to be strangers
-

Summary Table 2

Implications for Practice, Policy, and Research

-
- | | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Practice | <ul style="list-style-type: none"> • Reflect the critical role of alcohol in incidents of sexual aggression in rape prevention programs • Include the topic of sexual aggression in sex education curricula |
| Policy | <ul style="list-style-type: none"> • Make sexual aggression and sexual consent a compulsory topic in sexual education curricula |
| Research | <ul style="list-style-type: none"> • Create a harmonized research agenda based on a shared definition of sexual aggression and following best practice-criteria • Address methodological limitations of past research (use of validated measures, specification of time period, use of representative samples) • Adopt an inclusive approach that recognizes minority groups (e.g., lesbian, gay, bisexual, or transgender individuals, indigenous groups) • Study vulnerability and risk factors of sexual aggression victimization and perpetration, respectively, using longitudinal designs • Develop a culture-sensitive approach to study risk and vulnerability factors for sexual aggression |
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6. The Prevalence of Sexual Aggression in Turkey: A Systematic Review¹¹

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Abstract

Although sexual aggression is recognized as a serious problem worldwide, evidence on the prevalence and impact of sexual aggression is based predominantly on studies from Western countries with a Christian or non-religious majority. Little evidence is available from non-Western countries, especially from Muslim societies. The purpose of the present article was to provide a first systematic review of the studies examining the prevalence of sexual aggression in Turkey, including both victimization and perpetration reports from women and men. Additionally, differences in prevalence rates depending on relationship constellations and characteristics of victims and perpetrators were reviewed. By a two-stage literature search, 56 studies were identified for inclusion. All studies examined sexual victimization of women, only four studies included sexual victimization of men. Data on sexual aggression perpetration were extremely limited, with only two studies providing prevalence rates. Prevalence rates of sexual victimization were found to vary greatly, which may be attributed to a lack of methodological and conceptual consistency across studies. Likewise, no consistent picture was revealed for victims' or perpetrators' sociodemographic or situational characteristics associated with differences in prevalence rates. We discuss reasons for the variability in prevalence rates and outline recommendations for future research.

Key words: Sexual Aggression, Victimization, Perpetration, Prevalence, Turkey, Review

The Prevalence of Sexual Aggression in Turkey: A Systematic Review

Sexual aggression is a severe violation of the right to sexual self-determination. It is recognized as a serious problem worldwide (Abrahams et al., 2014; WHO, 2014), entailing numerous adverse effects on survivors' mental, physical, and sexual health (Martin, Macy, & Young, 2011, for an overview). Despite being a global problem, current knowledge about the prevalence and impact of sexual aggression is mostly based on studies conducted in the U.S., or, increasingly, Western Europe (Fedina, Holmes, & Backes, 2016; Krahé, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014, for reviews), involving predominantly Christian countries. Little evidence is available from non-Western countries, particularly from Muslim societies. Additionally, many of the reports from non-Western countries are available only in the language of the respective country, limiting their accessibility for the international community of sexual violence researchers. Hence, the purpose of the present study was to provide a first systematic review of prevalence studies on sexual aggression victimization and perpetration in Turkey. In addition to presenting overall prevalence rates, our aim was to summarize characteristics of victims and perpetrators and their relationship constellations related to differences in prevalence rates to gain a more detailed picture of the current evidence on sexual aggression in Turkey.

Turkey is a transcontinental country between Southeast Europe and Western Asia, and its society is characterized by the simultaneous adherence to traditional Islamic norms and adoption of Western values (Gelbal, Duyan, & Öztürk, 2008). At the same time, it is one of the few countries based on a secular constitution despite having a majority Muslim population. Since the 1980s, there has been an active feminist research agenda, covering gender aspects in different fields of the social sciences and humanities, including history, literature, and equality in different societal domains. However, little research attention has been paid to gender-based violence (Altınay & Arat, 2009). A first comprehensive study on domestic violence against women was conducted in 1993/1994 on behalf of the Family Research Institution of the Turkish Prime Ministry, demonstrating its widespread prevalence (T.C. Başbakanlık Aile Araştırma Kurumu, 1995). After that, little attention has been given to the topic, although several laws strengthening the position of women have been enacted since the late 1990s. With the New Penal Code in 2005, marital rape was criminalized, and the discrimination between married and unmarried women and virgins and non-virgins was abolished (Beşpınar, 2014). Despite such legal improvements, Turkey's society is still confronted with a high femicide rate (Ince Yenilmez & Demir, 2016), attitudes accepting gender inequality (Adana et al., 2011), and at least a partial approval of honor killings (Adana et al., 2011; UNDP, Population Association,

& UNFPA, 2005). Against this background, we sought to provide a first systematic review of available research studies on the prevalence of sexual aggression victimization and perpetration in Turkey.

Method

Selection of Studies

Literature search

A comprehensive literature search was conducted to identify relevant studies. Published studies on sexual aggression were searched in academic data bases, including EBSCO, PsycINFO, PsycArticles, PsycBooks, Psychology and Behavioral Sciences Collection, Psycindex, Google Scholar, and PubMed, using the following search terms in English and Turkish: Turkey AND sexual aggression/violence/assault/abuse, rape, victimization, perpetration, unwanted sex, forced sex, sexual coercion, domestic violence, domestic abuse, intimate partner violence, partner violence. This search yielded 860 records. Reference lists of included records were checked for further studies on the prevalence of sexual aggression, resulting in additional 49 records. After eliminating 133 duplicates (i.e., identical studies included in more than one data base), this two-stage literature search resulted in 776 records. Of these, 655 records were excluded after the screening of titles and abstracts because the topic of sexual aggression in Turkey was not addressed, no prevalence data were reported, or the focus of the study was on child sexual abuse. The remaining 121 records were more closely examined for eligibility, considering the inclusion and exclusion criteria described below.

Inclusion and exclusion criteria

Journal articles, research reports, books, and theses met the criteria for inclusion if they reported prevalence rates for experiencing or engaging in sexual aggression, which was the case for 121 studies. Of these, we excluded studies that only presented combined rates for men and women ($n = 3$), case or intervention studies ($n = 13$), prevalence rates based on legal or medico-legal records ($n = 6$), as well as studies including only survivor or perpetrator samples ($n = 13$). Studies investigating workplace violence ($n = 16$), predominantly in the health care sector, and surveys with special samples, recruited, for example, from psychiatric hospitals or prisons, were excluded due to their low generalizability to the general population ($n = 8$). Reports based on the same data as earlier publications ($n = 2$) were also excluded. Where the same data were reported in two separate publications in two languages (English and Turkish; $n = 3$), only the

English version was included. The full text of one study remained unavailable after contacting the corresponding author and was also excluded from further consideration. This process resulted in the elimination of 65 studies, yielding a final sample of $N = 56$ studies. If studies presented prevalence rates of sexual aggression only for participants who experienced any form of aggression but provided the specific number of participants in the total sample who reported sexual aggression, prevalence rates were calculated on that basis.

Studies Included in the Review

All 56 studies reported prevalence rates of sexual victimization, only two studies provided data for both sexual aggression victimization and perpetration. No study was found that exclusively reported perpetration rates. A substantial proportion of studies examined sexual victimization in the context of domestic violence or intimate partner violence ($n = 43$). The remaining surveys assessed sexual aggression in a broader range of contexts, considering not only partners and family members but also acquaintances and strangers as perpetrators or victims ($n = 13$).

Table 1 summarizes the characteristics of the studies, including the type of publication, publication language, sample, and geographical scope. Most studies were published in academic journals in English ($n = 35$), followed by articles in Turkish ($n = 15$). Only three studies used nationwide representative samples, while more than half of the surveys ($n = 34$) presented data from community samples based on random or convenience sampling methods. In terms of geographical scope, a substantial proportion of studies presented data from the Central Anatolia Region ($n = 19$), followed by data from the Marmara Region ($n = 12$).

Table 1

Type of Publication, Language, Sample, and Geographical Scope of Included Records

<i>Classification of Included Records</i>	<i>n</i>
<i>Type of Publication</i>	
Academic journal articles in English	35
Academic journal articles in Turkish	15
Book in English	1
Research reports in English	3
Research report in Turkish	1
Thesis in Turkish	1

Table 1 continued

Type of Publication, Language, Sample, and Geographical Scope of Included Records

<i>Classification of Included Records</i>	<i>n</i>
<i>Sample</i>	
Nationwide representative sample	3
College student samples	8
Community samples	34
Sample of infertile women	1
Samples of pregnant women	10
<i>Geographical Scope</i>	
Nationwide	3
Aegean Region (e.g., Izmir, Manisa)	7
Black Sea Region (Trabzon)	1
Central Anatolia Region (e.g., Ankara, Sivas)	19
Eastern Anatolia Region (e.g., Van, Kars)	5
Marmara Region (e.g., Istanbul, Edirne)	12
Mediterranean Region (Isparta)	2
Southeastern Anatolia Region (e.g., Gaziantep, Şanlıurfa)	5
Aegean, Marmara, and Eastern Anatolia Region	1
Southeastern and Eastern Anatolia Region	1

Results

Prevalence of Sexual Victimization

Information about sample characteristics, definition and measurement of sexual victimization, and the examined time window for each of the 56 studies is presented in Table 2. Across all studies, a great heterogeneity was found in sample sizes and operationalization of sexual aggression. How this heterogeneity affects the prevalence rates of sexual victimization will be discussed below.

Table 2

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
Ağçay et al., 2015	<i>N</i> = 243 married women, recruited from village clinics or hospitals <i>M</i> age = 36.76, <i>SD</i> = 11.59 Sakarya, Marmara Region	Sexual violence by intimate partner	Not specified
Akar et al., 2010	<i>N</i> = 1,178 married women, recruited from first level medical institutions <i>M</i> age = 38.5, <i>SD</i> = 12.3 Ankara, Central Anatolia	Sexual violence by husband WHO (2005)*	Lifetime, last year
Alan, Dereli Yilmaz, Filiz, & Arioz, 2016a	<i>N</i> = 1,039 married women living with their husbands, recruited from health care centers <i>M</i> age = 33.9, <i>SD</i> = 9.4, above 18 years Konya, Central Anatolia	Sexual violence by husband: forced sexual intercourse, unwanted pregnancy, mocking/scorning the woman's body, mocking the woman's sexuality or her sexual organs	Not specified
Alan et al., 2016b	<i>N</i> = 442 married, pregnant women (last trimester) <i>M</i> age = 26.85, <i>SD</i> = 5.95 Konya, Central Anatolia	Sexual violence by intimate partner: forced sexual intercourse, unwanted pregnancy, mocking the woman's body or sexual organs	During first two trimesters of pregnancy
Altınay & Arat, 2009	<i>N</i> = 1,800 ever-married women 17 – 20 years: 1.4%, 21 – 24 years: 6.6%, 25 – 34 years: 25.7%, 35 – 44 years: 27.3%, 45 – 54 years: 20.8%, 55 – 64 years: 11.3%, 65 years and older: 6.8% nationwide	Forced sexual relations against the woman's will by her husband	Not specified
Aslan et al., 2008	<i>N</i> = 240 female nursing students (1 st and 4 th year) <i>M</i> age = 21.5, <i>SD</i> = 2.0 Ankara, Central Anatolia	Forced sexual intercourse during a current or previous dating relationship	Not specified
Ayrancı et al., 2002	<i>N</i> = 154 women who were pregnant at the time of the survey or in the past <i>M</i> age = 37.8, <i>SD</i> = 12.4, 20 – 82 years Eskişehir, Central Anatolia	Sexual violence by husband: forced sexual intercourse, forced to have sexual intercourse with other persons, rape, mocking the woman's sexuality, unwanted pregnancy	During pregnancy
Bağcıoğlu et al., 2014	<i>N</i> = 317 pregnant women <i>M</i> age = 27.4, <i>SD</i> = 5.9, 18 - 50 years Şanlıurfa, Southeastern Anatolia	Forced sexual activities in the context of domestic violence Modified version of AAS*	During pregnancy
Bener, Sahin, & Sökmen Kılınç, 2010	<i>N</i> = 1,524 women 15 – 60 years and older, 30 - 44 years: 45.8% Ankara, Central Anatolia	Sexual violence against women	Not specified
Bilican Gökkaya, 2011	<i>N</i> = 154 women; staff from university 21 - 30 years: 41.6%, 31 - 40 years: 31.2%, 41 - 50 years: 20.8% Sivas, Central Anatolia	Sexual violence against women	Not specified

Table 2 continued

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
Bulucu & Aymelek Çakıl, 2013	<i>N</i> = 150 married women Bağbaşı, Kırşehir, Central Anatolia	Sexual violence by husband: excessive jealousy and mistrustful behavior, willful ignorance of woman's sexual will, physically forced sexual intercourse, minimization of woman's sexual performance, sexual intercourse as punishment, forced unwanted sexual behaviors, forced sex with other persons	Not specified
Cengiz Özyurt & Deveci, 2011	<i>N</i> = 225 married women 15 - 49 years Manisa, Aegean Region	Sexual violence during marriage WHO (2005)*	Not specified
Deveci et al., 2007	<i>N</i> = 249 pregnant women <i>M</i> age = 26.8, <i>SD</i> = 5.2 Elazığ, Eastern Anatolia	Sexual abuse by intimate partner: forced sex or sexual degradation during marriage and recent pregnancy	During pregnancy, not specified
Elal, Sabol, & Slade, 2004	<i>N</i> = 532 female college students <i>M</i> age = 19.85, <i>SD</i> = 1.72, 17 - 27 years Istanbul, Marmara Region	Unconsented sexual experiences Adaptation of measure by Finkelhor (1979)	Since age 18
Gokler, Arslantas, & Unsal, 2014	<i>N</i> = 800 married women <i>M</i> age = 36.85, <i>SD</i> = 8.44, 15 - 49 years Eskişehir, Central Anatolia	Forced sexual intercourse, sexually degrading/humiliating acts in the context of domestic violence	Last year
Gökulu, Uluocak, & Bilir, 2014	<i>N</i> = 400 women 16 - 21 years: 5.8%, 22 - 30 years: 20.1%, 31 - 40 years: 33.8%, 41 - 50 years: 21.6%, above 50 years: 18.8% Çanakkale, Marmara Region	Sexual violence: rape, sexual harassment, forced sexual intercourse, humiliation of womanhood, forced marriage, sexually offending attitudes, forced pregnancy, molestation/verbal sexual comments, getting disturbing sexual letters or messages, forced to dress open or conservative	Lifetime
Gülçür, 1999	<i>N</i> = 155 women who ever had a spouse or conjugal partner <i>M</i> age = 34.6, 18 - 67 years Ankara, Central Anatolia	Forced sex by partner	Not specified
Güleç Öyekçin et al., 2012	<i>N</i> = 306 married women <i>M</i> age = 37.8, <i>SD</i> = 9.2, 17 - 59 years Edirne, Marmara Region	Sexual violence by an intimate partner	Not specified
Güler, 2010	<i>N</i> = 403 pregnant women Sivas, Central Anatolia	Forced sexual contacts, forced sexual intercourse, extreme jealousy by husband	During pregnancy
Güneş & Karaçam, 2016	<i>N</i> = 320 women who had a vaginal examination <i>M</i> age = 26.32, <i>SD</i> = 5.98, 18 - 50 years	Forced sex by husband	Not specified
Ilkcaracan & Women for Women's Human Rights, 1998	<i>N</i> = 599 women 14 - 75 years 19 settlements in Southeastern and Eastern Anatolia	Rape by husband	Not specified
Ipekten Alaman & Yıldız, 2014	<i>N</i> = 200 married women who applied to gynecology clinics	Sexual violence by husband in current marriage:	Not specified

Table 2 continued

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
	<i>M</i> age = 33.9, <i>SD</i> = 8.4 Eastern Anatolia	physically forced sexual intercourse (e.g., beating), verbal-emotional abuse and degrading sexual acts (e.g., accusation, humiliation), other sexual violent behaviors (e.g., forceful oral-anal sex)	
Izmirli et al., 2014	<i>N</i> = 260 women who were registered at a family physician <i>M</i> age = 35.9, <i>SD</i> = 8.1, 19 – 49 years Isparta, Mediterranean Region	Sexual violence by husband or other family members	Not specified
Kabasakal & Girli, 2012	<i>N</i> = 298 college students (111 male) <i>M</i> age = 21.10, <i>SD</i> = 2.12, 18 - 36 years Izmir, Aegean Region	Forced sexual contacts by dating partner	Not specified
Karaoglu et al., 2006	<i>N</i> = 824 pregnant women <i>M</i> age = 26.5, <i>SD</i> = 0.2 Malatya province, Eastern Anatolia	Physically or verbally forced sex by husband since beginning of pregnancy and since marriage until current pregnancy	Not specified, during pregnancy
Kayı et al., 2000	<i>N</i> = 700 female college students (84.4%) and graduates (15.6%) <i>M</i> age = 21.8, <i>SD</i> = 4.1 Istanbul, Marmara Region	Verbal (e.g., dirty talking, dirty talking at the telephone), visual (e.g., voyeurism, exhibitionism), and physical sexual violence (e.g., rape, harassment)	Not specified
Kelleci, Gölbaşı, Erbaş, & Tuğut, 2009	<i>N</i> = 591 married women, recruited from three public health care units <i>M</i> age = 33.11, <i>SD</i> = 9.36, 16 - 60 years Sivas, Central Anatolia	Sexual violence by husband (e.g., coercion to engage in unwanted sexual activities, sexual mockery)	Not specified
Kısa & Özdemir, 2013	<i>N</i> = 281 married women, recruited from a hospital <i>M</i> age = 48.9, <i>SD</i> = 6.22, 40 - 65 years Şahinbey, Gaziantep, Southeastern Anatolia	Forced sexual intercourse by partner	Not specified
Kıvrak et al., 2015	<i>N</i> = 410 women <i>M</i> age = 31.9, <i>SD</i> = 8.15, 19 – 57 years Kars, Eastern Anatolia	Sexual violence by husband Domestic Violence Scale (Aile içi şiddet ölçeği; Çetiner, 2006)	Not specified
Kocacık & Çağlayandereli, 2009	<i>N</i> = 593 women 15 - 20 years: 2.1%, 21 - 25 years: 1.9%, 26 - 30 years: 39.7%, 31 - 35 years: 9.8%, 36 years and older: 43.4%, no answer: 3.1% Denizli, Aegean Region	Forced sexual intercourse against the woman's will in the context of domestic violence	Not specified
Kocacık & Dogan, 2006	<i>N</i> = 583 women <i>M</i> age = 28.65, <i>SD</i> = 4.64 Sivas province, Central Anatolia	Domestic sexual violence	Not specified
Kocacık et al., 2007	<i>N</i> = 66 women 15 - 20 years: 10.6%, 21 - 25 years: 9.1%, 26 - 30 years: 13.6%, 31 - 35 years: 22.7%, 36 years and older: 43.9% Denizli, Aegean Region	Domestic sexual abuse	Not specified

Table 2 continued

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
Lüleci et al., 2016	<i>N</i> = 297 medical students (129 male) <i>M</i> age = 22, 17 – 26 years Istanbul, Marmara Region	Sexual assault	Not specified
Mayda & Akkuş, 2004	<i>N</i> = 116 married women 19 - 35 years: 62.1%, 36 - 50 years: 27.6%, above 50 years: 10.3% Düzce, Marmara Region	Sexual violence by husband during marriage	Not specified
Naçar, Baykan, Poyrazoğlu, & Çetinkaya, 2009	<i>N</i> = 355 women, recruited from two primary health care centers <i>M</i> age = 34.0, <i>SD</i> = 10.9 Kayseri, Central Anatolia	Domestic sexual violence	Not specified
Nur, 2012	<i>N</i> = 1,844 women <i>M</i> age = 31.3, <i>SD</i> = 9.8, 15 - 49 years Sivas, Central Anatolia	Sexual violence by intimate partner WHO (2005)*	Lifetime, last year
Nur, 2014	<i>N</i> = 1,221 ever-married, ever-pregnant women <i>M</i> age = 35.7, <i>SD</i> = 8.4, 15 - 49 years Sivas, Central Anatolia	Sexual violence by husband WHO (2005)*	During last pregnancy
Özpinar et al., 2015	<i>N</i> = 873 ever-married women <i>M</i> age = 40.2, <i>SD</i> = 12.7, 18 - 85 years Manisa, Aegean Region	Sexual violence by husband/intimate partner WHO (2005)*	Lifetime, last year
Republic of Turkey, Ministry of Family and Social Policies, & Hacettepe University, Institute of Population Studies, 2014	<i>N</i> = 7,462 women 15 - 59 years nationwide	1) Sexual violence by husband or intimate partner WHO, 2005* 2) Sexual violence by non-partner: woman was forced to have sex when she did not want	1) Lifetime, last year 2) Since age 15
Şahin et al., 2010	<i>N</i> = 750 married women <i>M</i> age = 39.25 <i>SD</i> = 13.78, 20 - 80 years Aydın, Edirne, Kocaeli, Manisa, Malatya	Sexual violence in the context of domestic violence	Last year
Şahin, Yetim, & Güleç Öyekçin, 2012	<i>N</i> = 306 married women <i>M</i> age = 37.8, <i>SD</i> = 9.2, 17 - 59 years Edirne, Marmara Region	Sexual violence by husband	Not specified
Schuster et al., 2016b	<i>N</i> = 1,376 college students (490 male) <i>M</i> age = 21.8, <i>SD</i> = 2.36, 18 – 29 years Ankara, Central Anatolia	3 coercive strategies (physical force, exploitation of an incapacitated state, verbal pressure), 3 victim-perpetrator constellations (current or former partner, friend/acquaintance, stranger), 4 sexual activities (sexual touch, attempted sexual intercourse, completed sexual intercourse, other sexual acts, e.g., oral sex) SAV-S*	Since age 15

Table 2 continued

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
Selek et al., 2012	<i>N</i> = 96 female nurses with intimate partner <i>M</i> age = 31.90, <i>SD</i> = 3.98, 22 - 48 years Şanlıurfa, Southeastern Anatolia	Forced sexual activities Modified version of AAS*	Last year
Şimşek et al., 2016	<i>N</i> = 1,211 women, seasonal agricultural workers <i>M</i> age _{unmarried women} = 19.2, <i>SD</i> _{unmarried women} = 4.3 <i>M</i> age _{married women} = 35.6, <i>SD</i> _{unmarried women} = 8.3 Adıyaman, Şanlıurfa, Southeastern Anatolia	Sexual violence; see Turkish Republic, Prime Ministry, Directorate General on the Status of Women (2009)	Lifetime
Tanrıverdi & Şıpkın, 2008	<i>N</i> = 366 women, recruited from primary health care center <i>M</i> age = 38.89, <i>SD</i> = 11.67, 18 - 76 years Çanakkale, Marmara Region	Sexual violence during marriage by husband: excessive jealousy, excessive suspiciousness, willful ignorance of woman's sexual needs, forced sexual intercourse through emotional pressure, minimization of woman's sexual performance, absence of sex used as punishment, rape, sadistic behavior	Not specified
Tokuç, Ekuklu, & Avcioğlu, 2010	<i>N</i> = 300 married women <i>M</i> age = 32.7, <i>SD</i> = 8.5, 16 - 49 years Edirne, Marmara Region	Sexual violence by husband or partner: forced sexual intercourse, unwilling behaviors during sexual activity	Last year
Topbaş et al., 2008	<i>N</i> = 762 women who gave birth <i>M</i> age = 27.1, <i>SD</i> = 5.5 Trabzon, Black Sea Region	Unwanted and forced sexual comments or advances by partner	During pregnancy, 12 months prior to pregnancy
Toplu-Demirtaş et al., 2013	<i>N</i> = 390 dating female college students <i>M</i> age = 21.04, <i>SD</i> = 2.16, 17 - 30 years Ankara, Central Anatolia	Sexual violence by dating partner CTS2*	Last year and before
Toprak Ergöner et al., 2009	<i>N</i> = 214 pregnant women <i>M</i> age = 27.34, <i>SD</i> = 5.09, 18 - 45 years Izmir, Aegean Region	Forced sexual activities in the context of domestic violence AAS*	During pregnancy
Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009	<i>N</i> = 12,795 women 15 - 59 years nationwide	1) Sexual violence by husband or intimate partner WHO, 2005* 2) Sexual violence by non-partner: Woman was forced to have sex when she did not want to or perform a sexual act which she found humiliating or degrading	1) Lifetime, last year 2) Since age 15
Uskun et al., 2012	<i>N</i> = 216 women who gave birth in last 12 months <i>M</i> age = 27.2, <i>SD</i> = 5.6 Isparta, Mediterranean Region	Sexual violence during marriage WHO (2005)*	Not specified
Yanık et al., 2014	<i>N</i> = 900 (174 male, 19.3%) 18 - 28 years: 35.1%, 29 - 39 years: 28.2%, 40 - 50 years: 23.2%, 51 -	Sexual violence	Not specified

Table 2 continued

Sample Composition, Form, Measurement, and Time Period of Sexual Victimization

Author(s)	Sample	Form of victimization and instrument	Time period
Yanikkerem et al., 2006	61 years: 9.7%, above 62 years: 3.8% Kırklareli, Marmara Region <i>N</i> = 217 pregnant women <i>M</i> age = 26.8, <i>SD</i> = 4.8, 17 - 39 years Manisa, Aegean Region	Sexual violence and lack of respect by partner (e.g., my husband forces me to have sex even though I don't want to; my husband respects my thoughts on sexuality)	During pregnancy
Yetim, 2008	<i>N</i> = 306 married women <i>M</i> age = 37.80, <i>SD</i> = 9.18, 17 - 59 years Edirne, Marmara Region	Sexual violence by husband during relationship	Not specified
Yığıtalp et al., 2007	<i>N</i> = 977 final year college students (579 male, 59.3%) 21 - 25 years: 87.7% Diyarbakır, Southeastern Anatolia	Rape, sexual harassment	Last 15 days
Yildizhan et al., 2009	<i>N</i> = 122 infertile women 22 - 39 years Van, Eastern Anatolia	Forced sexual activities in the context of domestic violence Modified version of AAS*	Last year

*AAS = Abuse Assessment Screen (McFarlane et al., 1992); CTS2 = Revised Conflict Tactics Scales (Straus et al., 1996); SAV-S = Sexual Aggression and Victimization Scale (Krahé & Berger, 2013); WHO (2005) = 3-item measure from WHO multi-country study: (1) Has he physically forced you to have sexual intercourse when you did not want to? (2) Did you ever have sexual intercourse when you did not want to because you were afraid of what he might do?, and (3) Has he forced you to do something sexual that you found degrading or humiliating?

Table 3 presents the prevalence rates of sexual victimization for women and men from all the studies included in this review. All surveys provided prevalence rates for women, but only four studies, all based on college student samples, examined sexual victimization of men. In more than half of all included studies ($n = 29$), the reported prevalence rates of sexual victimization for women ranged between 0% and 10.0%. Prevalence rates between 10.1% and 20.0% were documented by 12 studies, rates between 20.1% and 30.0% by two studies, rates between 30.1% and 40.0% by five studies, rates between 50.1% and 60.0% by four studies, a rate between 60.1% and 70.0% by one study, rates between 70.1% and 80.0% by two studies, and finally one study yielded a prevalence rate of 84.0%. These figures show that prevalence rates varied widely across studies. The highest female victimization rate (84.0%) came from a sample of undergraduate and graduate college students who reported any form of verbal, physical, or visual sexual victimization, for which no specific time period was defined (Kayı, Yavuz, & Arıcan, 2000). At the low end, a zero rate of victimization was found in the study by Kabasakal and Girli (2012), as none of their female college students reported sexual victimization, defined as forced sexual contacts by a dating partner. For men, the highest victimization rate (65.5%) again emerged from a study conducted with college students, using

an instrument that combined three different coercive strategies with three different victim-perpetrator constellations, and four sexual activities to assess sexual victimization since the age of 15, which is the age of consent for sexual activities in Turkey (Schuster, Krahe, & Toplu-Demirtaş, 2016b).¹² The lowest rate was a zero rate revealed by a study that considered only rape and sexual harassment in the last 15 days in a sample of final-year college students (Yiğitalp, Ertem, & Özkaynak, 2007). It is noteworthy that both the lowest and the highest prevalence rates for both women and men were found in college student samples.

Table 3

Prevalence of Sexual Victimization among Women and Men

Author(s)	Victimization: Women	Victimization: Men
Ağçay et al., 2015	37.0%	-
Akar et al., 2010	31.3% lifetime, 15.9% last year	-
Alan et al., 2016a	13.5%	-
Alan et al., 2016b	12.7%	-
Altınay & Arat, 2009	14%	-
Aslan et al., 2008	4.8% in a previous relationship 4.1% in a current relationship	-
Ayrancı et al., 2002	3.9%	-
Bağcıoğlu et al., 2014	5.0%	-
Bener et al., 2010	0.5%	-
Bilican Gökkaya, 2011	4.5%	-
Bulucu & Aymelek Çakıl, 2013	64.7%	-
Cengiz Özyurt & Deveci, 2011	4.9%	-
Deveci et al., 2007	10.8% during marriage 4.4% during recent pregnancy	-
Elal et al., 2004	Women with abnormal eating attitudes: 19% Women without abnormal eating attitudes: 17% Difference between the groups was not significant	-
Gokler et al., 2014	6.9%	-
Gökulu et al., 2014	50.8%	-
Gülçür, 1999	15.7%	-
Güleç Öyekçin et al., 2012	6.3%	-

¹² The age of consent describes the age by which a person can legally consent to sexual activities. Child sexual abuse is non-consensual per se, and in Turkey, it is defined as engaging in sexual activity with a person under 15 years. According to the Turkish penal code, sexual intercourse with a minor aged between 15 and 17 years is prosecuted if the perpetrator was in a position of care or if the victim and the perpetrator are forbidden to marry by law. In addition, consensual sex with a person of this age can be prosecuted upon complaint.

Table 3 continued

Prevalence of Sexual Victimization among Women and Men

Author(s)	Victimization: Women	Victimization: Men
Güler, 2010	32.5%	-
Güneş & Karaçam, 2016	8%	-
Ilkkaracan & Women for Women's Human Rights, 1998	51.9% (16.3% often, 35.6% sometimes)	-
Ipekten Alaman & Yıldız, 2014	53%	-
Izmirli et al., 2014	14.6% by husband 0.0% by other family members	-
Kabasakal & Girli, 2012	0%	27.9 (11.6% often, 16.3% sometimes)
Karaoglu et al., 2006	8.5% before pregnancy 9.7% during pregnancy	-
Kayı et al., 2000	84.0%	-
Kelleci et al., 2009	14.9%	-
Kısa & Özdemir, 2013	20.6%	-
Kıvrak et al., 2015	74.6%	-
Kocacık & Çağlayandereli, 2009	5.7%	-
Kocacık & Dogan, 2006	4.1%	-
Kocacık et al., 2007	7.0%	-
Lüleci et al., 2016	11.5%	6.3%
Mayda & Akkuş, 2004	8.6%	-
	27.6% of women report that spouse demanded sex when she did not want	
Naçar et al., 2009	49.9% domestic violence, among them 4.5% reported sexual violence	-
Nur, 2012	6.8% life time 3.7% last year	-
Nur, 2014	6.2%	-
Özpinar et al., 2015	14.9% lifetime 7.9% last year	-
Republic of Turkey, Ministry of Family and Social Policies, & Hacettepe University, Institute of Population Studies, 2014	<i>Ever-married women:</i> 12% lifetime 5% last year <i>All women:</i> 3% by non-partner since age 15	-
Şahin et al., 2010	3.2%	-
Şahin et al., 2012	6.3%	-
Schuster et al., 2016b	77.6%	65.5%
Selek et al., 2012	4.2%	

Table 3 continued
Prevalence of Sexual Victimization among Women and Men

Author(s)	Victimization: Women	Victimization: Men
Şimşek et al., 2016	6.4% <i>Married women: 9.9%</i> <i>Unmarried women: 0.4%</i>	-
Tanrıverdi & Şıpkın, 2008	56.8%	-
Tokuç et al., 2010	21.7% forced sexual activity 3.0% unwilling behaviors during sexual activity	-
Topbaş et al., 2008	5.6% in the last 12 months prior to pregnancy 1.0% during pregnancy	-
Toplu-Demirtaş et al., 2013	31.6% in relationship of one year or less 22.8% in relationship longer than one year	-
Toprak Ergönen et al., 2009	3.4%	-
Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009	15.3% lifetime 7% last year <i>Divorced/separated women: 43.9% lifetime</i> <i>Widowed women: 21.7% lifetime</i> <i>Currently married women: 14.1% lifetime</i> <i>Never-married dating women: 2.2% lifetime</i> <i>All women:</i> 3.3% by non-partner since age 15	-
Uskun et al., 2012	4.8%	-
Yanık et al., 2014	2.9%	-
Yanikkerem et al., 2006	36.4%	-
Yetim, 2008	6.3%	-
Yiğitalp et al., 2007	5.7% (1.2% rape; 4.5% sexual harassment)	0.0%
Yildizhan et al., 2009	2.5%	-

Prevalence of Sexual Aggression Perpetration

Data on the perpetration of sexual aggression are extremely limited and based on only two studies (Aslan, Vefikuluçay, Zeyneloğlu, Erdost, & Temel, 2008; Schuster et al., 2016b). Their sample composition is presented in Table 2, as these studies also examined victimization. Both studies surveyed college students, with one study examining sexual aggression perpetration among women (Aslan et al., 2008), and the other (Schuster et al., 2016b) providing prevalence rates for both men and women. In the Aslan et al. (2008) study, 11.1% of female participants reported having forced a dating partner in a previous relationship to have sexual intercourse. In

the study by Schuster et al. (2016b), 14.2% of women and 28.9% of men reported that they had made a person of the opposite sex engage in non-consensual sexual activities. This study employed a broader measure of perpetration, the SAV-S (Krahé & Berger, 2013), which combines three coercive strategies (use or threat of physical force, exploitation of the other person's inability to resist, verbal pressure) with three victim-perpetrator constellations (former/current partners, friends/acquaintances, strangers) and four sexual activities (sexual touch, attempted and completed sexual intercourse, other sexual acts, such as oral sex) since the age of 15.

Relationship Constellations between Victims and Perpetrators

As noted above, a large proportion of studies examined sexual aggression by an intimate partner (see prevalence rates for victimization in Table 3), while only a few studies expanded the focus to other relationship constellations between perpetrators and victims. Table 4 presents information on the relationship constellations between victims and perpetrators examined by eight studies.

Table 4

Relationship Constellation between Victim and Perpetrator

Authors	Relationship constellation
Izmirli et al., 2014	Husband (only domestic violence)
Kayı et al., 2000	Perpetrator was more likely to be known to the victim than being a total stranger
Republic of Turkey, Ministry of Family and Social Policies, & Hacettepe University, Institute of Population Studies, 2014	<i>Sexual victimization by person other than husband:</i> 56% stranger 17% male relative 13% boyfriend 12% someone from workplace
Schuster et al., 2016b	<i>Female victimization:</i> 61.4% (ex-)partner, 45.2% friend/acquaintance, 39.5% stranger <i>Male victimization:</i> 55.4% (ex-)partner, 39.6% friend/acquaintance, 31.1% stranger <i>Female perpetration:</i> 11.2% (ex-)partner, 4.4% friend/acquaintance, 2.4% stranger <i>Male perpetration:</i> 22.8% (ex-)partner, 13.1% friend/acquaintance, 7.2% stranger
Şimşek et al., 2016	<i>Sexual victimization of married women (only domestic violence):</i> 95.8% husband

Table 4 continued

Relationship Constellation between Victim and Perpetrator

Authors	Relationship constellation
	2.8% sibling
	1.4% father
Toprak Ergöner et al., 2009	Always current or former partner (only domestic violence)
Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009	<i>Sexual victimization by non-partners:</i>
	51.9% stranger
	18.2% male friend
	12.4% male relative
	7.0% someone from work place
	2.2% other
	0.8% father
	0.5% elder brother
	0.3% teacher
	0.2% younger brother
	0.2% female relative
	0.2% mother-in-law
	0.1% father-in-law
Yigitalp et al., 2007	<i>Perpetrator rape:</i>
	0.3% friend, partner
	0.3% stranger
	0.3% friend of father
	0.3% doctor
	<i>Perpetrator sexual harassment:</i>
	1.5% friend, partner
	0.8% stranger
	0.5% brother
	0.3% teacher
	1.5% other person

Three of these studies (Izmirli, Sonmez, & Sezik, 2014; Şimşek, Kara, Ersin, Ökten, & Yıldırımkaaya, 2016; Toprak Ergöner et al., 2009) examined sexual victimization in the context of domestic violence, demonstrating that perpetrators were more likely to be intimate partners than other family members. The two studies on behalf of the Turkish government (Republic of Turkey, Ministry of Family and Social Policies, & Hacettepe University, Institute of Population Studies, 2014; Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009) provided prevalence rates separately for sexual victimization by intimate partners and non-partners. Prevalence rates for sexual victimization by intimate partners were substantially

higher than by non-partners. Both studies showed that perpetrators of non-partner sexual violence were strangers rather than friends, acquaintances, or relatives in more than half of the reported incidents. Finally, three studies included both persons known to each other as well as strangers as perpetrators (Kayı et al., 2000; Schuster et al., 2016b; Yiğitalp et al., 2007), demonstrating that victims were more likely to know their perpetrators than being assaulted by total strangers. One of these studies (Schuster et al., 2016b) also presented data from the perpetrator perspective, showing that in most incidents of sexual aggression, perpetrators assaulted a current or former partner, followed by a friend or acquaintance, whereas assaults on total strangers were reported less frequently.

Characteristics of Victims and Perpetrators

Only a limited number of studies provided information about victims' or perpetrators' socio-demographic (e.g., age, education, income), biographical (e.g., exposure to parental violence in childhood), or situational (e.g., alcohol consumption, gambling) characteristics associated with differences in the prevalence of sexual aggression. Since only one study examined characteristics from the perpetrator perspective (Schuster et al., 2016b), no comparisons can be made. Table 5 presents correlates and characteristics of victims. All studies were cross-sectional; therefore, it is impossible to draw causal conclusions.

Table 5

Characteristics Associated with Sexual Aggression Victimization

Author(s)	Characteristics associated with sexual aggression victimization
Ağçay et al., 2015	- Lower rate of sexual violence during pregnancy
Akar et al., 2010	- 57.6% of women who reported sexual violence were also exposed to physical violence, 84.5% to economic violence, 84.2% to controlling behaviors, 72.5% to emotional violence - No association with victims' age/chronic disease, perpetrators' (husbands') employment condition, and household number - Higher education level of perpetrator (university) and income $\geq 1,000$ YTL were associated with reduced odds for sexual violence - Higher odds for women who were subjected to physical violence by their family of origin, witnessed physical violence between her parents, whose husband witnessed physical violence between his parents and watched violent films/series - 59.8% of women who reported sexual violence did not think that they experienced violence by their husband

Table 5 continued

Characteristics Associated with Sexual Aggression Victimization

Author(s)	Characteristics associated with sexual aggression victimization
Alan et al., 2016b	<ul style="list-style-type: none"> - Higher prevalence rates were associated with exposure to violence prior to pregnancy, unplanned pregnancy, insufficient prenatal care, smoking and alcohol abuse by perpetrator (husband), and husbands' exposure to violence by parents - No association with husbands' education
Altınay & Arat, 2009	<ul style="list-style-type: none"> - 67% of women who reported sexual violence also reported physical violence
Bulucu & Aymelek	<ul style="list-style-type: none"> - No association with victims' or perpetrators' (husbands') education/job, victims' alcohol consumption, family type, and type of marrying
Çakıl, 2013	<ul style="list-style-type: none"> - Positive association with inadequacy of family income and domestic violence in the women's and husbands' family of origin
Deveci et al., 2007	<ul style="list-style-type: none"> - Lower rate among women with high school education or higher compared to women with primary education or lower
Elal et al., 2004	<ul style="list-style-type: none"> - No association with general eating attitudes, but higher scores for bulimia-like attitudes for eating - Women who reported more than three unwanted sexual acts had a higher score on a measure of bulimia-like attitudes toward eating
Gülec Öykecin et al., 2012	<ul style="list-style-type: none"> - Sexual violence positively associated with deterioration of marital relationship and lower social support
Güler, 2010	<ul style="list-style-type: none"> - Positive association with low education level of women and perpetrators (husbands), husbands' unemployment, no health insurance, nuclear family, and not getting regular prenatal care - No significant association with economic situation and unintended pregnancy
Ipekten Alaman & Yıldız, 2014	<ul style="list-style-type: none"> - No significant effect of women's and perpetrators' (husbands') age and education on the prevalence rate of forced sexual intercourse and oral-anal intercourse - Women who reported forced sexual intercourse were less likely to describe marriage relationship and sexual harmony as (very) good - Women with husbands younger than 30 years and bad marriage relationships were more likely to report forced oral-anal intercourse
Izmirli et al., 2014	<ul style="list-style-type: none"> - Positive association with perpetrators' (husbands') problematic alcohol use and gambling, living in a village - No significant effect of women's or husbands' age/age at marriage/education, husbands' employment (employed/unemployed), social insurance (yes/no)
Karaoglu et al., 2006	<ul style="list-style-type: none"> - Higher rate of sexual violence during pregnancy among women who reported different forms of aggression before pregnancy - Lower rate of sexual violence associated with higher level of education of victim and perpetrator (husband), and higher family income - Higher rates among women with unwanted pregnancy, who regularly smoked during pregnancy, and whose husbands were unemployed or low-status workers

Table 5 continued

Characteristics Associated with Sexual Aggression Victimization

Author(s)	Characteristics associated with sexual aggression victimization
Kocacik & Dogan, 2006 Lüleci et al., 2016	<ul style="list-style-type: none"> - No significant effect of family structure (nuclear vs. extended), area of residence (urban vs. rural), women's age and occupation (housewife vs. employed), phase of pregnancy, number of children, duration of marriage - Lower prevalence among women living in nuclear or large families compared to broken families - No gender difference
Nur, 2012	<ul style="list-style-type: none"> - Victims agree more frequently than non-victims with the statement that sexual assault victims should not be medically examined without their permission - Health problems associated with risk for sexual violence - Reduced odds for married women compared to single women
Özpinar et al., 2015	<ul style="list-style-type: none"> - Sexual violence in the last year was positively associated with mental distress and poor health status (self-perceived) - No association with victims' education, employment status (employed vs. unemployed), number of persons in household, and income
Schuster et al., 2016b	<ul style="list-style-type: none"> - Positive association with lower social class, perception of income is less than expenses, perpetrators' (husbands') exposure to parental violence during childhood - No effect of marital status (married vs. widowed/divorced)
Tanrıverdi & Şıpkın, 2008	<ul style="list-style-type: none"> - Being female - Alcohol consumption in incidents of victimization by victim, perpetrator, or both: 67.7% of women, 68.6% of men - No significant effect of education
Topbaş et al., 2008	<ul style="list-style-type: none"> - Lower rate of sexual victimization during pregnancy compared to year before pregnancy
Toplu-Demirtaş et al., 2013	<ul style="list-style-type: none"> - Co-occurrence with psychological and physical victimization for women in relationships shorter than one year
Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009	<ul style="list-style-type: none"> - Increase of lifetime prevalence with age but highest prevalence rate in the last year among women in the age bracket of 15 to 24 years - Higher prevalence rates if women were separated, divorced, or widowed - Lower prevalence rate associated with higher levels of women's education - Women who experienced sexual violence in the last year were less likely to think that sex is a wife's obligation even if a woman does not feel like it
Yetim, 2008	<ul style="list-style-type: none"> - No significant effect of women's and perpetrators' (husbands') age/education/smoking, women's alcohol consumption/work situation, husbands' gambling, length of marriage, family income, number of persons living in the household, number of children, marriage type, social insurance type, and violence against women in husbands' family - Positive association with husbands' alcohol consumption

With respect to victim gender, four studies provided data for sexual victimization of both women and men (Kabasakal & Girli, 2012; Lüleci, Kaya, Aslan, Şenkal, & Çiçek, 2016; Schuster et al., 2016b; Yiğitalp et al., 2007), but only two studies tested gender differences. Schuster et al. (2016b) reported a significantly higher prevalence rate for women, whereas no gender difference was found in the study by Lüleci et al. (2016). Regarding sexual aggression perpetration, more men than women reported that they had made another person engage in non-consensual sexual activities (Schuster et al., 2016b). There was a great variability in the findings concerning a possible link between sexual aggression and age. Some studies did not find that prevalence rates were higher in older participants (e.g., Ipekten Alaman & Yıldız, 2014; Izmirli et al., 2014; Yetim, 2008), whereas the nationwide study on sexual violence against women on behalf of the Turkish government showed the expected increase of the lifetime prevalence rate with age (Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009). In this study, the highest 12-month prevalence rate was found for women in the age bracket of 15 to 24 years. With respect to education, findings again differed substantially. For female sexual victimization, some studies did not find differences in relation to the victim's or perpetrator's level of education (e.g., Ipekten Alaman & Yıldız, 2014; Izmirli et al., 2014), while other surveys yielded a negative association between the prevalence of sexual victimization and level of education of both the victim and the perpetrator (e.g., Deveci et al., 2007; Karaoglu et al., 2006). Additionally, some studies reported a lower prevalence of sexual victimization during pregnancy compared to the time before pregnancy (Ağçay, Yıldız Inanici, Çolak, & Inanici, 2015; Topbaş et al., 2008), while another study revealed no significant difference in relation to pregnancy status in the prevalence rate for the total sample and a higher rate for women who reported different forms of aggression before pregnancy (Karaoglu et al., 2006).

A more consistent picture was found for income. Most studies showed that higher income was associated with lower prevalence rates of sexual victimization (e.g., Akar et al., 2010; Bulucu & Aymelek Çakıl, 2013; Karaoglu et al., 2006), although one study did not find a significant association between income and victimization (Nur, 2012). Findings also differed regarding employment status. For instance, the employment status of the intimate partner had no effect on female sexual victimization in two studies (Akar et al., 2010; Izmirli et al., 2014), whereas the intimate partners' unemployment or low-status employment was associated with a higher likelihood of female sexual victimization in other studies (Güler, 2010; Karaoglu et al., 2006).

Regarding biographical factors associated with a higher probability of female sexual victimization, studies have consistently shown that suffering or witnessing physical or domestic violence in the family of origin on the part of either the victim or the perpetrator was associated with a higher likelihood of sexual victimization (e.g., Akar et al., 2010; Alan et al., 2016b; Bulucu & Aymelek Çakıl, 2013). With respect to the role of alcohol, women's consumption of alcohol had no effect on their vulnerability to sexual victimization, as reported by two studies (Bulucu & Aymelek Çakıl, 2013; Yetim, 2008). However, alcohol use by the perpetrator was associated with a higher likelihood of female sexual victimization by an intimate partner (Alan et al., 2016b; Izmirli et al., 2014). Additionally, one study demonstrated that alcohol use by the victim and/or the perpetrator was involved in more than half of all victimization or perpetration incidents (Schuster et al., 2016b). Finally, two studies examined the role of gambling, which still persists despite having been banned in Turkey by law. In one study, having a partner who engaged in gambling was associated with an increased likelihood of sexual victimization (Izmirli et al., 2014), yet another study did not find a significant association (Yetim, 2008).

Few studies went beyond the analysis of prevalence rates and examined outcomes of sexual victimization. In line with evidence from the Western literature (Martin et al., 2011, for an overview), these studies demonstrated adverse effects on the victims' psychological and physical wellbeing, such as higher levels of anxiety (Gülçür, 1999), posttraumatic stress disorder (Güneş & Karaçam, 2016), and mental distress (Nur, 2012). Furthermore, a substantial proportion of victims felt helpless (Kayı et al., 2000), unhappy (Ipekten Alaman & Yıldız, 2014), or distressed and upset (Topbaş et al., 2008).

Discussion

The purpose of the present article was to provide a systematic review of the prevalence of sexual aggression in Turkey with an additional focus on relationship constellations and characteristics of victims and perpetrators. We identified a total of 56 studies for inclusion based on a predefined set of eligibility criteria. Previous studies limited their scope to domestic or intimate partner violence against women (e.g., Guvenc, Akyuz, & Cesario, 2014; Keser Özcan, Günaydın, & Çitil, 2016). Because this study examined both sexual aggression victimization and perpetration among women and men, it is the first comprehensive review of sexual aggression victimization and perpetration in Turkey.

All 56 studies measured sexual victimization experiences of women. By comparison, sexual victimization of men was examined by only four studies, all of which were based on samples of college students who are generally more liberal in their attitudes than the general

population and, therefore, may be more open to take part in studies of such a sensitive nature. Possible obstacles to recruiting men for studies on sexual victimization in Turkey may be related to traditional gender roles, patriarchal family patterns and values, as well as the adherence to honor concerns, which define the social image and reputation of men and their families as core values of the society (Adana et al., 2011; Kocacık, Kutlar, & Erselcan, 2007; Uskul, Cross, Sunbay, Gercek-Swing, & Ataca, 2012). Against this background, reporting to have been made to engage in unwanted sexual activities, especially by a woman, may threaten men's reputation. The gap between studies on sexual victimization of women as compared to men may also reflect the attention to and awareness of the serious problem of gender-based violence in Turkey (Keser Özcan et al., 2016; Kulczycki & Windle, 2011, for reviews) and the unequal status of women and men (Yüksel-Kaptanoğlu, Türkyılmaz, & Heise, 2012). This may also explain why data on sexual aggression perpetration were limited to only two studies (Aslan et al., 2008; Schuster et al., 2016b), both based on college student samples. Given that sexuality is a strong taboo topic in Turkish society (Aras, Orcin, Ozan, & Semin, 2007; Erenel & Golbasi, 2011) and sexual aggression perpetration is a socially disapproved behavior, there may be serious hurdles to collecting perpetration data, particularly in non-student samples.

The present review revealed a wide range in the prevalence rates of sexual victimization across studies, similar to other reviews on the prevalence of sexual aggression (e.g., Krahé et al., 2014; Schuster & Krahé, 2017), even if they used similar measurement tools or samples. This heterogeneity may be attributed, at least partly, to conceptual or methodological differences. First, studies were based on different definitions of forms of sexual aggression. Some studies applied very broad definitions, including, for example, excessive jealousy (e.g., Bulucu & Aymelek Çakıl, 2013; Güneş & Karaçam, 2016; Tanrıverdi & Şıpkın, 2008), whereas other studies adopted very narrow definitions, considering, for instance, only forced sexual intercourse (e.g., Aslan et al., 2008; Gülçür, 1999; Güneş & Karaçam, 2016), yet other surveys did not provide any definition at all (e.g., Ağçay et al., 2015; Bilican Gökkaya, 2011; Güleç Öyekçin, Yetim, & Şahin, 2012). Second, time periods for the assessment of sexual aggression differed substantially across studies, ranging between the last 15 days (Yiğitalp et al., 2007) and no specification at all (Yanık, Hanbaba, Soygür, Ayaltı, & Doğan, 2014). Since numerous studies examined intimate partner violence, sexual aggression was measured for the length of the relationship. This results in different time periods for each participant, rendering comparisons problematic. A third point which undermines comparability across studies refers to the different instruments used to measure sexual aggression. Only two studies (Schuster et al., 2016b; Toplu-Demirtaş et al., 2013) used internationally established and validated

instruments, such as the Revised Conflict Tactics Scales (Straus et al., 1996) or the Sexual Aggression and Victimization Scale (Krahé & Berger, 2013; Krahé et al., 2015, 2016). By contrast, a substantial proportion of studies was based on self-constructed measurement tools for which no information on their validity is available (e.g., Ağçay et al., 2015; Alan et al., 2016b). Additionally, these measures differed in the number of items and level of specificity, which has a direct impact on the detection of sexual aggression (Cook, Gidycz, Koss, & Murphy, 2011). Fourth, a great heterogeneity was also found in sample sizes, varying between small-scale samples with fewer than 100 participants (Kocacık et al., 2007) and nationwide studies with more than 10,000 participants (Turkish Republic, Prime Ministry, Directorate General on the Status of Women, 2009). All these conceptual and methodological differences across studies contribute to the great variability of the prevalence rates.

With respect to the evidence on the relationship constellations between victims and perpetrators, the majority of studies examined sexual victimization by an intimate partner or family member. Studies including non-family members as perpetrators found that victims were more likely to know their perpetrator than being assaulted by a total stranger. Strangers were also less commonly reported than current or former partners and friends or acquaintances in the one study that examined the relationship constellation from the perpetrator perspective (Schuster et al., 2016b). The results for the relationship constellation of both sexual victimization and perpetration are also consistent with international evidence (Breiding et al., 2014; Krahé et al., 2015; Schuster, Krahé, Baeza Ilabaca, & Muñoz-Reyes, 2016a).

Findings regarding sociodemographic and situational factors associated with a higher likelihood of sexual victimization differed substantially across studies. No consistent picture was found for the victims' or perpetrators' gender, age, education, or the role of alcohol. However, studies have shown consistently that biographical factors, such as suffering or witnessing physical or domestic violence in the family of origin, were linked to a higher likelihood of sexual victimization.

Conclusions and Directions for Future Research

Sexual aggression in Turkey, in particular against women, has attracted increased attention of both research and media during the last years, as reflected in a large increase in published studies since 2010. Despite the variability in prevalence rates produced by these studies, the present review has shown that sexual aggression is a serious problem in Turkey, affecting both women and men. The findings concerning sociodemographic and situational factors associated with a higher likelihood of sexual victimization did not present a consistent picture. This calls

for a more harmonized approach to the study of sexual aggression to allow comparisons of prevalence rates and characteristics of victims and perpetrators across studies. The first task for future research is therefore to develop a shared conceptual definition of sexual aggression to create a common basis for sexual violence researchers. Second, studies should follow criteria of good practice (Krahé & Vanwesenbeeck, 2016), considering the sensitive nature of this topic. Third, the methodological limitations, as discussed above, should be adequately addressed by applying internationally established, validated instruments for the measurement of sexual aggression victimization and perpetration, separating non-consensual sexual activities and childhood sexual abuse, and seeking nationwide representative samples.

It is noteworthy that a large body of studies included in the present review addressed only female sexual victimization by a male partner. However, numerous studies have shown that men may also experience sexual victimization, by both women and other men, and women may also be perpetrators of sexual aggression (see Fisher & Pina, 2013; Peterson, Voller, Polusny, & Murdoch, 2011, for reviews), challenging traditional stereotypes of sexual aggression. To acknowledge male victims and female perpetrators, future research should adopt a gender-inclusive approach, as outlined by Turchik, Hebenstreit, and Judson (2016).

Not a single study addressed sexual aggression among lesbian, gay, and bisexual (LGB) groups, although they have been identified as being particularly vulnerable to sexual victimization by surveys from other countries (see Rothman, Exner, & Baughman, 2011, for a review). Considering that LGB individuals are highly stigmatized in the Turkish society and negative attitudes toward lesbians and gays are widespread (Gelbal & Duyan, 2006), future research should recognize the sexual assault experiences by sexual minorities. A further issue that needs to be acknowledged and addressed is sexual aggression against and among refugees, particularly in the current situation in Turkey with almost three million registered Syrian refugees (UNHCR, 2015).

Finally, no consistent picture could be established regarding factors associated with differences in the prevalence of sexual victimization, underlining the need for studies examining vulnerability and risk factors for sexual aggression victimization and perpetration. These studies should adopt longitudinal designs to identify cause-effect relationships, and also consider cultural factors which may have an impact on sexual aggression in Turkish society. To date, cultural factors have not been examined systematically and only tentative explanations, such as insufficient sex education and gender inequality, are suggested by prior studies. Studies including these aspects may help to identify culture-dependent risk elements, creating a basis for adequate prevention and intervention programs to tackle sexual aggression in Turkey.

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7. Sexual Aggression Victimization and Perpetration among Male and Female College Students in Chile¹³

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Abstract

Evidence on the prevalence of sexual aggression among college students is primarily based on studies from Western countries. In Chile, a South American country strongly influenced by the Catholic Church, little research on sexual aggression among college students is available. Therefore, the purpose of the present study was to examine the prevalence of sexual aggression victimization and perpetration since the age of 14 (the legal age of consent) in a sample of male and female students aged between 18 and 29 years from five Chilean universities ($N = 1,135$), to consider possible gender differences, and to study the extent to which alcohol was involved in the reported incidents of perpetration and victimization. Sexual aggression victimization and perpetration was measured with a Chilean Spanish version of the Sexual Aggression and Victimization Scale (SAV-S), which includes three coercive strategies (use or threat of physical force, exploitation of an incapacitated state, and verbal pressure), three victim-perpetrator constellations (current or former partners, friends/acquaintances, and strangers), and four sexual acts (sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual acts, such as oral sex). Overall, 51.9% of women and 48.0% of men reported at least one incident of sexual victimization, and 26.8% of men and 16.5% of women reported at least one incident of sexual aggression perpetration since the age of 14. For victimization, only few gender differences were found, but significantly more men than women reported sexual aggression perpetration. A large proportion of perpetrators also reported victimization experiences. Regarding victim-perpetrator relationship, sexual aggression victimization and perpetration were more common between persons who knew each other than between strangers. Alcohol use by the perpetrator, victim, or both was involved in many incidents of sexual aggression victimization and perpetration, particularly among strangers. The present data are the first to provide a systematic and detailed picture of sexual aggression among college students in Chile, including victimization and perpetration reports by both men and women and confirming the critical role of alcohol established in past research from Western countries.

Key words: Sexual Aggression, Victimization, Perpetration, Prevalence, Coercive Strategies, Relationship Constellations, Alcohol, Chile

Sexual Aggression Victimization and Perpetration
among Male and Female College Students in Chile

Being forced to engage in unwanted sexual activities is a serious violation of the right to sexual self-determination. It is a major problem worldwide (WHO, 2013), associated with a wide range of negative effects on survivors' wellbeing (Choudhary, Smith, & Bossarte, 2012; Martin, Macy, & Young, 2011). Studies demonstrating the high prevalence of sexual aggression as reported by victims and perpetrators have been conducted primarily in Western countries (Fisher, Daigle, & Cullen, 2010; Krahe, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014, for reviews). By comparison, little research is available on the problem of sexual aggression in developing countries. In Chile, one of the South American countries with the highest human development index (United Nations Development Programme, 2015), research on sexual aggression victimization and perpetration is notably limited. To address this gap, the primary purpose of the present study was to investigate the prevalence of experiencing and engaging in sexual aggression in a sample of female and male college students in Chile. Additionally, the present study examined the role of alcohol in sexual aggression victimization and perpetration. We defined sexual aggression 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* (Krahe et al., 2015), considering different coercive strategies, victim-perpetrator relationship constellations, and sexual acts.

Since Koss, Gidycz, and Wisniewski's (1987) groundbreaking research on sexual aggression among college students in the 1980s, many large-scale studies, primarily from the United States, revealed high prevalence rates of sexual aggression. For instance, in the Campus Climate Survey on Sexual Assault and Sexual Misconduct that included 27 higher education institutions in the United States, 18.1% of female students and 4.2% of male students reported the experience of completed penetration or sexual touch through the use of physical force or incapacitation since entering college (Cantor et al., 2015). In line with this finding, a large body of research has shown higher victimization rates for women than for men (e.g., Black et al., 2011; Williams et al., 2014). At the same time, evidence is accumulating that men also experience sexual victimization to a substantial degree (e.g., French, Tilghman, & Malebranche, 2015; Krahe et al., 2015).

Fewer studies have studied the prevalence of reported perpetration of sexually aggressive behavior, especially in community or college student samples. Recent studies from the U.S. found that about 30% of male college students reported some form of sexually aggressive behavior since adolescence (Dardis, Murphy, Bill, & Gidycz, 2016; Swartout,

Swartout, Brennan, & White, 2015). In a recent German study, the overall prevalence of male perpetration was lower, but still substantial with 13.2% (Krahé & Berger, 2013). By comparison, perpetration rates are generally lower for women than for men (e.g., D'Abreu, Krahé, & Bazon, 2013; Struckman-Johnson, 1988; Tomaszewska & Krahé, 2015), but it is clear that sexually aggressive behavior is not limited to males. Comparing prevalence rates of both sexual aggression perpetration and victimization, many studies found a substantial gap, with higher prevalence rates for sexual victimization (Kolivas & Gross, 2007, for a review).

Although the majority of large-scale studies focused on female victims and male perpetrators (e.g., Abrahams et al., 2014; WHO, 2013), there is evidence to show that men may also be victims of sexual aggression (Peterson, Voller, Polusny, & Murdoch, 2011, for a review) and women may also be perpetrators (Fisher & Pina, 2013, for a review). In a cross-cultural study conducted in ten European countries, college men and women reported sexual aggression victimization and perpetration since the legal age of consent in the respective country (Krahé et al., 2015). The overall rates for sexual victimization were 32.2% for women and 27.1% for men. With respect to the perpetration of sexual aggression, the overall rates were 16.3% for men and 5.0% for women across all countries. These results challenge traditional stereotypes about sexual aggression with women as victims and men as perpetrators. Therefore, a gender-inclusive approach to sexual aggression is necessary to capture all facets of sexual aggression and provide support to both female and male victims (Turchik, Hebenstreit, & Judson, 2016).

Regarding the relationship constellation between victim and perpetrator, studies found consistently that sexual aggression more often involves victims and perpetrators known to each other than happening between complete strangers (Black et al., 2011; Lehrer, Lehrer, & Koss, 2013a). With respect to situational facilitators of sexual aggression, alcohol has been found to be involved in about half of all incidents of sexual assault (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004, for a review), especially when victim and perpetrator are not well-acquainted (Abbey, Clinton-Sherrod, McAuslan, Zawacki, & Buck, 2003; Ullman, Karabatsos, & Koss, 1999). Alcohol increases the risk of both perpetration and victimization through its pharmacological effects by impairing information processing, such as attention to norms prohibiting the use of coercion or attention to danger signals. Alcohol also increases the risk of sexual aggression through its psychological effects, such as the activation of stereotyped beliefs about drinking alcohol as a cue indicating sexual availability and the risk of men overestimating women's sexual interest (Abbey et al., 2004).

Sexual Aggression Among College Students in Chile

As noted above, there is a large body of research on sexual aggression in Western countries, highlighting its prevalence and costs for individuals and society. By contrast, data from Chile on sexual aggression victimization and perpetration, particularly among young adults, is limited. In Chile, the Catholic Church is a strong source of influence on social norms and public policy, in particular referring to sexuality (Lehrer, Lehrer, & Krauss, 2009; Morán Faúndes, 2013). For example, abortion is illegal under any circumstances, including incest or rape (Amnesty International, 2015), and divorce, which was not legalized until 2004, is opposed by the Catholic Church (Blofield, 2006). Despite this strong influence of the Catholic Church, norms and sexual life style of young adults have been changing over the last decades, which is reflected, for instance, in a younger age at sexual initiation (INJUV, 2013) and a higher number of sexual partners among women (González, Molina, Montero, Martínez, & Leyton, 2007). These changes in sexual lifestyle make the study of sexual aggression perpetration and victimization in Chile even more critical.

To date, there are three published data sets on sexual assault victimization among college students in Chile (Ilabaca, Fuertes, & Orgaz, 2015; Lehrer et al., 2013a; Maida et al., 2003), which produced similar prevalence rates. In a study conducted in Northern Chile, 28.7% of female and 17.6% of male participants reported at least one experience of sexual victimization (Ilabaca et al., 2015). In a survey on college students' wellbeing in Santiago, 31% of women and 20% of men reported that they had been made to engage in unwanted sexual activities since the age of 14 (Lehrer et al., 2013a). The third study with fifth-year medical students from Santiago revealed a victimization rate during medical school of 26.4% across both gender groups (separate rates for men and women were not reported; Maida et al., 2003). All three studies only collected victimization reports.

Although the three data sets have yielded important information about the prevalence of sexual victimization in college student samples, the current state of knowledge about sexual aggression in Chile remains limited in several respects. First, no studies are available that obtained reports of sexual aggression perpetration, even though such studies would provide relevant information about the problem of sexual aggression and the relationship between sexual aggression victimization and perpetration. Second, the definitions of sexual aggression varied substantially between the three studies. Maida et al. (2003) applied a broad definition of sexual abuse which included verbal sexual harassment, whereas Ilabaca et al. (2015) and Lehrer, Lehrer, & Koss (2013b) considered three specific coercive strategies, namely physical force, use of alcohol and/or drugs, and verbal pressure. Third, Lehrer et al. (2013a) and Maida

et al. (2003) used only a limited number of items to assess sexual victimization, which may underestimate prevalence rates (Koss, 1993). Fourth, the three studies varied with regard to the time period for which sexual victimization reports were collected, considering only the time in college (Maida et al., 2003), the period since age 14 (Lehrer et al., 2013a), or specifying no timeframe at all (Ilabaca et al., 2015). It is obvious that this heterogeneity undermines the comparability of the findings across studies.

The Current Study

The available evidence leaves many questions about sexual aggression among college students in Chile unanswered, in particular referring to sexual aggression perpetration. Therefore, the aim of the current study was to examine the prevalence rates of sexual aggression perpetration and victimization in heterosexual encounters since the legal age of consent in a large sample of college students in Chile. In Chile, the age of consent for heterosexual sexual activities is 14 years, similar to other South American countries, such as Brazil and Colombia. However, the age of consent differs across countries around the world, ranging between 14 and 18 years in the majority of countries.

We used the Sexual Aggression and Victimization Scale (Krahé & Berger, 2013), which is available in Spanish, validated in cross-cultural research, and provides a detailed assessment of sexual aggression victimization and perpetration: It combines three coercive strategies (use or threat of physical force, exploitation of the victim's inability to resist, e.g., due to alcohol or drug use, and use of verbal pressure) with three victim-perpetrator constellations (current or former partners, friends/acquaintances, and strangers). For each combination of coercive strategy and victim-perpetration relationship, four sexual acts are presented (sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual activities, such as oral sex). This instrument enabled us to conduct a first comprehensive analysis of sexual aggression victimization and perpetration among college students in Chile. Because our focus was on nonconsensual sexual contacts, we excluded all forms of sexual transgression where lack of consent is not a defining feature, that is sexual contacts with a child under the age of consent and sexual contacts with a person between the ages of 14 and 18 exploiting a relationship of care, where consent is also not an issue as per article 363 of the Chilean penal code.

Based on previous studies showing higher victimization rates for women than for men, we expected that prevalence rates for sexual victimization would be higher for women than for men, and that women would experience more severe forms of sexual victimization.

Additionally, we predicted that more women than men would be sole victims, i.e., they would report only victimization but no perpetration (Hypothesis 1). By contrast, we expected that more men than women would report sexual aggression perpetration, that men would report more severe forms of perpetration and that more men than women would be sole perpetrators, i.e., they would report only perpetration but no victimization (Hypothesis 2). Regarding the relationship between victim and perpetrator, we predicted that sexual aggression victimization and perpetration would be more common between (ex-)partners and friends/acquaintances than between strangers (Hypothesis 3). Since past research has shown that alcohol is involved in at least half of all sexually aggressive incidents, we expected a similar pattern in our sample (Hypothesis 4). In addition, we predicted that alcohol consumption would be more common in incidents of sexual aggression victimization and perpetration between strangers than between (ex-)partners and friends/acquaintances (Hypothesis 5). Finally, by assessing both sexual aggression victimization and perpetration, we wanted to examine the prevalence of being both a victim and a perpetrator of sexual aggression.

Materials and Methods

Participants

The initial sample consisted of $N = 1,310$ participants (988 female, 322 male) recruited from five public and private universities located in the Santiago Metropolitan and Valparaíso Region in Chile. From this sample, participants below the age of 18 years or 30 years or older were excluded ($n = 47$) because the study was designed to investigate sexual aggression among young adults. A total of 127 participants identified themselves as gay/lesbian (30 women and 39 men) or bisexual (44 women and 14 men). These subgroups were also excluded because heterosexual participants reported a higher age at first sexual intercourse compared to gay/lesbian participants and a lower number of sexual partners compared to bisexual participants. Moreover, gay/lesbian and bisexual participants differed in their sexual behavior, with bisexuals reporting more sexual partners. Therefore, we decided against merging these groups with the large heterosexual sample. We also decided against calculating separate prevalence rates for gay/lesbian and bisexual participants, respectively, as the two groups were too small to yield reliable conclusions. One female participant was excluded because she did not respond to any of the victimization and perpetration items.

The final sample consisted of $N = 1,135$ participants (885 female, 250 male), almost all of whom were college students (97.2%) and Chilean nationals (98.6%). The mean age was 22.0 years ($SD = 2.62$, range 18-29 years). Men were significantly older ($M = 22.4$ years, $SD = 2.68$)

than women ($M = 21.8$ years, $SD = 2.59$), $t(1,126) = -3.01$, $p < .01$. Nearly all participants (95.5%) reported non-coital sexual experiences, such as kissing and touching, and 86.3% of the sample had coital experience. The mean age of first sexual intercourse among the participants with coital experience was 17.2 years ($SD = 2.21$). The majority of participants (92.1%) had been in a relationship in the past or were in a relationship at the time of the survey. Men reported more sexual partners ($M = 2.8$, $SD = 3.10$) than did women ($M = 2.0$, $SD = 2.25$), $t(277) = -3.71$, $p < .001$.

Measures

Sexual aggression victimization and perpetration

To assess female and male prevalence rates for experiencing and engaging in sexual aggression, the Sexual Aggression and Victimization Scale (SAV-S, Krahe & Berger, 2013) was used. The SAV-S was previously applied in 10 countries, including Spain, and validated by cross-cultural research conducted in several European countries (Krahe et al., 2015, 2016). Similar to the widely used Sexual Experience Survey Short Form (SES-SF, Koss et al., 2007), the SAV-S includes different coercive strategies and specific sexual acts. Unlike the SES, it provides a more detailed picture of the relationship context of sexual assault by assessing, for each specific coercive strategy and sexual act, the relationship between the victim and the perpetrator.

We used a Spanish version of the SAV-S, which had already been used and validated in Spain (Krahe et al., 2015, 2016). Speakers of Chilean Spanish adapted the scale to country-specific language usage. A Chilean Spanish version of the remaining items, originally in German, was created by using the back-translation approach. This involved the translation of the German items into Chilean Spanish by a native speaker of Chile, which were then translated back into German by a native speaker of German.

The items assessing sexual aggression victimization and perpetration are constructed in a parallel way. Three coercive strategies are presented: the use or threat of physical force, the exploitation of the victim's inability to resist (e.g., due to alcohol consumption or drug use), and verbal pressure (e.g., by threatening to end the relationship). After each coercive strategy, three different relationship constellations between the victim and the perpetrator are presented: current or former partner, friend or acquaintance, and stranger. Within each relationship constellation, four sexual acts are presented: sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual acts (e.g., oral sex). This cross-classification of coercive strategies, victim-perpetrator relationships, and sexual acts resulted in 36 items each for the victimization and perpetration parts of the SAV-S. Following ethical standards and

previous studies (Krahé et al., 2015), participants were asked about victimization first before being prompted to indicate perpetration behavior.

For each item, participants provided frequency ratings on a 3-point scale: *never* (0), *once* (1), or *more than once* (> 1). Responses were elicited for two time periods: (1) since the age of 14, which represents the legal age of consent for heterosexual sexual contacts in Chile, until 12 months ago, and (2) in the last 12 months. The two time windows correspond to the time periods used by the Sexual Experiences Survey (Koss et al., 2007). The lower age limit of 14 was required to be able to distinguish non-consensual sexual activities from child sexual abuse, where consent is not an issue.

Situational drinking behavior

Participants who reported at least one incident of experiencing or engaging in sexual aggression for a particular relationship constellation were asked if alcohol had been consumed in the situation(s) *by themselves* (1), *the other person* (2), *by both of them* (3), or *not at all* (4).

Sexual orientation and experience

Participants' sexual orientation was assessed by presenting three options: heterosexual, homosexual, and bisexual. Regarding past sexual behavior, participants were asked to indicate (yes/no) if they had consensual non-coital experiences (e.g., kissing and touching) and had had sexual intercourse. If they reported sexual intercourse, they were asked to indicate their age at first sexual intercourse and the number of partners with whom they had sexual intercourse, separately for steady relationships and casual sexual encounters.

Demographic and relationship information

Participants were asked to indicate their sex (male or female), age, nationality, college student status (yes/no), if they had ever been in a relationship, and if they were in a relationship at the time of the study (yes/no).

Procedure

Approval of the study protocol and all instruments was obtained from the institutional review boards of the authors' universities. The data were collected in an online survey during the second semester of 2015. To recruit participants, information about the study was presented in classes with the approval of the head of department and the instructor, and e-mail addresses of

interested students were collected on a voluntary basis to send them the link to the survey. The study was also advertised via institutional e-mail lists, flyers distributed on campuses, and invitations through social media university groups. Participants were required to give active consent on the first page of the questionnaire before being able to proceed to the items.

To account for the possibility that responding to the items might cause distress, a “help button” was provided on each page of the victimization and perpetration questions, which opened a new browser window with information about local counselling centers specializing in sexual violence. This approach follows recommendations of good practice in research on sexual aggression (Krahé & Vanwesenbeeck, 2016). In return for participation, participants were invited to take part in a raffle of gift cards worth \$5,000 CLP (\$7 USD). For this, participants were asked to indicate their e-mail address on a new browser page so that it was stored separately from their answers, ensuing full anonymity.

Plan of Analysis

If participants responded *never* to all victimization items, they were categorized as *non-victims* (coded 0). If they reported at least one incident of sexual victimization, they were categorized as *victim* (coded 1). Perpetration status was coded in the same way. To arrive at a score of lifetime prevalence of sexual aggression victimization and perpetration for each participant, we combined the two time periods.

Because the data were non-normally distributed, we decided to apply non-parametric statistics. Accordingly, for Hypotheses 1 and 2 gender differences in rates for sexual aggression victimization and perpetration and in the sole victimization and perpetration groups were tested through Pearson’s chi square test. Since multiple responses to the victimization and perpetration items were possible, differences in the frequency of relationship constellations in sexually aggressive incidents and alcohol consumption predicted in Hypotheses 3 and 5 could not be tested for significance.

Results

Prevalence of Sexual Aggression Victimization

Across all coercive strategies, victim-perpetrator constellations, and sexual acts, 51.9% of women and 48.0% of men reported sexual victimization since the age of 14. Prevalence rates of sexual victimization broken down by sex, coercive strategy, and victim-perpetrator relationship are presented in Table 1. The gender difference in the overall rate was non-

significant, $\chi^2(1, N = 1,135) = 1.17, p = .280$, disconfirming Hypothesis 1. Looking at specific combinations of coercive strategy and victim-perpetrator relationship, only one significant gender difference was found: More men (14.6%) than women (8.3%) reported sexual victimization by a stranger through the use of verbal pressure, $\chi^2(1, N = 1,103) = 8.80, p < .01$. In the Supplementary Material, we provide tables for the prevalence rates of sexual victimization broken down by sex, coercive strategy, victim-perpetrator relationship, and sexual acts, combined for the two time windows (i.e., since the age of 14) and for the separate time periods (Table 1_Suppl. for sexual victimization for both time periods combined/since the age of 14, Table 2_Suppl. for sexual victimization since the age of 14 up to 12 months ago, Table 3_Suppl. for sexual victimization in the last 12 months).

To examine the gender difference in the severity of participants' victimization experiences predicted in Hypothesis 1, we adopted the scoring proposed by Koss et al. (2008). They created a non-redundant six level classification of increasing severity ranging from no victimization to rape: (1) *No victimization* includes all participants who did not report any form of sexual victimization. (2) *Sexual contact* describes sexual touching without penetration (e.g., kissing, fondling) but excludes the more severe forms of sexual victimization. (3) *Attempted coercion* refers to attempted anal, oral, or vaginal penetration using verbal pressure but excludes coercion, attempted or completed rape. (4) *Coercion* describes verbally pressured anal, oral, or vaginal penetration but excludes attempted or completed rape. (5) *Attempted rape* refers to attempted anal, oral, or vaginal penetration through the use or threat of physical force or the exploitation of the victim's incapacitated state but excludes completed penetration. (6) *Rape* describes anal, oral, or vaginal penetration by using or threatening to use physical force or exploiting the victim's inability to resist. Table 2 presents the prevalence rates of sexual victimization according to this classification for female and male participants.

The findings show that the high overall rates of sexual victimization are due to the high prevalence of completed rape, which was reported by 30.7% of female and 32.4% of male participants. The remaining categories had much lower frequencies. Women and men did not differ in the overall distribution or on any of the individual categories, disconfirming Hypothesis 1.

Table 1

Sexual Aggression Victimization in Percent Since Age 14, Broken Down by Sex, Coercive Strategy, and Victim-Perpetrator Relationship, N = 1,135
(n_f = 885, n_m = 250)

Victim - Perpetrator Relationship	Coercive Strategy						Total Relationship (at least one >=1 per row)	
	Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
	Women	Men	Women	Men	Women	Men	Women	Men
(Ex-)Partner	26.3	27.2	18.3	17.3	22.1	17.5	36.0	34.8
Friend/Acquaintance	24.7	24.8	21.0	19.8	12.4	13.8	32.1	32.8
Stranger	17.7	20.0	16.4	16.5	8.3*	14.6*	23.7	25.2
Total Coercive Strategy (at least one >=1 per column)	43.0	39.2	34.7	29.0	29.1	26.0	51.9	48.0

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

Table 2

Sexual Aggression Victimization in Percent Since Age 14 Based on the Scoring Proposed by Koss et al. (2008), N = 1,135 (n_f = 885, n_m = 250)

	Sexual Victimization	
	Women	Men
No victimization	48.1	52.0
Sexual contact	10.7	8.4
Attempted coercion	1.1	0.0
Coercion	3.5	4.4
Attempted rape	5.8	2.8
Rape	30.7	32.4

With respect to the relationship between victimization and perpetration, within the victimized group, 55.0% of men and 70.2% of women were sole victims, that is they only experienced sexual victimization and did not report perpetration, the remaining 45% of men and 29.8% of women in the victimization group also reported some form of perpetration. The gender difference was significant, $\chi^2(1, N = 573) = 9.91, p < .01$, confirming Hypothesis 1.

Prevalence of Sexual Aggression Perpetration

The overall prevalence rates of sexual aggression perpetration since the age of 14 across all coercive strategies, relationship constellations, and sexual acts were 16.5% for women and 26.8% for men. Table 3 shows the prevalence rates for sexual aggression perpetration broken down by sex, coercive strategies, and victim-perpetrator relationship. In line with Hypothesis 2, the gender difference in the overall perpetration rate was significant, $\chi^2(1, N = 1,121) = 13.40, p < .001$. With respect to gender differences for specific constellations of coercive strategy and relationship, more men than women reported sexual aggression perpetration toward a friend or acquaintance through threatening or using physical force, $\chi^2(1, N = 1,104) = 8.33, p < .01$, and through exploiting the victim's inability to resist, $\chi^2(1, N = 1,096) = 8.77, p < .01$. More men than women reported sexual aggression

perpetration toward a stranger through exploiting his/her inability to resist, $\chi^2(1, N = 1,096) = 9.74, p < .01$. In the Supplementary Material, we provide tables for the prevalence rates of sexual aggression perpetration broken down by sex, coercive strategy, victim-perpetrator constellation, and sexual acts, since the age of 14 and for the separate time periods (Table 4_Suppl. for sexual perpetration for both time periods combined/since the age of 14, Table 5_Suppl. for sexual perpetration since the age of 14 up to 12 months ago, Table 6_Suppl. for sexual perpetration in the last 12 months).

Comparing sexual aggression victimization and perpetration, prevalence rates were significantly higher for victimization among both men (48.0% victimization vs. 26.8% perpetration, $\chi^2(1, N = 250) = 38.97, p < .001$) and women (51.9% victimization vs. 16.5% perpetration, $\chi^2(1, N = 871) = 120.43, p < .001$).

To test the gender difference in the severity of sexual assault perpetration proposed in Hypothesis 2, we applied the six-level classification of severity by Koss et al. (2008) to the perpetration reports and categorized all participants according to their most severe form of perpetration reported. The results of this classification are presented in Table 4. For the overall distribution of the six-level scores, a significant gender difference was found, $\chi^2(5, N = 1,121) = 18.17, p < .01$, confirming Hypothesis 2. At the level of the different categories, significantly more women than men fell into the non-perpetrator category, whereas at the other end of the severity spectrum, significantly more men than women reported rape.

In the perpetration group, 19.4% of men and 6.3% of women were sole perpetrators, i.e., they reported perpetration but no victimization, whereas the majority of perpetrators (80.6% of men and 93.8% of women) also reported victimization. The gender difference was significant, $\chi^2(1, N = 211) = 8.47, p < .01$, supporting Hypothesis 2.

Table 3

Sexual Aggression Perpetration in Percent Since Age 14, Broken Down by Sex, Coercive Strategy, and Victim-Perpetrator Relationship, N = 1,121
 ($n_f = 871$, $n_m = 250$)

Victim - Perpetrator Relationship	Coercive Strategy						Total Relationship (at least one >=1 per row)	
	Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
	Women	Men	Women	Men	Women	Men	Women	Men
(Ex-)Partner	5.0	8.5	4.2	7.3	7.3	10.7	11.7**	19.6**
Friend/Acquaintance	4.0**	8.5**	4.5**	9.4**	3.7	5.4	8.3**	14.9**
Stranger	3.5	4.5	2.5**	6.6**	1.8	3.7	5.1	7.6
Total Coercive Strategy (at least one >=1 per column)	8.6	12.9	7.7*	13.0*	9.1	12.0	16.5****	26.8****

Note. Gender differences: * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .001$. Multiple responses were possible.

Table 4

Sexual Aggression Perpetration in Percent Since Age 14 Based on the Scoring Proposed by Koss et al. (2008), N = 1,121 (n_f = 871, n_m = 250)

	Sexual Aggression Perpetration	
	Women	Men
No perpetration	83.5***	73.2***
Sexual contact	5.3	6.4
Attempted coercion	0.6	0.4
Coercion	2.9	3.6
Attempted rape	1.5	3.2
Rape	6.3***	13.2***

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

Victim-Perpetrator Relationship and Coercive Strategies

With respect to the relationship between victim and perpetrator, sexual victimization by a current or former partner was reported by 36.0% of women and 34.8% of men. A similar percentage of women (32.1%) and men (32.8%) reported victimization by a friend or acquaintance, and the lowest rates were found for victimization by strangers, reported by 23.7% of women and 25.2% of men. For sexual aggression perpetration, 19.6% of men and 11.7% of women reported sexual aggression perpetration toward a current or former partner, followed by a friend or acquaintance (14.9% of men and 8.3% of women). The lowest prevalence rates were found for sexual aggression perpetration toward a stranger, reported by 7.6% of men and 5.1% of women. These findings confirm Hypothesis 3.

Gender differences within each relationship constellation were tested with a corrected alpha level of $p < .05/3$ (critical $p = .017$) to account for separate tests for the three victim-perpetrator constellations. For sexual victimization, the gender differences were nonsignificant, with $\chi^2(1, N = 1,135) = 0.13, p = .717$ for current or former partners, $\chi^2(1, N = 1,135) = 0.05, p = .832$ for friends/acquaintances, and $\chi^2(1, N = 1,135) = 0.23, p = .631$ for strangers. Regarding sexual aggression perpetration, more men than women reported sexually aggressive behavior toward a current or former partner, $\chi^2(1, N = 1,121) = 10.37, p < .01$, and toward a

friend or acquaintance, $\chi^2(1, N = 1,120) = 9.58, p < .01$. No gender difference was found for sexually aggressive behaviors toward strangers, $\chi^2(1, N = 1,120) = 2.43, p = .119$.

Regarding victimization, the most prevalent coercive strategy was the use or threat of physical force, reported by 43.0% of women and 39.2% of men, followed by exploitation of the inability to resist, reported by 34.7% of women and 29.0% of men, and verbal pressure, reported by 29.1% of women and 26.0% of men. Gender differences were tested across the three coercive strategies using a corrected alpha-level of $p = .05/3$ (critical $p = .017$). No significant gender differences were found for the three coercive strategies, $\chi^2(1, N = 1,132) = 1.14, p = .287$ for physical force, $\chi^2(1, N = 1,121) = 2.80, p = .095$ for exploitation, and $\chi^2(1, N = 1,109) = 0.89, p = .346$ for verbal pressure.

With respect to sexual aggression perpetration, the prevalence rates for the three coercive strategies (use or threat of physical force, exploitation of the victim's inability to resist, and verbal pressure) were similar, ranging between 12.0% and 13.0% for men and between 7.7% and 9.1% for women. Gender differences within each coercive strategy were examined using a corrected alpha level of $p < .05/3$ (critical $p = .017$). Paralleling our findings for sexual victimization, men and women did not differ in their use or threat of physical force, $\chi^2(1, N = 1,109) = 4.14, p = .042$, and verbal pressure, $\chi^2(1, N = 1,095) = 1.72, p = .189$. By contrast, more men than women reported having exploited the victim's inability to resist, $\chi^2(1, N = 1,100) = 6.56, p < .017$.

Alcohol Use

Regarding alcohol consumption in incidents of sexual victimization, 63.6% of women and 70.0% of men reported that they, the perpetrator, or both had drunk alcohol in at least one of the reported incidents. With respect to sexual aggression perpetration, about half of the female (48.6%) and male (53.7%) perpetrators indicated that alcohol had been consumed by themselves, the other person, or both, in the situations in which they had shown sexually aggressive behavior. These findings are consistent with Hypothesis 4. The gender differences were not significant, $\chi^2(1, N = 579) = 1.70, p = .192$ for victimization and $\chi^2(1, N = 209) = 0.48, p = .488$ for perpetration.

As predicted in Hypothesis 5, the use of alcohol was more common in victimization and perpetration incidents involving a stranger (79.5% of women and 84.1% of men who reported victimization by a stranger and 68.2% of women and 89.5% of men who reported having engaged in sexual aggression toward a stranger indicated that alcohol was consumed) than in incidents involving a friend or acquaintance (victims: 62.9% of women and 70.7% of men;

perpetrators: 50.0% of women and 62.2% of men) and an (ex-)partner (victims: 40.9% of women and 51.7% of men; perpetrators: 31.3% of women and 40.8% of men). No significant gender differences were found. These findings are consistent with Hypothesis 5 that alcohol is primarily involved in incidents of sexual aggression in which the victim and the perpetrator are strangers.

Discussion

The purpose of the present study was to provide detailed evidence on the prevalence of sexual aggression victimization and perpetration since the age of consent (i.e., 14 years) in a large sample of college students in Chile. Additionally, we explored the role of alcohol in incidents of victimization and perpetration. By collecting reports of both victimization and perpetration from male and female participants, our study adopted a gender-inclusive approach to the study of sexual aggression (Turchik et al., 2016). The age range of our sample was 18 to 29 years.

Regarding participants' sexual experience background, almost all participants (95.5%) reported non-coital experiences, such as sexual touching and kissing, and 86.4% of the sample reported coital experience. The latter rate was higher than in past studies with young adults in Chile, which provided estimates between 65% and 71% (INJUV, 2013; Lehrer et al., 2009; Lehrer et al., 2013b). This difference may be due to the age range of our study starting at 18 years, compared to the study by INJUV (2013), which included participants from the age of 15, but it may also reflect an ongoing liberalization of sexual attitudes and behavior, because the estimates provided by Lehrer and her colleagues (2009, 2013b) were based on a study conducted in 2005. In terms of the onset of coital activities, age at first sexual intercourse in our sample (17.2 years) was similar to figures from past national research and findings from Western countries (Barrientos, 2010; Durex, 2005; Reissing, Andruff, & Wentland, 2012).

Across all coercive strategies, victim-perpetrator relationships, and sexual acts, 51.9% of women and 48.0% of men reported sexual aggression victimization. These rates were higher than previous findings from college student samples in Chile (Ilabaca et al., 2015; Lehrer et al., 2013a; Maida et al., 2003), which may be attributed to the more detailed and behaviorally specific assessment of sexual victimization that permits a better detection of nonconsensual sexual experiences (cf., Koss, 1993). Cross-cultural research from Europe found similar victimization rates for both male and female college students in Greece (55.8% for men and 45.5% for women), for men in Cyprus (49.0%), and for women in the Netherlands (52.2%; Krahe et al., 2015). Regarding the severity of victimization incidents, it is noteworthy that the highest prevalence rates were found for rape rather than for less severe forms, such as sexual

contact. This finding indicates that if sexual aggression occurs, it is likely to take the most severe form, namely rape, rather than showing a pattern of higher frequencies for the less severe forms of sexual aggression.

With respect to the perpetration of sexually aggressive behavior, the overall perpetration rates were 26.8% for men and 16.5% for women, constituting the first estimates for college students in Chile. In cross-cultural research, similar prevalence rates were obtained in college students samples from Australia (25.0% of men, 12.7% of women) and Singapore (27.0% of men, 19.3% of women; both countries included in Chan, Straus, Brownridge, Tiwari, & Leung, 2008) as well as from Turkey (28.9% of men, 14.2% of women; Schuster, Krahe, & Toplu-Demirtaş, 2016). Again, the highest prevalence rates were found for the most severe form of sexual aggression perpetration, namely rape.

Looking at sexual aggression victimization and perpetration in combination, we found victimization rates to be substantially higher than perpetration rates in both gender groups (for women: 51.9% victimization vs. 16.5% perpetration; for men: 48.0% victimization vs. 26.8% perpetration). This discrepancy confirms the substantial difference in self-reports about victim and perpetrator behavior reported by past studies (e.g., Kolivas & Gross, 2007; Krahe & Berger, 2013). It may be related to the fact that perpetration behavior is socially disapproved and the possibility that perpetrators may have multiple victims. The finding that the reporting discrepancy held for both men and women speaks against the explanation that it is due to men's misinterpretation or overestimation of female friendliness as a sexual interest cue (Abbey, 1982; Perilloux, Muñoz-Reyes, Turiegano, Kurzban, & Pita, 2015). Instead, it is consistent with the alternative explanation that victims have first-hand knowledge of their lack of consent, whereas perpetrators need to infer non-consent from the victim's verbal statements and behavior (Kolivas & Gross, 2007).

Concerning gender differences, our prediction in Hypothesis 1 that more women than men would report sexual victimization, was not supported. Overall, there was no significant difference between the prevalence rates for men and women, and the differentiation of sexual victimization experiences by severity did not show gender differences either. Prevalence rates broken down by coercive strategy and relationship constellation revealed only one significant gender difference, with more men than women reporting sexual victimization through verbal pressure by a stranger. This finding may be related to traditional gender stereotypes which assume that men are always willing to have sex. Hence, if a woman wants to have sexual contact with a male stranger, he may be less willing to express refusal and/or she may be less likely to accept his refusal as genuine.

The absence of gender differences in sexual aggression victimization found in our study is contrary to a large body of Western research which has shown higher victimization rates for women than for men (e.g., Breiding et al., 2014; Cantor et al., 2015). However, the findings are consistent with several recent studies from the cross-cultural literature that also found no or only few gender differences (e.g., Brazil: D'Abreu et al., 2013; U.S.: Hines, Armstrong, Reed, & Cameron, 2012; Turkey: Schuster et al., 2016; Poland: Tomaszewska & Krahé, 2015) or even higher victimization rates among men compared to women (Krahé et al., 2015), challenging traditional views and stereotypes about sexual aggression victimization. More research is needed to understand social processes, cultural variables, sexuality related cognitions (e.g., sexual scripts, sexual self-esteem) as well as risky sexual behavior which may explain the absence of gender differences in victimization, particularly in the non-Western countries.

Although we did not find many gender differences in the prevalence of sexual victimization, the psychological impact of sexual victimization may be different for women and men. More research is needed to examine the possibility that women may be more adversely affected by the experience of sexual victimization compared to men, possibly as a result of the imbalance of physical strength. The current body of evidence comparing the psychological consequences of sexual assault for male and female victims is limited and does not provide a conclusive picture. Whereas some studies found more negative effects on women, others found no gender difference, and yet others more adverse effects on men (Peterson et al., 2011, for a review). Future research is needed to clarify the issue of whether sexual assault victimization has a different impact on female and male victims.

As predicted in Hypothesis 2, more men than women reported the perpetration of sexually aggressive behavior, which is in line with past international evidence (Krahé & Berger, 2013; Williams et al., 2014). For prevalence rates according to the level of severity, men also reported more sexual aggression perpetration than women, except for attempted coercion (0.4% of men and 0.6% of women), but the gender difference was only significant for rape. Additionally, significantly more men (19.4%) than women (6.3%) reported being sole perpetrators, i.e., they only reported perpetration but no victimization. This means that the number of participants who were perpetrators only was very low, and substantially lower than the number of participants who were victims only. Similar results were found by Russell and Oswald (2001, 2002) who showed that 62.9% of men and 80.8% of women in the perpetration group had also been sexually victimized. To explain the overlap of victim and perpetrator roles, longitudinal studies that can assess the temporal sequence of victimization and perpetration are needed.

With respect to victim-perpetrator relationship constellations, sexual aggression victimization and perpetration were more common between (ex-)partners and friends/acquaintances than between strangers, which was in line with Hypothesis 3 and past national and international evidence (e.g., Lehrer et al., 2013a; Schuster et al., 2016; Tomaszewska & Krahé, 2015). This indicates that sexual aggression is more prevalent among persons who know each other than between unknown parties, disconfirming stereotyped views on sexual aggression.

Several cultural factors may have contributed to the high male and female victimization rates. First, although sex education is part of formal education in Chile (Ministerio de Salud, Subsecretaría de Salud Pública, 2010), it focuses mainly on biological aspects of reproduction and disregards emotional dimensions, pleasure, sexual diversity, and sexual violence (Macintyre, Montero Vega, & Sagbakken, 2015). Other potential sources of information may also be limited or provide a view of sexuality influenced by myths and cultural taboos (Macintyre et al., 2015). Another source of information, in particular for men, is pornography (Macintyre et al., 2015), which is associated with gender-stereotypical beliefs about sexuality and with experiencing and engaging in sexual aggression (Peter & Valkenburg, 2016, for a review). Accordingly, young adults' knowledge about sexuality is limited (Barrientos Delgado & Silva Segovia, 2014), which may compromise their sense of sexual self-determination as well as their respect for the rights of their partners. Second, despite a general liberalization of sexuality (González et al., 2007), which includes the acceptance of premarital sexual intercourse and greater sexual autonomy for women (Barrientos Delgado & Silva Segovia, 2014), double standards for male and female sexuality still prevail. In particular, women who engage in casual sex are often regarded as “whores” or “easy”, while the same does not apply to men (Barrientos Delgado & Silva Segovia, 2014). Thus, this image of women may undermine the respect for women's consent. At the same time, men are expected to be sexually active and experienced, and the social pressure to fulfill this expectation may undermine men's ability and confidence to reject unwanted sexual advances. Third, it is not unusual that young adults in Chile do not have an intimate space where they can engage in sexual intercourse (Barrientos Delgado & Silva Segovia, 2014), in particular those who are economically vulnerable or have more conservative parents. They have to rely on opportunities in which they can use rooms of friends, motels, cars, and public spaces, which may pressure them to have sex when these opportunities arise, potentially undermining respect for mutual consent. Fourth, adherence to the values of the Catholic Church, associated with later sexual initiation and fewer sexual partners (Pedersen, 2014), and the simultaneous exposure to information about very

liberal sexual behavior in other parts of the world through globalization convey conflicting messages about sexual relationships. This may contribute to blurred boundaries between consensual sexual activities and sexual aggression.

Another cultural factor may be the high alcohol consumption and binge drinking rates among young adults in Chile (Mason-Jones & Cabieses, 2015; Saldivia & Vizcarra, 2012), given that alcohol is a substantial risk factor for sexual assault. In the present study, alcohol was consumed by one or both parties in at least half of all sexual aggression victimization and perpetration incidents, which is consistent with Hypothesis 4 and past research (Abbey et al., 2004, for a review). It is especially noteworthy that, in line with past research, the use of alcohol was more common between strangers than between (ex-)partners and friends/acquaintances, confirming Hypothesis 5. Alcohol consumption with its impairment of cognitive processes may promote the misinterpretation of another person's behaviors and cues as indicating sexual interest (Abbey et al., 2004), which is more likely to be the case among strangers. Accordingly, alcohol may lower the threshold for using sexual coercion, particularly if there is no emotional connection between perpetrator and victim. However, further culture-sensitive research is needed to confirm these tentative explanations and to understand how young adults' sexuality is shaped by cultural norms and expectations, including alcohol-related beliefs and behaviors. Such research should adopt a qualitative approach to gain a better understanding of the meaning and social construction of sexual aggression from both the victim and the perpetrator perspective (Krahé et al., 2016).

Strengths and Limitations

We believe that our study has several strengths. We were able to recruit a large sample of students from different public and private universities located in the Santiago Metropolitan and Valparaíso Region, where about half of the Chilean population lives (Comité Nacional de Estadísticas Vitales, 2015). Our study collected information about sexual aggression victimization and perpetration from both men and women, which means we were able to provide insights in the relationship between being a victim and engaging in sexually aggressive behavior. Additionally, the assessment of coercive strategies, relationship constellations between victim and perpetrator, and sexual acts yielded a detailed picture of sexual aggression victimization and perpetration in a country for which little previous evidence is available.

At the same time, several limitations have to be noted. The first is that we used a convenience sample, and future research is needed to determine whether similar prevalence rates are obtained in other samples of college students and young adults more generally. This

limitation notwithstanding, it has been shown that convenience samples may yield valid conclusions (Straus, 2009). A second limitation was that women were overrepresented in the sample, which should be kept in mind when interpreting the male prevalence rates. Third, our initial sample included persons who described their sexual orientation as gay/lesbian or bisexual, however their number was too small to facilitate reliable analyses of prevalence rates. More research is needed both in Chile and internationally about the prevalence of sexual aggression victimization and perpetration among gay, lesbian, and bisexual persons since studies suggest that they may be a vulnerable group (Rothman, Exner, & Baughman, 2011, for a review). Fourth, in assessing sexual aggression our focus was on nonconsensual sexual contacts. Therefore, we excluded all forms of sexual transgression where lack of consent is not a defining feature, i.e. childhood sexual abuse by any perpetrator under the age of 14 and sexual contacts by family members, which are based on the exploitation of a relationship of care. To cover all facets of sexual aggression, future research should consider to include family members and other perpetrators exploiting a position of trust or authority.

Despite these limitations, the current study provides new data about the prevalence of sexual aggression among college students in Chile, addressing the knowledge gap about victimization and, in particular, perpetration in this country. Consistent with studies from the international literature, sexual aggression was established to be a serious problem among college students, affecting a substantial proportion of women and men. The findings highlight the need to put sexual aggression on the policy agenda in Chile, documenting the need to develop and implement prevention programs, including the coverage of sexual aggression in formal sex education curricula. Furthermore, our findings contribute to the international data base on sexual aggression and provide a starting point for considering cultural variables that may allow a better understanding of young adults' sexuality and sexual aggression in different parts of the world.

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Supplementary Material: Prevalence of Specific Forms of Sexual Aggression Victimization and Perpetration

Table 1_Suppl.

Sexual Victimization in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity for Both Time Periods Combined (= Since Age 14), N = 1,135 (n_f = 885, n_m = 250)

Victim-Perpetrator Relationship (Ex-)Partner	Sexual Activity	Coercive Strategy						Overall (at least one ≥ 1 per row)	
		Use/Threat of Physical Force		Exploitation of the Inability to Resist		Verbal Pressure			
		Women	Men	Women	Men	Women	Men		
Total (Ex-)Partner	Touching	21.0	22.0	15.5	16.5	18.1	15.4	30.3	31.6
	Attempted sex. inter.	16.3	21.2	12.3	13.8	16.3	13.4	25.0	27.2
	Completed sex. inter.	12.3**	19.2**	9.9	10.9	13.4	12.2	20.8	26.0
	Other (e.g., oral sex)	13.8	19.6	9.4	13.0	13.3	13.0	21.2	26.0
Friend/Acquaintance	Touching	21.9	22.4	18.9	19.0	11.0	13.0	29.6	31.2
	Attempted sex. inter.	13.0	16.9	11.1	14.9	7.6	10.2	18.4	22.4
	Completed sex. inter.	8.7**	15.6**	7.9	12.9	4.5**	9.3**	13.3	19.6
	Other (e.g., oral sex)	8.7***	17.6***	7.9	12.9	4.9**	10.2**	13.1***	22.8***
Stranger	Touching	16.4	20.0	15.5	15.7	7.8	13.0	22.8	24.0
	Attempted sex. inter.	7.1**	13.7**	7.3	11.7	3.4***	9.8***	11.2	17.2
	Completed sex. inter.	4.2***	11.6***	4.4***	11.7***	2.0***	7.3***	6.9***	15.2***
	Other (e.g., oral sex)	4.2***	12.4***	4.5***	11.3***	2.9***	10.2***	7.5***	16.4***
Total Coercive Strategy		17.7	20.0	16.4	16.5	8.3**	14.6**	23.7	25.2
		43.0	39.2	34.7	29.0	29.1	26.0	51.9	48.0

Note. ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

Table 2_Suppl.

Sexual Victimization in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity since Age 14 up to 12 Months ago,
N = 1,089 (n_f = 853, n_m = 236)

Victim – Perpetrator Relationship	Sexual activity	Coercive Strategy								Overall (at least one >=1 per row)
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		Overall		
		Women	Men	Women	Men	Women	Men	Women	Men	
(Ex-)Partner	Touching	15.0	14.5	10.6	10.2	13.0	8.4	20.9	20.5	
	Attempted sex. inter.	11.5	12.6	8.6	8.0	11.7	7.5	17.0	16.2	
	Completed sex. inter.	8.4	10.4	7.0	6.7	8.6	6.3	13.1	15.4	
	Other (e.g., oral sex)	8.3**	14.4**	6.0	7.6	8.3	7.1	12.5	17.1	
Total (Ex-)Partner	18.9	19.3	12.6	10.1	15.2	9.3	24.9	23.5		
Friend/Acquaintance	Touching	16.4	13.8	14.2	10.7	8.2	9.2	22.5	20.1	
	Attempted sex. inter.	8.6	10.4	7.6	8.0	5.1	6.6	12.5	13.7	
	Completed sex. inter.	5.5	8.6	5.2	7.1	2.7	6.1	8.4	11.5	
	Other (e.g., oral sex)	5.3**	10.3**	5.4	7.6	3.1	6.6	8.4	13.7	
Total Friend/Acquaintance	18.0	15.6	15.4	11.5	8.9	9.6	24.4	21.4		
Stranger	Touching	10.3	9.4	10.4	9.3	5.1	7.9	15.8	14.0	
	Attempted sex. inter.	4.2	6.3	4.8	6.7	2.4**	6.1**	7.2	9.0	
	Completed sex. inter.	2.6	5.4	2.6**	6.2**	1.1***	4.9***	4.0	8.1	
	Other (e.g., oral sex)	2.2**	6.7**	2.3**	6.7**	1.4***	6.6***	3.8***	9.8***	
Total Stranger	11.2	10.6	11.1	9.3	5.3	8.7	16.6	15.3		
Total Coercive Strategy	31.5	26.8	26.0**	17.5**	19.9	15.3	38.6	33.1		

Note. ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

Table 3_Suppl.

Sexual Victimization in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity in the Last 12 Months, N = 1,053
($n_f = 817$, $n_m = 236$)

Victim – Perpetrator Relationship	Sexual activity	Coercive Strategy								Overall (at least one >=1 per row)
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		Overall		
		Women	Men	Women	Men	Women	Men	Women	Men	
(Ex-)Partner	Touching	11.6	16.5	9.5	13.4	9.9	13.6	18.5	25.0	
	Attempted sex. inter.	9.4**	16.6**	7.0	10.8	8.1	11.4	15.5	21.7	
	Completed sex. inter.	7.1***	16.6***	5.6	9.4	7.8	10.5	13.4**	21.8**	
	Other (e.g., oral sex)	8.6**	14.5**	5.9	10.9	7.8	11.4	13.7**	22.1**	
Total (Ex-)Partner	15.7	22.1	10.9	15.2	12.5	16.4	23.6	29.2		
Friend/Acquaintance	Touching	11.6**	18.3**	9.7**	16.8**	6.0	10.6	15.7***	26.1***	
	Attempted sex. inter.	7.9**	14.5**	6.2***	14.1***	4.1**	9.3**	10.6***	20.9***	
	Completed sex. inter.	5.5***	13.5***	4.6**	10.9**	2.9***	8.3***	8.1***	17.8***	
	Other (e.g., oral sex)	5.8***	16.3***	4.5***	12.8***	2.9***	8.8***	8.2***	21.7***	
Total Friend/Acquaintance	13.7**	21.0**	11.1	17.6	6.9	12.0	17.8***	28.7***		
Stranger	Touching	10.9	16.9	8.9	13.9	4.9**	11.1**	13.7	20.4	
	Attempted sex. inter.	4.7***	11.7***	4.2***	10.6***	2.1***	7.8***	6.8***	15.2***	
	Completed sex. inter.	2.9***	9.9***	2.7***	10.6***	1.3***	5.6***	4.5***	13.0***	
	Other (e.g., oral sex)	3.2***	10.9***	3.2***	9.7***	2.1***	8.8***	5.3***	15.2***	
Total Stranger	11.6	17.3	9.4**	15.7**	5.3***	13.4***	14.1**	22.2**		
Total Coercive Strategy	26.6	33.6	19.2	25.2	16.9	24.0	33.4*	41.5*		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

Table 4_Suppl.

Sexual Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity for Both Time Periods Combined (= Since Age 14). N = 1,121 (n_f = 871, n_m = 250)

Victim-Perpetrator Relationship	Sexual Activity	Coercive Strategy						Overall (at least one ≥ 1 per row)	
		Use/Threat of Physical Force		Exploitation of the Inability to Resist		Verbal Pressure			
		Women	Men	Women	Men	Women	Men		
(Ex-)Partner	Touching	4.7	7.7	3.6	5.7	5.9	8.3	10.1**	16.1**
	Attempted sex. inter.	2.9	4.5	2.1	4.9	3.5	6.6	6.2	10.4
	Completed sex. inter.	2.1	3.2	1.9**	5.7**	2.4**	6.6**	5.1**	10.0**
	Other (e.g., oral sex)	1.6	3.2	1.6	3.7	2.6	5.0	4.5	7.6
Total (Ex-)Partner		5.0	8.5	4.2	7.3	7.3	10.7	11.7**	19.6**
Friend/Acquaintance	Touching	3.7**	8.5**	4.0	7.3	3.1	4.6	7.6**	12.9**
	Attempted sex. inter.	2.0	4.9	1.9**	4.9**	1.3	3.3	3.6***	9.2***
	Completed sex. inter.	1.5	2.4	1.6**	4.9**	1.4	2.9	3.2**	7.2**
	Other (e.g., oral sex)	1.3**	4.9**	1.8**	5.0**	1.2**	3.7**	3.1**	8.0**
Total Friend/Acquaintance		4.0**	8.5**	4.5**	9.4**	3.7	5.4	8.3**	14.9**
Stranger	Touching	3.4	4.5	1.9**	5.7**	1.5	3.7	4.6	7.2
	Attempted sex. inter.	1.6	2.8	1.2***	4.9***	0.8	2.5	2.3**	6.0**
	Completed sex. inter.	0.7	2.4	0.9**	3.3**	0.5	1.7	1.6	4.0
	Other (e.g., oral sex)	0.7**	3.2**	0.6***	4.5***	0.5**	2.5**	1.5**	5.2**
Total Stranger		3.5	4.5	2.5**	6.6**	1.8	3.7	5.1	7.6
Total Coercive Strategy		8.6	12.9	7.7*	13.0*	9.1	12.0	16.5***	26.8***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

Table 5_Suppl.

Sexual Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity since Age 14 up to 12 Months ago,
N = 1,071 (n_f = 834, n_m = 237)

Victim – Perpetrator Relationship	Sexual activity	Coercive Strategy								Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation		Verbal Pressure		Overall			
		Women	Men	Women	Men	Women	Men	Women	Men		
(Ex-)Partner	Touching	2.7	4.8	1.2**	3.9**	3.1	3.5	3.1	3.5	5.7	8.5
	Attempted sex. inter.	1.7	2.6	0.9**	3.5**	2.1	1.8	2.1	1.8	3.6	4.7
	Completed sex. inter.	1.1	1.7	0.7**	3.5**	1.5	1.8	1.5	1.8	2.8	4.7
	Other (e.g. oral sex)	0.7	2.6	0.7	2.2	1.4	1.8	1.4	1.8	2.3	4.3
Total (Ex-)Partner			3.1	5.2	1.6**	4.8**	3.8	4.8	3.8	6.7	10.6
Friend/Acquaintance	Touching	2.2	5.2	2.2	4.4	1.5	2.7	1.5	2.7	4.3	7.6
	Attempted sex. Inter.	1.0	2.6	1.1	3.1	0.7	1.3	0.7	1.3	1.8	4.7
	Completed sex. Inter.	0.7	1.3	0.9	3.1	0.6	0.9	0.6	0.9	1.7	3.8
	Other (e.g. oral sex)	0.6**	3.0**	0.9	3.1	0.5	1.8	0.5	1.8	1.3**	4.7**
Total Friend/Acquaintance			2.3	5.6	2.7	6.1	2.1	3.6	2.1	5.0*	9.3*
Stranger	Touching	2.1	2.2	1.4	3.5	0.5	2.2	0.5	2.2	2.8	4.7
	Attempted sex. inter.	1.1	1.3	0.5**	3.1**	0.6	1.3	0.6	1.3	1.3	3.4
	Completed sex. inter.	0.2	0.9	0.6	1.8	0.4	0.9	0.4	0.9	1.0	2.1
	Other (e.g. oral sex)	0.4	1.8	0.2***	2.6***	0.2***	1.8**	0.2***	1.8**	0.7**	3.0**
Total Stranger			2.2	2.2	1.7	3.9	0.7	2.2	0.7	3.1	4.7
Total Coercive Strategy			5.6	8.2	4.4*	8.6*	5.0	5.7	5.0	10.4*	15.2*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

Table 6_Suppl.
Sexual Perpetration in Percent, Broken Down by Sex, Coercive Strategy, Victim – Perpetrator Relationship and Type of Sexual Activity in the Last 12 Months, N = 1,032
 ($n_f = 800, n_m = 232$)

Victim – Perpetrator Relationship	Sexual activity	Coercive Strategy								Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation		Verbal Pressure		Overall			
		Women	Men	Women	Men	Women	Men	Women	Men		
(Ex-)Partner	Sexual activity										
	Touching	3.2	4.5	2.9	4.5	4.0	6.4	7.0	10.9		
	Attempted sex. inter.	1.7	2.7	1.4	4.1	2.1**	6.0**	3.6**	8.7**		
	Completed sex. inter.	1.3	1.8	1.3**	4.6**	1.2***	5.5***	2.9**	7.8**		
	Other (e.g. oral sex)	1.3	1.3	1.0**	3.7**	1.4**	4.6**	2.8	6.1		
Total (Ex-)Partner		3.2	4.9	3.2	5.9	5.1	8.3	8.2*	13.5*		
Friend/Acquaintance	Touching	2.5**	7.2**	2.6	6.0	2.5	3.2	5.2**	10.4**		
	Attempted sex. inter.	1.6	4.1	1.4	3.7	1.1	2.8	2.9**	7.4**		
	Completed sex. inter.	1.2	2.7	1.3	3.7	1.2	2.8	2.5**	6.1**		
	Other (e.g. oral sex)	1.2	3.6	1.2**	4.2**	1.2	3.2	2.8**	7.0**		
Total Friend/Acquaintance		2.6**	7.2**	2.9**	6.9**	2.9	4.1	5.8**	11.7**		
Stranger	Touching	2.3	4.1	1.2**	4.6**	1.4	2.7	3.2	5.7		
	Attempted sex. inter.	1.1	2.7	1.1**	4.2**	0.5	1.8	1.9**	5.3**		
	Completed sex. inter.	0.7	2.7	0.5**	3.3**	0.3	1.4	1.1**	3.9**		
	Other (e.g. oral sex)	0.4**	2.7**	0.4**	4.2***	0.4	1.8	1.0***	4.8***		
Total Stranger		2.4	4.1	1.5***	5.6***	1.7	2.7	3.4	6.1		
Total Coercive Strategy		5.5	9.8	5.6	10.0	6.4	9.5	11.0***	19.8***		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Sex. inter. = Sexual intercourse. Multiple responses were possible.

8. Prevalence of Sexual Aggression Victimization and Perpetration in a Sample of Female and Male College Students in Turkey¹⁴

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Abstract

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.

Key words: Sexual Aggression, Victimization, Perpetration, Alcohol, Turkey

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

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 (Krahé, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014, for a review), and is linked to a range of negative physical, behavioral, and mental health outcomes (Martin, Macy, & Young, 2011). The World Health Organization (WHO, 2014, p. 76) 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”. 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, 2015; Sinozich & Langton, 2014). For example, in the National Intimate Partner and Sexual Violence Survey 2011 conducted in the U.S., 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 about 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, Türkyılmaz, & 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 (Sakallı, 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% (Guvenc, Akyuz, & Cesario, 2014, for a review). Honor concerns, such as family honor which emphasizes a family's social reputation and women's premarital 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, & Arıcan, 2000; Toplu-Demirtaş, Hatipoğlu-Sümer, & White, 2013; Yiğitalp, Ertem, & Özkaynak, 2007). Only two studies investigated male sexual victimization (27.9%, Kabasakal & Girli, 2012; 0%, Yiğitalp 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., Yiğitalp et al., 2007), which has been shown to result in lower prevalence rates than more differentiated forms of assessment (cf., 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., Yiğitalp et al., 2007) to no limitation at all (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 dataset 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. Additionally, 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 and 29 male), bisexual (68 female and 25 male), or did not indicate their sexual orientation (1 female and 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, higher number of sexual partners). At the same time, the non-heterosexual participants were not a homogeneous group, differing in sexual behavior patterns (e.g., gay/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 *ns* of these groups and would not have yielded reliable conclusion. 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 18-29 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 non-coital 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 and 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; Krahe & Berger, 2013) which was originally developed in Germany and subsequently used and validated in cross-cultural research conducted in 10 European countries (Krahe et al., 2015, 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 X three victim perpetrator constellations X 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* (1x), or *more than once* (>1) experienced or committed the particular sexual act in two time periods: (a) in the last 12 months and (b) since the age of 15 (the age of consent¹⁵) 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 15¹⁶. Setting the lower age limit at the age of consent is necessary to separate sexual aggression, defined as non-consensual 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.

¹⁵ In Turkey, any form of sexual activity with a person under 15 is considered child sexual abuse. Consensual sexual intercourse with a person between 15-17 years can only be prosecuted upon complaint. By contrast, prosecution will be executed, regardless of complaint, if a marriage between the offender and the victim is prohibited by law or if the offender was considered to take care of the victim (e.g., due to adoption or foster care).

¹⁶ The two time periods were necessary because this study was part of a longitudinal study. Only data from the first wave are used for this paper.

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, 2015). 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 non-victims (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, $\chi^2(1, N = 1,326) = 4.99, p = .025$.

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	Coercive Strategy						Total Relationship (at least one >=1 per row)	
	Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		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.

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; last 12 months) were highly similar. The prevalence rates for each time period are presented in the Appendix 2 (victimization since the age of 15 up to 12 months ago) and Appendix 3 (victimization in the last 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 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, $\chi^2(5, N = 1,365) = 46.23, p < .001$. 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.

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: *** $p < .001$.

Additionally, 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-Muslims¹⁷ (78.0%) than among Muslims (61.4%), $\chi^2(1, N = 987) = 29.40, p < .001$. 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, $\chi^2(1, N = 1,339) = 42.19, p < .001$. 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, $\chi^2(1, N = 1,328) = 34.08, p < .001$ for physical force, $\chi^2(1, N = 1,317) = 27.06, p < .001$ for exploitation of the inability to resist, and $\chi^2(1, N = 1,315) = 14.33, p < .001$ 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, $\chi^2(1, N = 1,338) = 31.52, p < .001$ for (ex-) partners, $\chi^2(1, N = 1,336) = 33.43, p < .001$ for friends or acquaintances, and $\chi^2(1, N = 1,337) = 17.54, p < .001$ 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 last 12 months).

¹⁷ 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 the Age of 15, N = 1,339 (n_f = 865, n_m = 474)

Victim – Perpetrator Relationship	Coercive Strategy								Total Relationship (at least one >=1 per row)	
	Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		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	3.0***	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 >=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 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, $\chi^2(5, N = 1,339) = 45.04, p < .001$. 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.

Table 4

Prevalence of Sexual Aggression Perpetration Since the Age of 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: *** $p < .001$.

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%).

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 vs. 14.2% perpetration for women, 65.5% vs. 28.9% for men, $ps < .001$). 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 (cf., 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; Eşsizoğlu, Yasan, Yildirim, Gurgun, & 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, Andruuff, & 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 and countries (Kabasakal & Girli, 2012; Krahe et al., 2014, for a review), 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 only assessed forced sexual contacts 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 last 12 months using the revised Conflict Tactics Scale (CTS2, Straus, Hamby, Sherry, 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) only included 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 (Bıkmaz & 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. In addition, traditional gender roles, which are discussed as predictors of sexual aggression perpetration (Shen, Chiu, & Gao, 2012), 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 (Boratav & Çavdar, 2012). This means that there is a 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 life style (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 live up 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, Gündoğar, 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 nonconsent. 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 (Kolivas & Gross, 2007, for a review; Krahe & 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 vs. victim) than of gender (female victims vs. 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 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 & Krahe, 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 (see Peterson et al., 2011, for a review). 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 (Krahe 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 which used the same instrument (SAV-S, Krahe & Berger, 2013) found a similar pattern in some countries (for sexual victimization, Tomaszewska & Krahe, 2015), but not in others (Krahe & Berger, 2013; Krahe 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 each other than among strangers, consistent with past Turkish and international research (e.g., Black et al., 2011; Yigitalp et al., 2007).

Strengths and Limitations

We believe our study has several strengths. First, we were able to recruit a large student sample from four different 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 have to 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 life style, 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 non-representative 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 (Rothman, Exner, & Baughman, 2011, for a review). Third, our findings indicated that alcohol was involved in a great part 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 between innocuous and harmful levels of alcohol consumption in the context of sexual interactions.

In conclusion, the present study provided a first extensive dataset 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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Table 1_App.

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), $N = 1,365$ ($n_f = 878$, $n_m = 487$)

Victim – Perpetrator Relationship	Sexual Activity	Coercive Strategy						Overall (at least one >=1 per row)
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		
		Women	Men	Women	Men	Women	Men	
(Ex-)Partner	Touching	52.0	48.3	23.3	22.8	18.5	16.1	53.8
	Attempted sex. inter.	34.1	35.3	14.7	16.5	14.0	12.3	40.2
	Completed sex. inter.	18.2***	26.8***	7.3**	12.5**	6.8	8.4	30.0***
	Other (e.g., oral sex)	30.2	32.2	9.9	12.0	9.0	9.2	35.7
Total (Ex-)Partner		57.7	50.6	24.8	23.2	20.1	17.4	55.4
Friend/Acquaintance	Touching	39.8	35.5	23.2	19.1	10.0	12.0	38.4
	Attempted sex. inter.	15.1	20.3	9.3	12.6	3.9**	7.5**	23.5
	Completed sex. inter.	4.8***	13.0***	3.2***	8.1***	0.9***	4.5***	15.5***
	Other (e.g., oral sex)	8.6**	14.6**	4.2**	8.3**	1.9**	4.7**	16.7**
Total Friend/Acquaintance		41.2	36.7	23.6	19.4	10.3	12.2	39.6
Stranger	Touching	36.0**	26.7**	18.8	15.1	8.3	7.9	30.5**
	Attempted sex. inter.	7.8***	14.4***	5.3**	10.2**	2.2***	6.0***	18.5***
	Completed sex. inter.	2.8***	10.5***	1.6***	7.6***	0.7***	3.2***	13.0***
	Other (e.g., oral sex)	3.4***	11.5***	2.5***	7.9***	1.3**	3.4**	14.4***
Total Stranger		36.2**	27.6**	18.9	15.3	8.5	8.2	31.1**
Total Coercive Strategy		73.8***	62.1***	40.5**	31.9**	26.9	21.4	65.5***

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

Table 2_App.

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_f = 864, n_m = 481)

Victim – Perpetrator Relationship	Sexual Activity	Coercive Strategy						Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
		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.

Table 3_App.

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

Victim – Perpetrator Relationship	Sexual Activity	Coercive Strategy						Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
		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***	2.9***	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.

Table 4_App.

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 (Ex-)Partner	Sexual Activity	Coercive Strategy						Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
		Women	Men	Women	Men	Women	Men		
Total (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***	9.3***
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***
Stranger	Touching	3.0***	9.8***	1.8***	6.9***	0.6**	2.4**	4.4***	13.1***
	Attempted sex. inter.	1.5***	5.1***	0.9***	4.5***	0.2**	1.7**	2.2***	7.0***
	Completed sex. inter.	0.1***	3.0***	0.2***	2.8***	0.2**	1.5**	0.6***	4.2***
	Other (e.g., oral sex)	0.1**	1.5**	0.2***	2.2***	0.5	1.3	0.8**	3.0**
Total Coercive Strategy	Touching	1.5***	5.1***	0.9***	5.2***	0.5	1.9	2.4***	7.2***
	Attempted sex. inter.	10.0***	21.7***	6.2***	15.0***	3.7***	8.6***	14.2***	28.9***
	Completed sex. inter.								
	Other (e.g., oral sex)								

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

Table 5_App.

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)

Victim – Perpetrator Relationship	Sexual Activity	Coercive Strategy										Overall (at least one >=1 per row)
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure		Overall				
		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***	3.9***			
	Completed sex. inter.	0.1	1.1	0.1**	1.8**	0.1	1.1	0.2***	2.4***			
	Other (e.g., oral sex)	0.4	1.3	0.1**	1.6**	0.1	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.

Table 6_App.

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

Victim – Perpetrator Relationship	Sexual Activity	Coercive Strategy						Overall (at least one >=1 per row)	
		Use/Threat of Physical Force		Exploitation of Inability to Resist		Verbal Pressure			
		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.

9. Predicting Sexual Victimization Among College Students in Chile and Turkey: A Cross-Cultural Analysis¹⁸

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Abstract

To address the shortage of cross-cultural research on vulnerability factors of sexual victimization, this two-wave longitudinal study examined predictors of sexual victimization among female and male college students in Chile ($N = 1,098$) and Turkey ($N = 885$). These two countries were selected based on theoretical considerations regarding religiosity and gender inequality. A path model was tested that conceptualized participants' risky scripts for consensual sex, risky sexual behavior, sexual self-esteem, refusal assertiveness, and religiosity at T1 as predictors of sexual victimization in the following 12 months, as assessed at T2, mediated through past experiences of sexual victimization. As predicted, more risky sexual scripts were linked to more risky sexual behavior and lower refusal assertiveness, indirectly increasing the odds of sexual victimization at T2 in both countries. Low sexual self-esteem predicted a higher probability of sexual victimization at T2 through lower refusal assertiveness as well as through more risky sexual behavior in both the Chilean and Turkish sample. High religiosity in Chile, a Christian country, and Turkey, a Muslim country, indirectly decreased the vulnerability to sexual victimization at T2 through less risky sexual scripts, and less risky sexual behavior. In the Turkish sample only, high religiosity increased the vulnerability to sexual victimization at T2 through lower sexual self-esteem. The findings show that risky sexual scripts played a central role in the prediction of sexual victimization in both cultures, which has implications for prevention efforts.

Keywords: Sexual Victimization, Sexual Scripts, Religiosity, Chile, Turkey

Predicting Sexual Victimization Among College Students in Chile and Turkey:
A Cross-Cultural Analysis

International research on sexual victimization has revealed alarmingly high prevalence rates, particularly in college student samples (e.g., Chan, Straus, Brownridge, Tiwari, & Leung, 2008; Krahe et al., 2015). A broad evidence base on the prevalence of sexual victimization has been established for North American and Western European countries (see Fedina, Holmes, & Backes, 2016; Krahe, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014, for reviews). However, evidence from developing countries as well as cross-cultural research is lacking, even though sexual violence is regarded as a worldwide problem (WHO, 2013). Notably, there is a shortage of systematic research on vulnerability factors of sexual victimization from countries other than the U.S., including Chile (see Schuster & Krahe, 2017a, for a review) and Turkey (see Schuster & Krahe, 2017b, for a review), which leaves the question of cultural influences unanswered. Thus, it is necessary to address this gap in the current literature. Based on the theory of sexual scripts and previous evidence on the role of religiosity and sexuality-related cognitions and behavior, the purpose of the present study was to examine a prospective model of vulnerability factors of sexual victimization. College students in Chile and Turkey participated in a two-wave longitudinal study in which risky scripts for consensual sex, risky sexual behavior, sexual self-esteem, refusal assertiveness, and religiosity were measured at T1 to predict sexual victimization in the following 12 months, as assessed at T2, mediated through victimization experiences at T1.

The selection of the two countries was based on theoretical considerations relevant to sexual behavior and the prevalence of sexual aggression: In both countries, religious beliefs play an important role, however they differ in their manifestations. Chile is traditionally a Catholic country with a growing Protestant community, whereas Turkey is a predominantly Sunni Muslim country. At the same time, Chile and Turkey are similar in their degree of gender inequality (United Nations Development Programme, 2016), with both countries scoring lower than North American and Western European nations. Gender inequality is discussed as a factor that may be either positively or negatively associated with levels of sexual aggression in a society (see Martin, Vieraitis, & Britto, 2006, for an overview). Based on these considerations, Chile and Turkey offer themselves for a comparative cross-cultural analysis, as both countries differ from Western societies in lower gender equality and a greater strength of religious commitment, yet differ between them in the denomination in which this commitment is rooted.

The aim of our analysis was to examine whether vulnerability factors of sexual victimization established mainly in Western societies would hold as predictors of sexual victimization in Turkey and Chile. Evidence to that effect would further strengthen the theoretical conceptualization of vulnerability factors identified in previous research and demonstrate longitudinal pathways in the two selected countries for the first time.

Past research, primarily in the U.S. and Western Europe, has identified a number of vulnerability factors, defined as factors associated with an increased probability of experiencing sexual victimization (see Ullman & Najdowski, 2011, for a review). We use the term vulnerability factors rather than risk factors to emphasize that victims are not assigned any causal role or could be blamed for the assault. The goal of this line of research is to understand the variables that may make the experience of sexual assault more likely, which can serve to identify evidence-based approaches for the reduction of sexual victimization (Krahé, 2013; Ullman & Najdowski, 2011).

In the present study, we introduce and evaluate a model conceptualizing the vulnerability to sexual victimization based on the construct of sexual scripts. We propose that scripts for consensual sexual encounters play a key role in understanding sexual victimization. We examine how sexual scripts are linked to sexual behavior and, indirectly, to sexual victimization and how sexual scripts are shaped by socio-cultural variables, specifically religiosity. Finally, we examine sexual scripts and their translation into sexual behavior in relation to other influential cognitive (sexual self-esteem) and behavioral (sexual assertiveness) constructs that potentially predict sexual victimization. The elements of our theoretical model are explained in the following sections.

Risky Sexual Scripts and Risky Sexual Behavior as Predictors of Sexual Victimization

Sexual scripts are mental representations of prototypical sequences of events and characteristics of sexual interactions (Simon & Gagnon, 1986). They comprise both descriptive knowledge and normative beliefs and are shaped by cultural context (Krahé, Bieneck, & Scheinberger-Olwig, 2007; Simon & Gagnon, 1986). In particular, they provide guidelines for sexual behavior, for example, on appropriate sexual activity or partners. In the present study, scripts for consensual sexual encounters as well as sexual behaviors are defined as “risky” to the extent that they contain features that have been conclusively linked to an increased vulnerability to unwanted sexual experiences. There is strong empirical evidence that the following features in the sexual behavior of both women and men are linked to an increased

vulnerability to sexual victimization: (1) ambiguous communication of sexual intentions, (2) alcohol consumption in sexual activities, and (3) engaging in casual sex (D'Abreu & Krahe, 2016; Krahe et al., 2007; Tomaszewska & Krahe, 2016). Scripts that contain these elements as prototypical features of consensual sexual interactions are therefore expected to predict a higher probability of sexual victimization via their influence on sexual behavior. Previous studies in Germany, Brazil, and Poland have supported these associations both cross-sectionally and prospectively (D'Abreu & Krahe, 2016; Krahe et al., 2007; Tomaszewska & Krahe, 2016).

The ambiguous communication of sexual intentions refers to sending out and/or perceiving unclear messages about a person's willingness to engage in sexual interactions with a partner. There is evidence from Western Europe as well as the U.S. that ambiguous communication of sexual intentions as part of sexual scripts and sexual behavior in consensual interactions is associated with a higher likelihood of sexual victimization (Krahe et al., 2007; Kuyper et al., 2013; Shotland & Hunter, 1995).

The second vulnerability factor is alcohol consumption in sexual situations. Studies, mostly from the U.S. and Western Europe, have consistently shown that alcohol use by the victim, the perpetrator, or both is involved in about half of all incidents of sexual aggression (see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004, for a review; see Lehrer, Lehrer, & Koss, 2013, for a Chilean sample) and is linked to a higher vulnerability to sexual victimization among women and men (Kuyper et al., 2013).

Finally, at the level of sexual behavior patterns, having multiple partners has been shown to be associated with sexual victimization in Western countries (e.g., Flack et al., 2007; Santos-Iglesias & Sierra, 2012; Testa, Hoffman, & Livingston, 2010). A high level of sexual activity, reflected for example in having multiple sexual partners or hook-up experiences, increases the probability of meeting someone who is likely to engage in sexual aggression.

Based these findings, we assume that if these behaviors are defining features of individuals' cognitive scripts for consensual sexual interactions, they will be more likely to engage in risky sexual behavior, which in turn is associated with an increased vulnerability to sexual victimization.

Low Sexual Self-Esteem and Sexual Assertiveness as Vulnerability Factors of Sexual Victimization

A large body of cross-sectional and longitudinal studies, again mostly from the U.S. and Western Europe, identified both low sexual self-esteem and low sexual assertiveness as vulnerability factors of sexual victimization (e.g., Franz, DiLillo, & Gervais, 2016; Krahé & Berger, 2017b). Sexual self-esteem is defined as the sexuality-related perception of one's own behavior, feelings, and thoughts (Zeanah & Schwarz, 1996), whereas sexual assertiveness refers to behavioral strategies to achieve sexual autonomy (Morokoff et al., 1997). In particular, refusal assertiveness, defined as the ability to reject unwanted sexual advances (Morokoff et al., 1997), seems to reduce the risk of victimization (Krahé et al., 2015; Livingston, Testa, & VanZile-Tamsen, 2007). Although most research on these constructs has been conducted with all-female samples, recent studies demonstrated the protective function of high sexual self-esteem and sexual assertiveness also for men (Krahé et al., 2015; Tomaszewska & Krahé, 2016).

Furthermore, studies have shown that sexual self-esteem and sexual assertiveness are linked to each other (Brassard, Dupuy, Bergeron, & Shaver, 2015; Ménard & Offman, 2009). Additionally, how assertively women or men behave in a sexual encounter may be influenced by their sexual scripts (Santos-Iglesias, Vallejo-Medina, & Sierra, 2014), but this assumption has not yet been tested empirically. An inconsistent picture emerges for the association between sexual self-esteem and risky sexual behavior: Some studies have shown a positive link between sexual self-esteem and safer sexual behavior, mainly defined as contraceptive use (e.g., Adler & Hendrick, 1991), whereas another study did not find an association with risky sexual behavior, including alcohol use, ambiguous communication of sexual intentions, and casual sex (Krahé & Berger, 2017a).

On conceptual grounds, we hypothesized that low sexual self-esteem would be linked to lower refusal assertiveness and more risky sexual behavior, indirectly increasing the vulnerability to sexual victimization. Furthermore, we predicted that risky sexual scripts would indirectly increase the vulnerability to sexual victimization through lower refusal assertiveness.

Religiosity as an Indirect Predictor of Sexual Victimization

Research linking religiosity to sexuality-related cognitions and behavior has mostly been conducted with Christian samples, leaving the impact of other religions, particularly Islam, unaddressed. The available literature suggests that both Christian and Muslim religious beliefs

and norms shape sexual scripts and sexual behavior. For example, higher religious involvement was associated with more conservative sexual attitudes (Ahrold, Farmer, Trapnell, & Meston, 2011; Duyan & Duyan, 2005) and fewer sexual partners (Boratav & Cavdar, 2012; Pedersen, 2014).

With respect to the impact of religiosity on sexual self-esteem and sexual assertiveness, findings are inconsistent and refer exclusively to samples from countries with a Christian tradition. For sexual self-esteem, one U.S. study reported a nonsignificant link with religiosity for the whole sample, but a negative association for a subsample with Catholic upbringing (Abbott, Harris, & Mollen, 2016). In another study conducted in Poland (Tomaszewska & Krahé, 2016), the link between religiosity and sexual self-esteem was nonsignificant. For sexual assertiveness, a negative correlation with religiosity was found in one study (Curtin, Ward, Merriwether, & Caruthers, 2011), whereas in another this link was nonsignificant (Schooler, Ward, Merriwether, & Caruthers, 2005), although both studies used similar samples from the U.S.

Furthermore, Tomaszewska and Krahé (2016) have shown that in their predominantly Roman Catholic sample of college students in Poland, high religiosity was associated with less risky sexual scripts, indirectly decreasing the students' vulnerability to sexual victimization. However, unexpectedly, no significant associations were found between religiosity and risky sexual behavior, including alcohol use, ambiguous communication of sexual intentions, and casual sex. This finding is contrary to the study by Smith (2015) with Hispanic women in the U.S., in which high religious commitment was associated with less risky sexual behavior, defined, for example, by having multiple sexual partners, early sexual debut, and alcohol or drug use.

Based on previous evidence, we predicted that high religiosity would be negatively associated with risky sexual scripts and risky sexual behavior, indirectly decreasing the vulnerability to sexual victimization. At the same time, we hypothesized that high religiosity would increase the vulnerability to sexual victimization via lower sexual self-esteem and lower refusal assertiveness. We expected these relationships to hold in both Turkey as an Islamic and Chile as a Catholic country.

The Role of Repeated Sexual Victimization

A large and consistent body of research has shown that individuals who were victimized in the past have a heightened vulnerability to sexual re-victimization (see Ullman & Najdowski,

2011, for a review). In a sample of male and female college students in Germany, a recent study by Krahe and Berger (2017b) demonstrated that sexual victimization since the age of consent, assessed at the start of university (T1), predicted sexual victimization at the end of the first (T2) and the second year (T3). In addition, sexual victimization at T2 increased the vulnerability to sexual victimization at T3, indicating a cycle of victimization. Hence, in the present study, we assumed that prior sexual victimization would increase the vulnerability to sexual re-victimization.

The Current Study

There is clearly a shortage of cross-cultural evidence on the prevalence and predictors of sexual victimization. To date, no prospective study has addressed predictors of sexual victimization in samples from Chile (see Schuster & Krahe, 2017a, for a review) or Turkey (see Schuster & Krahe, 2017b, for a review) or conducted a cross-cultural comparison, linking evidence from these samples to findings from studies in Western industrialized countries. To address this gap, the present study examined vulnerability factors of sexual victimization in a two-wave longitudinal sample of female and male college students in Chile and Turkey. Our proposed model is displayed in Figure 1. Risky sexual scripts, risky sexual behavior, sexual self-esteem, refusal assertiveness, and religiosity assessed at T1 were included as predictors of sexual victimization 12 months later at T2, mediated through sexual victimization at T1. Sexual victimization at T1 referred to the period since the age of consent, that is since the age of 15 in Turkey and the age of 14 in Chile¹⁹; the time frame for the second data was the last 12 months in both countries.

Building on the empirical findings reviewed above, we expected paths from risky sexual scripts via risky sexual behavior and via lower refusal assertiveness to sexual victimization at T1 and T2. Despite inconsistent findings from past research, we hypothesized that low sexual self-esteem would indirectly increase the likelihood of sexual victimization at T1 and T2 through lower refusal assertiveness and through more risky sexual behavior. With respect to religiosity, we predicted that high religiosity would indirectly decrease the

¹⁹ In Turkey, sexual activities with a minor under 15 years are legally considered child sexual abuse, where consent is not an issue. Sexual contacts with a person between 15 and 17 years of age are prosecuted if the perpetrator exploited a relationship of care or if marriage between victim and offender is forbidden by law. Consensual sexual activities with adolescents between 15 and 17 years can only be prosecuted on complaint. In Chile, child sexual abuse includes sexual activities with a person under 14 years. The legal age of consent for heterosexual and lesbian sexual activities is 14, for male homosexual sexual activities, it is 18. Age of consent is raised to 18 years if it involves a relationship of care or an exploitation of the adolescent's mental disturbance, neglect, or sexual inexperience.

vulnerability to sexual victimization at T1 and T2 through less risky sexual scripts and less risky sexual behavior, but indirectly increase the vulnerability through lower sexual self-esteem and lower refusal assertiveness. All paths were proposed to hold for both the Chilean and Turkish sample as well as for women and men, but potential differences as a function of gender and culture were addressed in the analyses.

Method

Participants

The initial samples at T1 consisted of $N = 1,310$ participants (988 women, 322 men) recruited from five private and public universities in Santiago Metropolitan and Valparaíso Region, Chile, and $N = 1,593$ participants (1,010 women, 583 men) recruited from four public universities in Ankara, Turkey. Because the focus of the study was on young adults, participants aged under 18 years or 30 years and above were excluded ($n_{\text{Chile}} = 47$, $n_{\text{Turkey}} = 76$). Participants without coital experience were also excluded from the sample ($n_{\text{Chile}} = 165$, $n_{\text{Turkey}} = 632$) because the measure of risky sexual behavior was related to sexual intercourse, as described below. This resulted in a reduced sample at T1 of $N = 1,098$ participants (832 women, 266 men) in Chile and $N = 885$ participants (532 women, 353 men) in Turkey. Of these, $N = 404$ participants (323 women, 81 men) from the Chilean sample and $N = 268$ participants (170 women, 98 men) from the Turkish samples took part in the second data wave 12 months later (T2). In the analyses, all T1 participants were included, and missing data were handled using full information maximum likelihood (FIML) estimation, as described below.

The drop-out rate from T1 to T2 was 63.2% for the Chilean sample and 69.7% for the Turkish sample. This loss, particularly in the Turkish sample, was at least partly due to the high number of participants who did not provide an email address to be contacted for the second data wave (25.7% of the T1 Turkish sample). Although the study was anonymous and email addresses were recorded separately from the questionnaire responses, participants might still have had concerns about the anonymity of their data, considering the sensitive nature of this topic. Additionally, only a small incentive could be offered compared to studies with lower attrition rates (e.g., Livingston et al., 2007). In each sample, we performed separate logistic regression analyses with dropout after T1 as criterion and each T1 model variable (risky sexual scripts, risky sexual behavior, sexual self-esteem, refusal assertiveness, religiosity, sexual victimization, and gender) as predictor. To account for multiple tests, we applied a corrected alpha level of $p < .007$ ($.05/7$). We did not include all variables simultaneously because this

would have resulted in a loss of participants due to the listwise deletion of cases. No significant differences between those who stayed in the sample and those who dropped out after T1 were found on any of our model variables.

In Table 1, information about participants' nationality, mean age, and sexual experience background is presented. There was no age difference between the two samples. Age at first sexual intercourse was lower in the Chilean than in the Turkish sample, $t(1898) = -14.46, p < .001$, but the number of sexual partners (casual and steady) did not differ between the two samples. Regarding gender differences, in both samples, men reported more sexual partners ($M_{Chile} = 6.0, SD = 6.63; M_{Turkey} = 6.5, SD = 9.10$) than did women ($M_{Chile} = 4.3, SD = 6.87; M_{Turkey} = 4.3, SD = 7.33$), $ps < .01$.

Table 1

Participants' Demographics and Sexual Experience Background

	Chilean sample	Turkish sample
Mean age (T1)	$M = 22.1, SD = 2.61,$ range: 18 – 29	$M = 22.2, SD = 2.48$ range: 18 – 29
Nationality of respective country	98.8%	95.5%
Sexual orientation (T1)	89.3% heterosexual 5.7% bisexual 4.9% gay/lesbian	89.4% heterosexual 7.4% bisexual 3.3% gay/lesbian
Age at first sexual intercourse (T1)	$M = 17.1, SD = 2.25$	$M = 18.6, SD = 2.25$
Number of sexual partners (casual and steady) (T1)	$M = 4.7, SD = 6.85$	$M = 5.2, SD = 8.14$

Measures

Sexual victimization

To measure sexual victimization, we used the Sexual Aggression and Victimization Scale (SAV-S; Krahe & Berger, 2013) which had been previously employed and validated in cross-cultural research in 10 EU-countries (Krahe et al., 2015, 2016). The SAV-S 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 relationship constellations between the victim and the perpetrator are specified: (1) current or former partner, (2) friend or acquaintance, and (3) stranger. Within each relationship constellation, four sexual activities are presented: (1) sexual touch, (2) attempted sexual intercourse, (3) completed sexual intercourse, and (4) other sexual acts (e.g., oral sex). This results in a total of 36 items.

For each item, participants were asked if they had experienced the particular sexual act *never* (0), *once* (1), or *more than once* (> 1). At T1, responses were elicited (1) since the age of consent until 12 months ago, and (2) in the last 12 months. For the purpose of the present study, the two time windows at T1 were combined to yield a victimization score since the age of consent. At T2, participants were asked about sexual victimization in the last 12 months.

The online format of the survey enabled us to assign the participants to a tailored version of the SAV-S, depending on their gender and sexual orientation. Internal consistency and measurement invariance were not tested because these tests are based on the assumption that different items are interrelated, which is not appropriate for experiences of sexual victimization (see also Koss et al., 2007).

Risky sexual scripts

A composite measure of risky sexual scripts was employed at T1, combining descriptive and normative elements. The extent to which risk elements were part of sexual scripts was assessed by a scenario-based measure developed by Krahe et al. (2007). Participants were asked to imagine a first sexual intercourse with a new partner and to indicate to what extent the following features were characteristic of this situation: (1) ambiguous communication of sexual intentions (four items; example item: “How likely is it that you say ‘yes’ even though you do not want to have sex with her/him?”), (2) alcohol or drug consumption in the situation and degree of intoxication of both parties (six items; example item: “How drunk is the woman/man?”), and (3) length of previous acquaintanceship and engagement in casual sex (four items; example item: “How long have the two of you known each other before this evening?”, reverse coded). Response options for ambiguous communication, alcohol or drug use, and casual sex ranged from 1 (*very unlikely*) to 5 (*very likely*), for intoxication from 1 (*not at all*) to 5 (*totally*), and for the length of previous acquaintanceship from 1 (*not at all*) to 5 (*a*

few months or longer). Responses to the 14 items were averaged to create an overall score of descriptive script elements with an internal consistency of $\alpha = .78$ for the combined sample ($\alpha_{\text{Chile}} = .78$, $\alpha_{\text{Turkey}} = .75$).

The normative acceptance of risk elements in sexual scripts was measured by a 12-item-scale also developed by Krahe et al. (2007). Assessing the same risk features as for the risk elements in sexual scripts, four items referred to ambiguous communication of sexual intentions (example item: “It is part of the game for a woman to say ‘no’ at first when a man wants to have sex with her even though she wants it too”), two items addressed alcohol or drug consumption in the sexual situation (example item: “Drinking alcohol when meeting a man and having sex with him is part of the game”), and six items referred to engagement in casual sex (example item: “It is ok for a woman to have sex with a man on their first night out”). A five-point response scale was used, ranging from 1 (*completely disagree*) to 5 (*completely agree*). Responses were aggregated across the 12 items to form an index of the normative component of the sexual scripts. The scale demonstrated a good internal consistency of $\alpha = .82$ for the combined sample ($\alpha_{\text{Chile}} = .81$, $\alpha_{\text{Turkey}} = .82$). In the final step, an overall index of risky sexual scripts representing both the descriptive and normative part was created by multiplying the mean scores of both scales, with high scores indicating more risky sexual scripts. This procedure followed previous research using the script measure (e.g., Tomaszewska & Krahe, 2016).

Risky sexual behavior

Risky sexual behavior was assessed at T1 by eight items adapted from Krahe et al. (2007). Participants were asked to indicate the frequency with which they had shown the elements of the sexual scripts in their sexual behavior. Four items addressed the frequency of ambiguous communication of sexual intentions (example item: “How often did you say ‘yes’ without really wanting sex”), two items referred to the frequency of alcohol or drug consumption in the sexual situation (example item: “How often did you drink alcohol in situations where you had sexual intercourse?”), and one item referred to the frequency of casual sex (“How often did you sleep with a man/woman who you did not know well?”). Response options for these items ranged from 1 (*never*) to 5 (*always*). In addition, one item assessed the number of casual sex partners using an open-ended format. To create an overall index of risky sexual behavior, all variables were z-standardized before computing the mean score. Higher scores reflect more

risky sexual behavior. As for sexual victimization, testing internal consistency and measurement invariance is not appropriate for this measure.

Sexual self-esteem

Sexual self-esteem was measured at T1 by 11 items from the short form of the Sexual Self-Esteem Inventory by Zeanah and Schwarz (1996). For the present study, we used four items from the Control subscale (example item: “I feel physically vulnerable in a sexual encounter”; reverse coded), four items from the Adaptiveness subscale (example item: “I like what I learned about myself from my sexual experiences”), and three items from the Skill and Experience subscale (example item: “I feel good about my ability to satisfy my partner”). Responses were made on a five-point scale, ranging from 1 (*do not agree at all*) to 5 (*totally agree*), with higher scores indicating higher sexual self-esteem. The internal consistency for the combined sample was $\alpha = .77$ ($\alpha_{\text{Chile}} = .81$, $\alpha_{\text{Turkey}} = .74$).

Refusal assertiveness

To measure the ability to refuse unwanted sexual activities at T1, four items from the Refusal subscale of the Sexual Assertiveness Scale by Morokoff et al. (1997) were used (example item: “I refuse to have sex if I don’t want to, even if my partner insists”). Response options ranged from 1 (*never*) to 5 (*always*). Higher scores reflect greater self-reported ability to refuse unwanted sexual advances. The α for the combined sample was $.75$ ($\alpha_{\text{Chile}} = .71$, $\alpha_{\text{Turkey}} = .77$).

Religiosity

Religiosity was measured at T1 by two items. One item, taken from the U.S. National Alcohol Surveys (e.g., Michalak, Trocki, & Bond, 2007), covered the importance of religion in one’s life: “How important is religion in your life?”. The second item was previously used in the SHARE survey (Survey of Ageing, Health and Retirement in Europe; e.g., Levin, 2013) to measure religious upbringing: “Have you been educated religiously, for example, by your parents?”. Responses were made on a 10-point scale, ranging from 1 (*not at all*) to 10 (*very much*), with higher scores indicating higher religiosity. The internal consistency for the combined sample was $\alpha = .60$ ($\alpha_{\text{Chile}} = .56$, $\alpha_{\text{Turkey}} = .61$).

Procedure

Approval of the study protocol and all instruments was obtained from the Ethics Committee of the authors' home university as well as the collaborating universities in Chile and Turkey. The Spanish and Turkish versions of the questionnaire were created by careful back translation procedures, comprising the translation from the German or English original to Spanish/Turkish by native speakers of Spanish/Turkish and backwards by speakers fluent in the respective languages. A Spanish version of the SAV-S was already available which has previously been validated in Spain (Krahé et al., 2015, 2016). For the present study, small modifications in wording were made to this scale to adapt it to usage in Chilean Spanish.

The data were collected in an online survey entitled *Young Adults' Sexuality and Unwanted Sexual Contacts* during 2015 (T1) and 2016 (T2). The online format was chosen given the sensitive nature of the topic because participants were expected to have more trust in the confidentiality of their responses than paper-pencil administration or face-to-face interviews (Brock et al., 2015; DiLillo, DeGue, Kras, Di Loreto-Colgan, & Nash, 2006). To recruit participants in both countries at T1, the study was presented in classes and advertised in university groups in social media. In addition, flyers with the link for the study were distributed on campuses. In Chile, the study link was also sent out via institutional email lists. At T2, the study link was sent to all participants who provided an email address to be contacted for participation in the second wave when they submitted their T1 questionnaires. At each wave, the participants generated an individualized code, which was used to merge both measurement points.

The questionnaire was programmed such that participants were required to give active consent before being able to proceed to the items. As thinking about past victimization experiences may recall painful memories, we provided a "help button" on each page with questions about sexual victimization, which opened a new browser window with a list of local counseling agencies. At each data wave, participants were invited to take part in a raffle of gift cards in return for participation.

Plan of Analysis

Analyses of measurement invariance of the predictor variables and tests of the proposed path model were carried out with Mplus (version 7.4; Muthén & Muthén, 1998-2015). Measurement invariance (MI) is a precondition for meaningful comparisons across groups, in our case gender and countries, which was tested by comparing increasingly restrictive, hierarchically ordered

models. The three most important levels of invariance are: (1) configural invariance, indicating that the basic model configuration is invariant across groups; (2) metric invariance, indicating that factor loadings are invariant across groups; (3) scalar invariance, indicating that intercepts are invariant across groups. To determine differences between the models, Cheung and Rensvold (2002) suggested a ΔCFI equal to or smaller than $-.01$ as an indicator for measurement invariance. Configural, metric, and scalar invariance models were tested using the robust maximum likelihood (MLR) estimator. If full metric or scalar MI was not given, some of the parameters were allowed to vary across groups to establish partial metric or scalar MI (Vandenberg & Lance, 2000).

All participants who provided data at T1 were included in the analyses. Path models were examined using maximum likelihood estimation with robust standard errors (MLR), and missing data were handled by full information maximum likelihood (FIML) estimation, assuming a missing at random (MAR) mechanism. The FIML approach deals with missing data by using all observed information to produce the maximum likelihood estimation of model parameters. This procedure leads to unbiased parameter estimates and standard errors with data that are MAR and is superior to traditional approaches, such as list-wise or pairwise deletion (Enders, 2010).

In a first step, a multi-group analysis by gender was conducted separately in the Chilean and Turkish sample: The constrained model, in which all paths were constrained to be equal for women and men, was compared to an unconstrained model, in which all paths were allowed to vary between women and men, using the Satorra-Bentler scaled chi-square difference test. In a second step, we conducted multi-group models by country (Chilean vs. Turkish sample), comparing the constrained and unconstrained models. Based on the findings from the first step that gender was not a moderator, gender was included as a covariate in the multi-group models by country to take the gender differences in the mean scores of the predictor variables into account. Indirect effects were computed using the Mplus MODEL INDIRECT option. To test the significance of both direct and indirect paths, 95% and 99% confidence intervals were calculated through 10,000 bias-corrected bootstrap replications. As the bootstrap procedure is not available using MLR estimation, the maximum likelihood (ML) estimator was used for these analyses. Path coefficients were compared across groups through post-hoc tests using the Mplus MODEL CONSTRAINT option. To account for multiple comparisons, the 99% confidence interval was computed to examine the differences.

Results

Prevalence and Severity of Sexual Victimization

The rate of participants in the Chilean sample who reported at least one incident of sexual victimization was 53.6% (53.8% of women, 53.0% of men) at T1 and 33.7% (32.5% of women, 38.3% of men) at T2. No significant gender difference was found at the two measurement points, $\chi^2_{T1} (1, N = 1,097) = 0.05, p = .824$, $\chi^2_{T2} (1, N = 404) = 0.96, p = .326$. In the Turkish sample, 78.2% of the participants (84.5% of women, 68.8% of men) reported at least one incident at T1, and 66.9% (67.9% of women, 65.1% of men) reported at least one experience in the last twelve months at T2. The gender difference was significant at T1, $\chi^2_{T1} (1, N = 882) = 30.49, p < .001$, but not at T2, $\chi^2_{T2} (1, N = 248) = 0.20, p = .656$. Comparing victimization rates across countries, the prevalence rates were significantly higher in Turkey than in Chile at both measurement points, $\chi^2_{T1} (1, N = 1,979) = 129.66, p < .001$, $\chi^2_{T2} (1, N = 652) = 68.42, p < .001$.

For the path analysis, a score of sexual victimization was created based upon the scoring proposed by Koss et al. (2007) in which participants were categorized according to the most severe form of victimization reported. This categorization differentiates between (1) no victimization, (2) sexual contact, (3) attempted coercion, (4) coercion, (5) attempted rape, and (6) rape. Because prevalence rates were zero for some categories, the six categories were subsequently collapsed into three groups for the path analyses: (1) *no victimization*, (2) *sexual coercion*, consisting of the categories sexual contact, attempted sexual coercion, and sexual coercion, and (3) *attempted rape and rape*. Prevalence rates of sexual victimization according to this classification, broken down by data wave, country, and gender, is presented in Table 2. A detailed description of the prevalence rates at T1, broken down by coercive strategies, victim-perpetrator relationship, and sexual activities, is presented in Schuster, Krahe, Ilabaca Baeza, and Muñoz-Reyes (2016) for Chile and in Schuster, Krahe, and Toplu-Demirtaş (2016) for Turkey.

Table 2

Prevalence of Sexual Victimization in Percent at Both Measurement Points, Broken Down by Country and Sex

	T1				T2			
	Chilean sample		Turkish sample		Chilean sample		Turkish sample	
	f	m	f	m	f	m	f	m
No victimization ¹	46.2	47.0	15.5***	31.3***	67.5	61.7	32.1	34.9
Sexual coercion ²	14.2	12.4	20.4***	9.1***	12.4	12.3	13.3	10.8
Rape and attempted rape ³	39.6	40.6	64.1	59.7	20.1	25.9	54.5	54.2

Note: f = female, m = male; ¹participants who did not endorse any victimization items; ²participants who reported at least one incident of sexual touching without penetration, or of attempted oral, vaginal, or anal penetration through verbal pressure, or of completed oral, vaginal, or anal penetration through verbal pressure but no attempted rape or rape; ³ participants who reported at least one incident of attempted oral, vaginal, or anal penetration through the use or threat of physical force or the exploitation of the victim's inability to resist or of completed oral, vaginal, or anal penetration through the use or threat of physical force or the exploitation of the victim's inability to resist; *** $p < .001$.

Measurement Invariance, Descriptive Statistics, and Correlations of Predictors

Measurement invariance was tested across countries and gender. Scalar or at least partial scalar MI was established for all tested predictors, except for religiosity. This variable was measured by two items resulting in an under-identified, untestable model (Kline, 2011). The fit indices and model comparisons are presented in the Appendix.

Means and standard deviations of all predictors, separately for each country and gender group, are displayed in Table 3. Additionally, the table shows the correlation coefficients for both the Chilean and Turkish sample.

Table 3

Means and Correlations of Predictors at T1

Construct	Range	Chilean sample			Turkish sample							
		M (SD)	M _f (SD)	M _m (SD)	M (SD)	M _f (SD)	M _m (SD)	(1)	(2)	(3)	(4)	(5)
(1) Risky sexual scripts T1	1-25	6.68 (2.75)	6.29*** (2.64)	7.88*** (2.75)	8.52 (3.12)	8.06*** (3.00)	9.21*** (3.17)	-	.45***	.18***	-.16***	-.33***
(2) Risky sexual behavior ¹ T1	-	-0.07 (0.55)	-0.12*** (0.52)	0.06*** (0.60)	0.09 (0.56)	0.03*** (0.48)	0.18*** (0.66)	46.***	-	.01	-.20***	-.10**
(3) Sexual self-esteem T1	1-5	4.03 (0.58)	4.05 (0.57)	3.95 (0.62)	3.92 (0.61)	3.88 (0.63)	3.98 (0.57)	-0.03	-.08*	-	.07*	-.18***
(4) Refusal assertiveness T1	1-5	3.67 (0.96)	3.81*** (0.91)	3.24*** (0.99)	3.24 (1.00)	3.54*** (0.90)	2.79*** (0.98)	-.19***	-.29***	.22***	-	-.05
(5) Religiosity T1	1-10	5.57 (2.59)	5.68 (2.64)	5.22 (2.41)	3.82 (2.42)	3.81 (2.39)	3.84 (2.48)	-.25***	-.09**	.04	.03	-

Note: ¹z-standardized; f = female, m = male. Above the diagonal: correlation coefficients for Turkey; below the diagonal: correlation coefficients for Chile. Means and correlation coefficients in bold are significantly different between Chile and Turkey ($p < .01$ for means and $p < .005$ for correlation coefficients). P-values for gender differences and correlation coefficients: * $p < .05$, ** $p < .01$, *** $p < .001$.

Differences between the Chilean and Turkish sample were tested through separate one-way analyses of variance instead of a multivariate analysis of variance, which uses listwise deletion, to deal with missing data. To account for multiple comparisons, a corrected alpha level of $p < .01$ (.05/5) was used. Chilean participants scored higher on sexual self-esteem, $F(1, 1979) = 15.15, p < .001$, refusal assertiveness, $F(1, 1980) = 94.72, p < .001$, and religiosity, $F(1, 1975) = 235.98, p < .001$, compared to Turkish participants. By contrast, Turkish participants had more risky sexual scripts, $F(1, 1979) = 193.76, p < .001$, and reported more risky sexual behavior, $F(1, 1925) = 41.67, p < .001$, than did Chilean participants. In each country, gender differences were tested, again using a corrected alpha level of $p < .01$ (.05/5). In both samples, men indicated more risky sexual scripts ($F_{\text{Chile}} [1, 1094] = 71.54, p < .001$; $F_{\text{Turkey}} [1, 883] = 29.69, p < .001$) and more risky sexual behavior ($F_{\text{Chile}} [1, 1077] = 21.69, p < .001$; $F_{\text{Turkey}} [1, 846] = 15.72, p < .001$) than did women, and women reported higher refusal assertiveness than did men ($F_{\text{Chile}} [1, 1096] = 73.64, p < .001$; $F_{\text{Turkey}} [1, 882] = 136.19, p < .001$).

Significant bivariate correlations were found between the majority of predictors (see Table 3). As expected, risky sexual scripts were positively correlated with risky sexual behavior and negatively correlated with refusal assertiveness and religiosity in both samples. Furthermore, risky sexual behavior correlated negatively with refusal assertiveness and religiosity, and a positive correlation was found between sexual self-esteem and refusal assertiveness. However, religiosity and refusal assertiveness were uncorrelated. In the Chilean but not in the Turkish sample, a negative correlation was found between sexual self-esteem and risky sexual behavior. In the Turkish sample only, sexual self-esteem correlated positively with risky sexual scripts and negatively with religiosity.

Hypothesis-Testing: Prediction of Sexual Victimization at T2

The path model for the prediction of sexual victimization is displayed in Figure 1. First, we tested separate multi-group models to examine potential moderating effects of gender in the Chilean and Turkish samples. The constrained models, in which all paths were constrained to be equal for women and men, yielded a good fit with the data; for the Chilean sample, $\chi^2(24, N = 1,092) = 27.909, p = .264, \text{TLI} = 0.989, \text{CFI} = 0.994, \text{RMSEA} = 0.017$ 90% CI [.000, .040], for the Turkish sample, $\chi^2(24, N = 885) = 35.164, p = .066, \text{TLI} = 0.958, \text{CFI} = 0.976, \text{RMSEA} = 0.032$ 90% CI [.000, .054]. Next, a model in which all paths were allowed to vary between women and men was estimated for each country. Again, the model fit was good; for the Chilean sample, $\chi^2(6, N = 1,092) = 4.640, p = .591, \text{TLI} = 1.015, \text{CFI} = 1.000, \text{RMSEA} = 0.000$ 90%

CI [.000, .048], for the Turkish sample, $\chi^2(6, N = 885) = 11.591, p = .071$, TLI = 0.915, CFI = 0.988, RMSEA = 0.046 90% CI [.000, .085]. Finally, the constrained and unconstrained models were compared using the Satorra-Bentler scaled chi-square difference test. This comparison showed that the model fit of the unconstrained model was not significantly better than the model fit of the constrained model, for the Chilean sample, $\chi^2(18) = 23.090, p = .187$, for the Turkish sample, $\chi^2(18) = 23.678, p = .166$, indicating that the paths held equally for men and women.

In a second step, a multi-group model by country was specified in which gender was included as covariate to account for gender differences in the level of our constructs. The constrained model yielded an acceptable model fit, $\chi^2(31, N = 1,983) = 107.717, p < .001$, TLI = 0.899, CFI = 0.944, RMSEA = 0.050 90% CI [.040, .060]. The unconstrained model revealed a good fit with the data, $\chi^2(6, N = 1,983) = 8.649, p = .194$, TLI = 0.982, CFI = .998, RMSEA = 0.021 90% CI [.000, .050]. The unconstrained model fitted significantly better than did the constrained model, $\chi^2(25) = 98.082, p < .001$. Therefore, the unconstrained multi-group model by country was adopted as the final model. Figure 1 depicts the standardized path coefficients, and Table 4 presents the hypothesized indirect paths to sexual victimization at T2 for both the Chilean and Turkish sample. A complete table with all indirect paths can be requested from the first author.

As shown in Figure 1, and in line with our prediction, more risky sexual scripts predicted more risky sexual behavior and indirectly increased the likelihood of sexual victimization at T2 via risky sexual behavior and sexual victimization at T1 among both Chilean and Turkish participants. More risky sexual scripts were also linked to lower levels of refusal assertiveness in both samples and thereby increased the probability of sexual victimization at T2 via lower refusal assertiveness and past experience of sexual victimization, consistent with our prediction.

Also consistent with our hypotheses, lower sexual self-esteem was linked to higher scores on the sexual victimization measure at T2 through two pathways in both the Chilean and the Turkish samples: via lower refusal assertiveness and sexual victimization scores at T1 and via more risky sexual behavior and sexual victimization scores at T1.

As expected, religiosity was negatively linked to risky sexual scripts and indirectly decreased the vulnerability to sexual victimization at T2 via less risky sexual scripts, less risky sexual behavior, and a lower likelihood of sexual victimization at T1 in both countries. The hypothesized path from religiosity to sexual victimization at T2 through risky sexual scripts, refusal assertiveness, and sexual victimization at T1 was significant among Chilean but not

among Turkish participants. The indirect paths from religiosity to sexual victimization at T2 via risky sexual behavior or refusal assertiveness and sexual victimization at T1 were nonsignificant in both countries. Despite a significant negative link between religiosity and sexual self-esteem in the Turkish sample, the expected pathways from religiosity to sexual victimization at T2 through sexual self-esteem, refusal assertiveness/risky sexual behavior, and past sexual victimization were also nonsignificant, failing to support our hypotheses. Finally, higher religiosity increased the vulnerability to sexual victimization at T2 through lower sexual self-esteem and a higher likelihood of past sexual victimization in the Turkish but not Chilean sample.

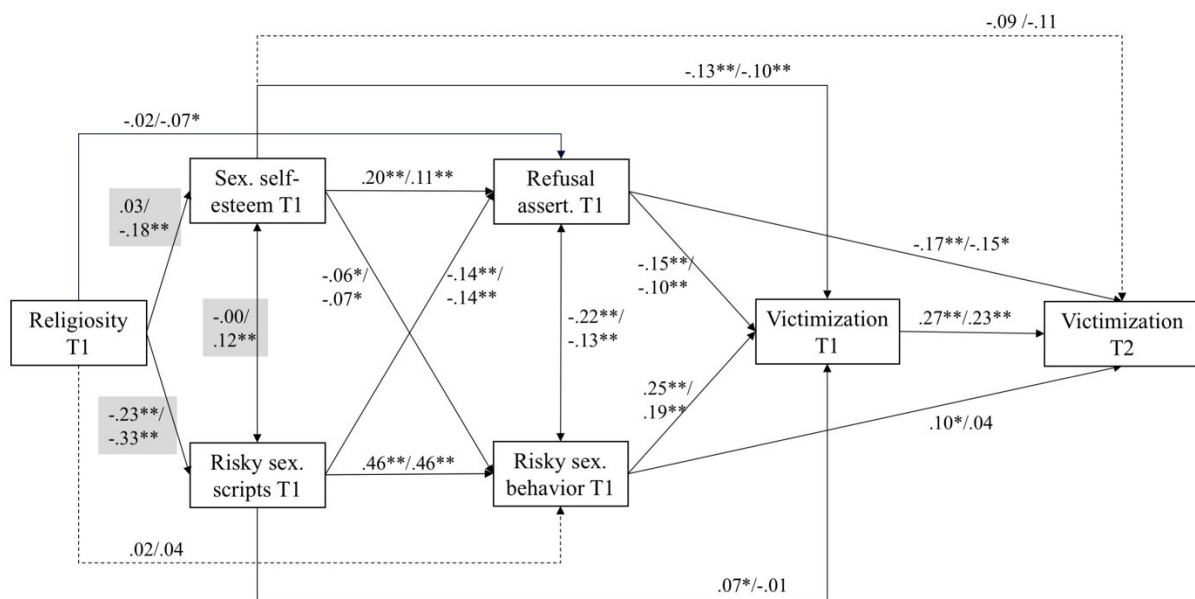


Figure 1. Longitudinal predictors of sexual victimization. All variables controlled for gender. The first standardized path coefficients refer to the Chilean sample, the second standardized path coefficients refer to the Turkish sample. The shaded coefficients differ significantly between Chilean and Turkish participants, $p < .01$ (99% CI). Model fit: $\chi^2(6, N = 1,983) = 8.649, p = .194, TLI = 0.982, CFI = 0.998, RMSEA = 0.021$ 90% CI [.000, .050]. * $p < .05$ (95% CI), ** $p < .01$ (99% CI).

Table 4

Hypothesized Indirect Paths to Sexual Victimization at T2

Indirect paths (Standardized)	Chilean sample	Turkish sample
Risky sexual scripts T1 → Risky sexual behavior T1 → Victimization T1 → Victimization T2	.03** [.014, .053]	.02** [.005, .044]
Risky sexual scripts T1 → Refusal assertiveness T1 → Victimization T1 → Victimization T2	.01** [.002, .013]	.003* [.001, .009]
Sexual self-esteem T1 → Refusal assertiveness T1 → Victimization T1 → Victimization T2	-.01** [-.017, -.003]	-.002* [-.007, -.001]
Sexual self-esteem T1 → Risky sexual behavior T1 → Victimization T1 → Victimization T2	-.004* [-.009, -.001]	-.003* [-.008, -.001]
Religiosity T1 → Risky sexual scripts T1 → Risky sexual behavior T1 → Victimization T1 → Victimization T2	-.01** [-.013, -.003]	-.01** [-.015, -.002]
Religiosity T1 → Risky sexual scripts T1 → Refusal assertiveness T1 → Victimization T1 → Victimization T2	-.001* [-.003, -.001]	-.00 [-.003, .000]
Religiosity T1 → Sexual self-esteem T1 → Victimization T1 → Victimization T2	-.00 [-.004, .001]	.004** [.001, .012]
Religiosity T1 → Sexual self-esteem T1 → Refusal assertiveness T1 → Victimization T1 → Victimization T2	.00 [-.001, .000]	.00 [.000, .001]
Religiosity T1 → Sexual self-esteem T1 → Risky sexual behavior T1 → Victimization T1 → Victimization T2	.00 [-.001, .000]	.00 [.000, .002]
Religiosity T1 → Refusal assertiveness T1 → Victimization T1 → Victimization T2	.00 [-.001, .004]	.00 [.000, .005]
Religiosity T1 → Risky sexual behavior T1 → Victimization T1 → Victimization T2	.00 [-.002, .006]	.00 [-.001, .006]

Note: * $p < 0.05$ [95% CI], ** $p < 0.01$ [99% CI], 95% CI in parentheses for nonsignificant results.

Discussion

To date, there is a lack of evidence on the prevalence and vulnerability factors of sexual victimization in developing countries, and even less is known about cultural differences. Addressing this gap in the current literature, the present study is the first to examine vulnerability factors of sexual victimization among college women and men in Chile and Turkey, applying a two-wave longitudinal design.

A high proportion of women and men in both samples reported sexual victimization since the respective age of consent when asked at the first data wave. Our prevalence rates are higher than in other studies conducted with college students in the two countries (e.g., Lehrer et al., 2013; Lüleci, Kaya, Aslan, Şenkal, & Çiçek, 2016). However, they are not unique. For instance, 84.0% of women in a sample of college students and graduates in Turkey reported some form of tactile, visual, or verbal sexual victimization (Kayı, Yavuz, & Arıcan, 2000). With respect to cross-cultural research, Krahe et al. (2015) and Chan et al. (2008) found similar male victimization rates in their samples from Greece, a neighboring country to Turkey (55.8% and 59.5%, respectively). In a Chilean high school sample, prevalence rates for different forms of sexual victimization were lower compared to the present study, ranging between 6.2% and 28.2% for women and between 1.7% and 6.2% for men. However, these figures include only sexual victimization in a current dating relationship (Centro de Estudios de Opinión Ciudadana, 2008).

Regarding gender differences, more women than men in the Turkish sample reported sexual victimization at T1. No further significant gender differences emerged. Although a large body of studies found higher prevalence rates for women than men (e.g., Banyard et al., 2007; Breiding et al., 2014), recent studies reported similar victimization rates among men and women (e.g., Hines, Armstrong, Reed, & Cameron, 2012; Krahe et al., 2015), challenging traditional beliefs about sexual victimization as happening only to women.

A major goal of the present study was to examine the role of sexual scripts for consensual sexual activities as predictor of sexual victimization in different cultures. In both countries, risky sexual scripts translated into risky sexual behavior and indirectly increased the vulnerability to sexual victimization at T2 through a higher probability of sexual victimization at T1. This result is consistent with previous findings from Brazil (D'Abreu & Krahe, 2016) and Poland (Tomaszewska & Krahe, 2016). The indirect path from sexual scripts to sexual victimization in both samples supports the cross-cultural importance of sexual scripts in guiding sexual behavior. Furthermore, more risky sexual scripts were associated with lower

refusal assertiveness, confirming the theoretical assumption of Santos-Iglesias et al. (2014), and indirectly increased the vulnerability to sexual victimization at T2 in both samples.

The second focus of the present study was on sexual self-esteem as predictor of sexual victimization. In both samples, lower sexual self-esteem predicted sexual victimization at T2 through lower refusal assertiveness as well as more risky sexual behavior and past experience of sexual victimization. Thus, the protective function of sexual self-esteem, as reported by previous studies, predominantly from North America and Europe (e.g., Tomaszewska & Krahe, 2016; Van Bruggen, Runtz, & Kadlec, 2006), was confirmed in the present study.

With respect to religiosity, both Christian and Muslim beliefs are associated with restrictive and conservative norms regarding sexuality (Ahrold et al., 2011; Yaşan, Essizoglu, & Yildirim, 2009). In the present study, high religiosity, although not showing direct links with risky sexual behavior, was related to less risky sexual scripts and indirectly decreased the vulnerability to sexual victimization through less risky sexual behavior in both samples. This finding is consistent with previous evidence from Poland, a predominantly Catholic country (Tomaszewska & Krahe, 2016). In the Chilean sample only, high religiosity indirectly decreased the probability of sexual victimization at T2 through less risky sexual scripts, higher refusal assertiveness, and lower odds of sexual victimization at T1. At the same time, higher religiosity increased the vulnerability to sexual victimization at T2 through lower sexual self-esteem and a higher likelihood of past sexual victimization in the Turkish sample. In the Chilean sample, this pathway was not found, as the link between religiosity and sexual self-esteem was nonsignificant.

The nonsignificant path in the Chilean sample is in line with findings from studies conducted in predominantly Christian countries (Haavio-Mannila & Kontula, 1997; Tomaszewska & Krahe, 2016). However, in the Turkish sample, religiosity was negatively linked to sexual self-esteem. In Islam, there may be more restrictions on young adults' sexual behavior. For example, one cross-cultural study showed that ever-married Muslim participants were less likely to report premarital sex than ever-married Christian participants (Adamczyk & Hayes, 2012). Premarital sexual relations, especially of women, are disapproved in Turkish society (Gelbal, Duyan, & Öztürk, 2008), and age at first sexual intercourse is higher in Turkey compared to Western countries (Aras, Orcin, Ozan, Semin, 2007). Thus, high religiosity in Islamic cultures may hinder sexual exploration and sexual experiences, and the associated development of sexual self-esteem (Zeanah & Schwarz, 1996). In line with this reasoning, participants in the Chilean sample scored higher on sexual self-esteem compared to the Turkish sample. However, there was no evidence in our study that high religiosity increased the

vulnerability to sexual victimization through lower sexual self-esteem, refusal assertiveness or risky sexual behavior, and sexual victimization at T1. In both samples, no significant links were found between religiosity and refusal assertiveness, similar to results from Schooler et al. (2005).

Strengths and Limitations

We believe that our study has several strengths. To our knowledge, this study is the first that examined vulnerability factors of sexual victimization in two different countries selected on the basis of theoretical considerations. This enabled us to examine different predictors of sexual victimization in a cross-cultural comparison. Second, we included both gender groups in our study, acknowledging that both women and men may be victims of sexual aggression.

One limitation of the study was that participants were recruited through convenience sampling. To replicate the findings of the present study, representative samples should be used in future research (see, however, Straus, 2009, on the validity of data based on non-representative samples). Second, we were confronted with a high drop-out rate compared to other longitudinal studies (e.g., Krahe & Berger, 2017b; Livingston et al., 2007). These studies usually offered monetary incentives in return for participation, whereas in the present study, a small number of gift cards was raffled among participants due to financial limitations. However, it is important to note that despite the high drop-out, participants who completed both measurement waves and those who only participated at T1 did not differ on any of our model variables at T1. Third, the scale on the normative acceptance of risk elements in sexual scripts only addressed opposite-sex constellations. Future studies should adapt this measure to apply to sexual behavior in same-sex encounters. Fourth, although the two countries included in this study were selected on the basis of theoretical considerations, we did not measure any cultural variables beyond the construct of religiosity, and this was assessed at the individual level. The assessment of country-level variables would be desirable, but was not feasible in the present comparison of just two countries as it requires a larger number of countries. Nevertheless, future research should include constructs relevant to the proposed cultural differences, for example beliefs about gender equality, to provide a more stringent assessment of the proposed differences between Turkey and Chile in relation to sexual victimization.

Despite these limitations, the present study contributes to the international evidence on vulnerability factors of sexual victimization. Risky scripts as mental representations of consensual sexual interactions were shown to play a key role in the understanding of sexual

victimization. In both countries, they were linked to more risky sexual behavior and lower refusal assertiveness, increasing the vulnerability to sexual victimization. This finding suggests that the modification of risky sexual scripts for consensual sex should be targeted in intervention programs to reduce women's and men's vulnerability to sexual victimization. A large body of prevention programs focuses on bystander behavior (e.g., Jouriles et al., 2016; McMahan et al., 2015). However, this type of intervention can only cover situations in which bystanders are available. Therefore, changing sexual scripts for consensual sexual activities by challenging descriptive and prescriptive norms about behaviors known to increase the vulnerability to experiencing nonconsensual sex may be an additional approach to reduce sexual victimization. It is important to stress, however, that prevention strategies should be first and foremost directed at the prevention of sexual aggression perpetration, as it is the perpetrators who bear responsibility for the problem of sexual aggression.

Furthermore, our study revealed that sexual victimization is a serious problem not only among women, but also among male college students in both Chile and Turkey. To tackle sexual aggression among adolescents and young adults, educational policies should be implemented that adopt a gender-inclusive perspective on sexual violence (Turchik, Hebenstreit, & Judson, 2015). Given that comprehensive sex education in both countries is lacking (Bikmaz & Güler, 2007; Macintyre, Montero Vega, Sagbakken, 2015), there is a clear need for policy decisions to introduce adequate sex education in schools, particularly including the topic of sexual aggression and consent.

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Appendix

Table A1

Fit Indices and Model Comparisons for the Test of Measurement Invariance Across the Chilean and Turkish Sample

	χ^2	df	RMSEA [90% CI]	TLI	CFI	Δ CFI
<i>Risk elements in sexual scripts</i>						
configural	391.676***	116	0.049 [0.044, 0.054]	0.947	0.966	-
metric	456.113***	129	0.051 [0.046, 0.056]	0.944	0.960	-.006
scalar	1013.641***	142	0.079 [0.074, 0.083]	0.863	0.893	-.067
partial scalar	544.126***	137	0.055 [0.050, 0.060]	0.934	0.950	-.010
<i>Normative acceptance of risk factors</i>						
configural	353.429***	92	0.054 [0.048, 0.060]	0.958	0.971	-
metric	431.032***	103	0.057 [0.051, 0.062]	0.953	0.964	-.007
scalar	1104.622***	114	0.094 [0.089, 0.099]	0.873	0.890	-.074
partial scalar	508.551***	111	0.060 [0.055, 0.065]	0.948	0.956	-.008
<i>Sexual self-esteem</i>						
configural	189.620***	66	0.043 [0.036, 0.051]	0.938	0.963	-
metric	246.169***	76	0.048 [0.041, 0.054]	0.925	0.948	-.015
partial metric	218.247***	75	0.044 [0.037, 0.051]	0.936	0.957	-.006
scalar ¹	668.300***	85	0.083 [0.077, 0.089]	0.771	0.823	-.134
partial scalar	247.754***	80	0.046 [0.040, 0.053]	0.930	0.949	-.008
<i>Refusal assertiveness</i>						
configural	6.289*	2	0.047 [0.007, 0.090]	0.983	0.997	-
metric	12.540*	5	0.039 [0.012, 0.067]	0.988	0.995	-.002
scalar	55.044***	8	0.077 [0.059, 0.097]	0.953	0.969	-.026
partial scalar	14.068	7	0.032 [0.000, 0.056]	0.992	0.995	-.000

Note: ¹the constraint on one loading was released. * $p < .05$, *** $p < .001$.

Table A2

Fit Indices and Model Comparisons for the Test of Measurement Invariance Across Women and Men

	χ^2	df	RMSEA [90% CI]	TLI	CFI	Δ CFI
<i>Risk elements in sexual scripts</i>						
configural	382.312***	116	0.048 [0.043, 0.054]	0.951	0.969	-
metric	443.375***	129	0.050 [0.045, 0.055]	0.948	0.963	-.006
scalar	1396.332***	142	0.094 [0.090, 0.099]	0.811	0.853	-.110
partial scalar	539.047***	137	0.054 [0.050, 0.059]	0.937	0.953	-.010
<i>Normative acceptance of risk factors</i>						
configural	346.130***	92	0.053 [0.047, 0.059]	0.959	0.972	-
metric	373.165***	103	0.051 [0.046, 0.057]	0.961	0.970	-.002
scalar	506.681***	114	0.059 [0.054, 0.064]	0.949	0.956	-.014
partial scalar	469.186***	112	0.057 [0.051, 0.062]	0.953	0.960	-.010
<i>Sexual self-esteem</i>						
configural	245.276***	66	0.052 [0.045, 0.059]	0.908	0.945	-
metric	263.360***	76	0.050 [0.043, 0.057]	0.917	0.942	-.003
scalar	492.112***	86	0.069 [0.063, 0.075]	0.840	0.875	-.067
partial scalar	300.140***	84	0.051 [0.045, 0.057]	0.913	0.933	-.009
<i>Refusal assertiveness</i>						
configural	8.045*	2	0.055 [0.020, 0.097]	0.974	0.996	-
metric	11.898*	5	0.037 [0.009, 0.065]	0.988	0.995	-.001
scalar	29.672***	8	0.052 [0.033, 0.073]	0.977	0.984	-.011
partial scalar	19.366**	7	0.042 [0.020, 0.065]	0.985	0.991	-.004

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

10. Predictors of Sexual Aggression Perpetration among Male and Female College Students: Cross-Cultural Evidence from Chile and Turkey²⁰

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Abstract

This two-wave longitudinal study examined risky sexual scripts and sexual behavior regarding consensual sexual interactions, sexual self-esteem, initiation assertiveness, and religiosity as predictors of sexual aggression perpetration in a cross-cultural comparison of college students in Chile and Turkey. As predicted, risky sexual scripts were linked to higher odds of perpetration through more risky sexual behavior cross-sectionally in both the Chilean and the Turkish sample and indirectly predicted perpetration 12 months later. High sexual self-esteem increased the likelihood of perpetration via higher initiation assertiveness in the Turkish sample only. High religiosity had a protective function through less risky sexual scripts and less risky sexual behavior in both samples. Additionally, high religiosity increased the probability of perpetration through lower sexual self-esteem in the Turkish sample. Implications of these findings and the role of cultural factors contributing to the differential functioning of religiosity and sexual self-esteem are discussed.

Keywords: Sexual Aggression Perpetration, Risk Factors, Sexual Scripts, Chile, Turkey

Predictors of Sexual Aggression Perpetration among Male and Female College Students:
Cross-Cultural Evidence from Chile and Turkey

A recent cross-cultural study on sexual aggression perpetration among college students in ten countries of the European Union revealed prevalence rates up to 48.7% for men and 14.8% for women (Krahé et al., 2015). Despite their importance for public health interventions and policy decisions, predictors of perpetration in student populations are rarely studied compared to the broad evidence base on sexual victimization. The majority of available studies were conducted in the U.S. with all-male samples and cross-sectional designs (see Tharp et al., 2013, for a review), leaving the question of causality as well as the impact of gender and culture unaddressed. Therefore, the purpose of the present study was to examine predictors of sexual aggression perpetration, defined as making another person engage in sexual activities against her or his will. We studied perpetration among male and female college students, using a two-wave longitudinal design and including two countries outside the mainstream of past research, namely Turkey and Chile, for which studies on risk factors of sexual aggression are virtually absent (see reviews by Schuster & Krahé, 2017a, 2017b). The two countries were selected on the basis of theoretical considerations to investigate risk factors of perpetration identified in previous research, with a special focus on the role of sexual scripts for consensual sexual interactions. A conceptual model predicting sexual aggression perpetration from risky sexual scripts for consensual sex, risky sexual behavior, sexual self-esteem, initiation assertiveness, and religiosity was tested to examine the generalizability of the risk factor model across different cultures.

Chile and Turkey were chosen for the present cross-cultural comparison because they are similar in some macro-level aspects relevant to sexual aggression yet different in others and represent countries in which research on sexual aggression is largely missing. In terms of similarities, religion plays a major role in both countries, but the religious denominations differ. In Chile, the Catholic Church is predominant, whereas in Turkey, Sunni Islam is most widespread (US Department of State, 2015a, 2015b). Past studies with college students revealed that 42% of participants in Chile (Lehrer, Lehrer, & Kraus, 2009) and 41.1% of participants in Turkey (Hatipoğlu Sümer, 2015) attended religious services at least once a month, indicating a greater importance of religious participation than in Western countries (e.g., Weatherly & Plumm, 2012).

The cross-cultural analysis by Chon (2013) that included 74 countries found that countries in the Muslim world had lower rates of sexual violence, whereas countries from Latin

America had higher rates relative to other parts of the world. He explained these differences by the stronger sanctioning of violence in Muslim-majority countries and the machismo culture of male dominance in Latin America. Given the paucity of empirical findings on sexual aggression perpetration in these two parts of the world (see Schuster & Krahe, 2017a, 2017b, for reviews), assessing sexual aggression perpetration among college students in Chile and Turkey may provide further exemplary evidence.

A second factor related to differences in the prevalence of sexual aggression in a society is gender inequality, although the nature of the association appears to be complex. According to the amelioration hypothesis, increasing women's status in a society should reduce the rates of men's sexual aggression against women by reducing male power over women. By contrast, the backlash hypothesis proposes that increased gender equality should be linked to higher rates of sexual aggression against women as men use sexual aggression to re-establish their superior status. In the literature, both positions on male-perpetrated aggression have received empirical support (Chon, 2013; Whaley, 2001). However, studies linking gender inequality to women's perpetration of sexual aggression are rare. To date, there is some evidence that women's sexual coercion of men is positively correlated with their status in society (Hines, 2007). In combination, these findings point to the role of gender inequality as a critical macro-level variable associated with sexual aggression.

According to the latest report of the United Nations Development Programme (2016), Chile and Turkey have very similar values on the Gender Inequality Index, in which higher scores represent greater present disparities between women and men. They both score in the lower middle in terms of gender inequality, scoring above most Western countries (e.g., Canada, Germany, the U.S.). Thus, one would expect similar rates of sexual aggression perpetration based on this macro-level index.

A third reason why Chile and Turkey are theoretically interesting countries for a cross-cultural analysis is that they have both commonalities and differences in societal attitudes toward sexuality. In both countries, sexuality is regarded as a taboo topic, preventing an open discussion in both families and institutions (Erenel & Golbasi, 2011; Macintyre, Montero Vega, & Sagbakken, 2015). In line with this, sex education includes primarily biological and reproductive aspects of sexuality but information on emotional dimensions and sexual violence is lacking (Bıkmaz & Güler, 2007; Macintyre et al., 2015). In addition, sexual double standards, judging women who engage in sexual activity and have multiple sexual partners more harshly than men, are prevailing in both countries (Barrientos Delgado & Silva Segovia, 2014; Eşsizoglu, Yasan, Yildirim, Gurgun, & Ozkan, 2011). Although many similarities in gender

roles appear in both countries, premarital virginity is deemed particularly important for Turkish women (Aras, Orcin, Ozan, & Semin, 2007). While sex before marriage is widely accepted for men, it is strongly disapproved for women. By contrast, in Chile, previous restrictions on sex before marriage have been lifted (Barrientos Delgado & Silva Segovia, 2014), although premarital sexual abstinence is still promoted by the Catholic Church. In addition, the differences in societal attitudes are also reflected at the individual level. According to the latest World Values Survey, 74.1% of Turkish participants up to the age of 29 agreed with the statement that premarital sex is “never justified”, whereas the corresponding rate in Chile was only 5.9% (World Values Survey Association, 2010-2014).

Against these similarities and differences in cultural background, the present two-wave study examines predictors of sexual aggression perpetration in Chile and Turkey, contributing to the limited evidence on sexual aggression in both countries. The predictors included in the proposed model are risky sexual scripts and behavior, sexual self-esteem, sexual assertiveness, and religiosity, which have been linked to sexual aggression perpetration in past research from the international literature.

Risky Sexual Scripts and Risky Sexual Behavior as Predictors of Sexual Aggression Perpetration

Sexual scripts are cognitive schemata that comprise expectations about sequences of actions and events in sexual encounters and serve as guidelines for sexual behavior (Simon & Gagnon, 1986). Influenced by culture-specific standards, they include not only descriptive content but also normative beliefs about the appropriateness of behaviors (Krahé, Bieneck, & Scheinberger-Olwig, 2007). If sexual scripts for consensual sexual interactions contain features that have been associated with increased odds of sexual aggression perpetration, these scripts may be regarded as *risky* with respect to engaging in sexually aggressive behavior, particularly through their impact on corresponding risky behavior. This pathway has been demonstrated by previous studies in Brazil and Germany (D’Abreu & Krahé, 2014; Krahé et al., 2007). The following features of risky scripts have been conclusively linked to the risk of perpetration among both men and women: (1) alcohol use in sexual situations, (2) ambiguous communication of sexual intentions, and (3) engagement in casual sexual activity.

Drinking alcohol, both as a general pattern of behavior and specifically in sexual situations, has been consistently associated with a higher likelihood of sexual aggression perpetration among men (see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004, for a review). Similarly, women’s sexually aggressive behavior has been linked to earlier and more

frequent alcohol consumption compared to non-perpetrators (Kjellgren, Priebe, Svedin, Mossige, & Långström, 2011). One of the pathways by which the consumption of alcohol in sexual situations increases the odds of perpetration is through its impairment of cognitive processes and the narrowing of the perceptual field. These effects promote the misperception of the other person's sexual cues and intentions, and behavior driven only by one's own desires or needs becomes more likely (see Abbey et al., 2004, for a review).

At the level of interpersonal communication, ambiguous signals regarding sexual intentions, such as saying *yes* to a sexual activity despite not wanting to engage in it or saying *no* even though one is willing to engage in it, have been associated with an increased probability of sexual aggression perpetration (D'Abreu & Krahe, 2014; Krahe, Scheinberger-Olwig, & Kolpin, 2000). Particularly, if the ambiguous communication of sexual intentions is part of persons' sexual scripts, they may be less likely to take another person's rejection of their sexual advances seriously.

At the level of sexual behavior, it has been shown that a noncommittal sexual lifestyle may be associated with more opportunities to behave in a sexually aggressive way. There is evidence that having multiple partners and engaging in casual sex is linked to a higher probability of engaging in sexual aggression (see Tharp et al., 2013, for a review).

If these behavioral features are part of a person's cognitive scripts for consensual sexual encounters, we stipulate that this renders sexual scripts "risky" with regard to the perpetration of sexual aggression, as scripts are conceptualized as guiding actual behavior in sexual situations.

Sexual Self-Esteem and Sexual Assertiveness as Predictors of Sexual Aggression Perpetration

Sexual self-esteem is conceptualized as an individual's self-evaluation of worth as a sexual being (Buzwell & Rosenthal, 1996). Low sexual self-esteem has been established as a vulnerability factor of sexual victimization (e.g., Krahe & Berger, 2017b; Tomaszewska & Krahe, 2018). By contrast, evidence on the link with sexual aggression perpetration is limited. A recent study by Krahe and Berger (2017a) showed that low sexual self-esteem increased the odds of perpetration among men, but not among women. Conceptually, we propose that in relation to perpetration, sexual self-esteem may increase or decrease the tendency to engage in sexual aggression through different mediating pathways. One behavioral mediator between sexual self-esteem and perpetration is initiation assertiveness, which is a specific facet of sexual assertiveness and refers to the ability to assert one's own sexual interests by initiating sexual

activity (Morokoff et al., 1997). Although this construct has not been linked to sexually aggressive behavior in the past, we suggest that higher initiation assertiveness might be linked to a higher probability of perpetration. For example, Santos-Iglesias, Sierra, and Vallejo-Medina (2013) found a positive link between initiation assertiveness and sexual arousal which, in turn, was linked to a higher estimated likelihood of perpetration (Davis, Norris, George, Martell, & Heiman, 2006). Accordingly, individuals with high initiation assertiveness may be less likely to stop their sexual advances when they encounter non-consent by their partner. This may also be due to blurred boundaries between being assertive and being aggressive. Based on positive correlations between sexual self-esteem and sexual assertiveness (Ménard & Offman, 2009), and between sexual self-acceptance and initiation assertiveness in particular (Morokoff et al., 1997), we propose an indirect pathway by which high sexual self-esteem may increase the odds of sexual aggression perpetration.

At the same time, high sexual self-esteem may be conceptualized as a protective factor against sexual aggression perpetration through an indirect pathway via less risky sexual behavior, defined in terms of casual sex, unclear communication, and alcohol use in sexual situations. There is evidence that sexual self-esteem is positively linked to knowledge of risky sexual behavior regarding sexual transmitted diseases and pregnancy (Rostosky, Dekhtyar, Cupp, & Anderman, 2008) and the motivation to avoid risky sexual behavior (e.g., desire to avoid unprotected sex; Schick, Calabrese, Rima, & Zucker, 2010). Moreover, individuals with higher sexual self-esteem were less likely to engage in casual sex (Lemieux & Byers, 2008), and greater perceived sexual control, a facet of sexual self-esteem (Zeanah & Schwartz, 1996), was negatively correlated with risky sex (Walsh et al., 2013). Building on these findings, we assumed that high sexual self-esteem would decrease the probability of sexual aggression perpetration through less risky sexual behavior.

Furthermore, how assertively persons pursue their sexual interests may be guided by their sexual scripts (Santos-Iglesias, Vallejo-Medina, & Sierra, 2014). Sexually experienced persons reported higher acceptance of risk elements in sexual scripts, such as ambiguous communication of sexual intentions, alcohol or drug consumption, and engagement in casual sex, than inexperienced persons (Krahé et al., 2007), and sexual experience correlated positively with initiation assertiveness (Morokoff et al., 1997), suggesting a positive association between risky scripts and initiation assertiveness. Accordingly, we predicted that more risky sexual scripts would increase the odds of sexual aggression perpetration through higher initiation assertiveness.

Associations of Religiosity with Risky Sexual Scripts, Risky Sexual Behavior, Sexual Self-Esteem, and Sexual Assertiveness

A large body of research has demonstrated the critical role of religiosity on sexual norms and behavior patterns in Christian samples (see Rostosky, Wilcox, Comer Wright, & Randall, 2004, for a review). However, there is a lack of studies on the association between religiosity and sexual standards among participants with non-Christian religious beliefs, such as Islam. The few available studies with Muslim samples included mainly variables related to sexual activity or attitudes. They revealed, for example, that high religiosity was associated with having fewer sexual partners (Boratav & Çavdar, 2012) and holding more conservative attitudes toward sexuality (Duyan & Duyan, 2005), similar to evidence from Christian samples (e.g., Ahrold, Farmer, Trapnell, & Meston, 2011; Pedersen, 2014).

With respect to sexual scripts as cognitive representations of consensual sexual activities, high religiosity among mainly Catholic college students from Poland was linked to less risky sexual scripts (Tomaszewska & Krahé, 2018). Another study, again with a predominantly Christian sample, revealed a negative link between religious commitment and risky sexual behavior, as indicated, for example, by having multiple sex partners and drinking alcohol or taking drugs in sexual situations (Smith, 2015). Therefore, we expected that high religiosity mediated through less risky sexual scripts and less risky sexual behavior would decrease the odds of sexual aggression perpetration.

Evidence on the association between religiosity and sexual self-esteem or sexual assertiveness is limited, even in Christian samples. One study found a negative link between religiosity and sexual self-esteem among participants raised as Catholics (Abbott, Harris, & Mollen, 2016). In another study, religiosity correlated negatively with sexual assertiveness (Curtin, Ward, Merriwether, & Caruthers, 2011). Therefore, we assumed that high religiosity would decrease the odds of sexual aggression perpetration via lower sexual self-esteem and lower initiation assertiveness. At the same time, we expected that high religiosity would also be a risk factor by increasing the probability of perpetration through lower sexual self-esteem. Thus, the role of religiosity was expected to vary depending on the respective mediators.

Repeated Sexual Aggression Perpetration

There is broad consensus that sexual aggression perpetration in the past is a predictor of future sexually aggressive behavior (see Tharp et al., 2013, for a review). In a recent longitudinal study with male college students, Zinzow and Thompsons (2015) found an initial perpetration rate of 30%, of whom 68% showed sexual aggression again in the following four years. These

findings suggest that past sexually aggressive behavior plays a key role in predicting sexual aggression. Therefore, we included perpetration since the age of consent to assess the indirect pathways from the predictor variables discussed above to perpetration at T2.

The Role of Gender

To date, the role of gender in explaining sexual aggression perpetration has been neglected because most studies used all-male samples. Thus, only limited evidence on women as perpetrators is available (see Fisher & Pina, 2013, for a review). The few studies on the prevalence of perpetration that included both gender groups have consistently shown that rates are higher among men than women (e.g., Krahe & Berger, 2013). However, evidence on a moderating impact of gender on predictors of perpetration is inconclusive. Two recent studies have found that the effect of sexual self-esteem and sexual assertiveness on perpetration depended on gender (Krahe et al., 2015; Krahe & Berger, 2017a), whereas another study showed that predictors, such as religiosity, risky sexual scripts, and risky sexual behavior, held equally for men and women (Tomaszewska & Krahe, 2018). Because there are different standards regarding sexuality and sexual behavior for men and women in Chile and Turkey (Barrientos Delgado & Silva Segovia, 2014; Eşsizoglu et al., 2011), this might have an impact on men's and women's sexual scripts and behavior as well as their level of sexual self-esteem or initiation assertiveness. Given the limited and inconclusive evidence from past research, the current study examined whether or not the proposed pathways to sexual aggression perpetration would be similar or different across males and females.

The Current Study

To date, little evidence is available on risk factors of sexual aggression perpetration among college students outside Western countries even though sexual aggression is recognized as a global problem. Knowledge is mostly derived from male samples despite evidence that females may also be perpetrators. To address these limitations and building on the theory of sexual scripts and previous findings on religiosity as well as sexuality-related cognitions and sexual behavior patterns, the present study examined predictors of sexual aggression perpetration among male and female college students in Chile and Turkey.

Our proposed model for the prediction of sexual aggression perpetration is shown in Figure 1. At Time 1 (T1), we assessed risky sexual scripts for consensual sexual interactions, risky sexual behavior, sexual self-esteem, initiation assertiveness, and religiosity. These

variables were used as predictors of perpetration in the following 12 months, assessed at Time 2 (T2), through perpetration at T1 (since the age of consent).

Based on previous findings reported above, we hypothesized that more risky sexual scripts would be associated with more risky sexual behavior, and thereby increase the probability of sexual aggression perpetration cross-sectionally at T1 and prospectively at T2. In addition, we expected that more risky sexual scripts would increase the probability of perpetration at T1 and T2 through higher initiation assertiveness.

For sexual self-esteem, we predicted that high sexual self-esteem would decrease the probability of sexual aggression perpetration at T1 and T2 through less risky sexual behavior. At the same time, we expected that high sexual self-esteem would increase the probability of perpetration at T1 and T2 through higher initiation assertiveness.

For religiosity, we also predicted different functions, either decreasing or increasing the probability of sexual aggression perpetration at T2, depending on the mediating processes. On the one hand, we expected that high religiosity would decrease the likelihood of perpetration at T1 and T2 through less risky sexual scripts and less risky sexual behavior, through less risky sexual scripts and lower initiation assertiveness as well as through less risky sexual behavior and through lower initiation assertiveness directly. Furthermore, we expected that high religiosity would predict lower sexual self-esteem, thereby lowering initiation assertiveness, and indirectly decreasing the probability of perpetration at T1 and T2. On the other hand, the expected link between high religiosity and low sexual self-esteem would increase the probability of perpetration at T1 and T2 as well as through more risky sexual behavior. We examined whether the proposed links would hold for both countries and gender groups.

Method

Participants

In Chile, a total of $N = 1,310$ participants (988 women, 322 men) were recruited from five state and private universities in the Santiago Metropolitan and Valparaíso Region at T1. In Turkey, the total sample at T1 consisted of $N = 1,593$ participants (1,010 women, 583 men) from four state universities in Ankara. Participants aged under 18 years and 30 years and above were excluded ($n_{\text{Chile}} = 47$, $n_{\text{Turkey}} = 76$) because the study focused on sexual aggression perpetration among young adults. In addition, participants without coital experience were excluded ($n_{\text{Chile}} = 165$, $n_{\text{Turkey}} = 632$) because the assessment of participants' risky sexual behavior referred to sexual intercourse. The final T1 samples consisted of 1,098 participants (832 women, 266 men) in Chile and 885 participants (532 women, 353 men) in Turkey. The T2 sample included 404

participants (323 women, 81 men) in Chile and 268 participants (170 women, 98 men) in Turkey. This corresponds to an attrition rate of 63.2% in the Chilean and 69.7% in the Turkish sample. In the Turkish sample in particular, the high drop-out rates were partially attributable to the high number of participants who did not provide an email address for the second data wave (25.7% of the initial Turkish sample). Although we took all necessary measures to ensure participants' anonymity by informing them about the procedure of data protection and storage of their email addresses separately from their questionnaire data, they may still have feared non-anonymity of their responses. Comparisons between participants who took part in both waves and those who dropped out after T1 revealed that there were no significant differences between both groups on any of our model variables. All T1 participants were included in the analyses. Missing data were handled using Full Information Maximum Likelihood (FIML) estimation, as explained below.

Almost all participants were nationals of the country where the data were collected (98.8% Chilean nationality in the Chilean sample; 95.5% Turkish nationality in the Turkish sample). The mean age was 22.1 years ($SD = 2.61$) in the Chilean sample and 22.2 years ($SD = 2.48$) in the Turkish sample. With respect to participants' sexual orientation, in the Chilean sample, 89.3% self-identified as heterosexual, 4.9% as bisexual, and 5.7% as gay/lesbian. In the Turkish sample, 89.4% self-identified as heterosexual, 7.4% as bisexual, and 3.3% as gay/lesbian. Chilean participants had their first sexual intercourse at a younger age ($M = 17.1$, $SD = 2.25$) compared to Turkish participants ($M = 18.6$, $SD = 2.25$), $t(1898) = -14.46$, $p < .001$. The number of sexual partners was similar in the Chilean sample ($M = 4.7$, $SD = 6.85$) and the Turkish sample ($M = 5.2$, $SD = 8.14$), $t(1620.488) = -1.37$, $p = .172$.

Measures

Sexual aggression perpetration

The Sexual Aggression and Victimization Scale (SAV-S; Krahe & Berger, 2013), a cross-culturally validated measurement tool (Krahe et al., 2015, 2016), was used to assess sexual aggression perpetration of men and women. It combines three coercive strategies (threat or use of physical force, exploitation of the inability of the victim to resist, and use of verbal pressure) with three different relationship constellations between the perpetrator and the victim (current or former partner, friend or acquaintance, and stranger). For each combination, four sexual activities are specified (sexual touch, attempted sexual intercourse, completed sexual intercourse, and other sexual acts, e.g., oral sex), resulting in 36 items in total. Participants were asked if they had shown the particular behavior *never* (0), *once* (1), or *more than once* (> 1). At

T1, responses were elicited (1) since the age of consent, which is 15 years in Turkey and 14 years in Chile²¹, up to 12 months ago and (2) in the last 12 months, which were then combined into an overall perpetration score. At T2, perpetration behavior in the last 12 months was assessed, covering the time period between the two data waves. We did not test internal consistency and measurement invariance because the underlying assumption that different forms of perpetration behavior are interrelated is not appropriate for this measure (see also Koss et al., 2007). The online survey facilitated the assignment of the participants to a tailored version of the perpetration questionnaire depending on their gender and sexual orientation. For example, heterosexual men were asked about sexual aggression perpetration toward women.

Risky sexual scripts

To create a composite measure of participants' risky scripts for consensual sexual encounters, both descriptive and normative features were measured. The extent to which risk elements were part of the sexual scripts was assessed by a scenario-based measure (Krahé et al., 2007). Participants were asked to imagine a situation in which they had sexual intercourse with a new partner for the first time and to rate the extent to which they considered the following elements as typical for this situation: (1) Use of alcohol or drugs and degree of intoxication (six items, e.g., "How likely is it that the alcohol is consumed by you; by the man/woman?"), (2) ambiguous communication of sexual intentions (four items, e.g., "How likely is it that you first say 'no' even though you also want to have sex with her/him?"), and (3) length of acquaintanceship and engaging in casual sex (four items, e.g., "How long have the two of you known each other before?", reverse coded). Responses were made on a five-point scale with options that ranged from 1 (*very unlikely*) to 5 (*very likely*) for alcohol or drug consumption, ambiguous communication, and casual sex, from 1 (*not at all*) to 5 (*totally*) for level of intoxication, and from 1 (*not at all*) to 5 (*a few months or longer*) for length of previous relationship. Cronbach's coefficient alpha was .78 for the combined sample ($\alpha_{\text{Chile}} = .78$, $\alpha_{\text{Turkey}} = .75$).

To assess the normative acceptance of these risk elements in sexual scripts, a 12-item-scale was used (Krahé et al., 2007), covering the same features as in the descriptive measure.

²¹ In Turkey, child sexual abuse, which is per definition nonconsensual, comprises all sexual activities with a person under 15 years according to Turkish penal code. Consensual coitus with an adolescent aged between 15 and 17 years is punishable upon complaint. Regardless of complaint, the perpetrator can be punished if he/she is forbidden to marry the victim or he/she exploited a position of care. In Chile, sexual activities with a minor aged under 14 years are considered child sexual abuse by the Chilean penal code. The age of consent is 14 for heterosexual and lesbian relations and 18 for gay male relations. Limitations for sexual activities with a person aged between 14 and 18 years are defined by the "estupro" legislation: consensual sexual activities can be prosecuted if the perpetrator was in a position of care or if the victim's mental disturbance, neglect, or sexual inexperience was exploited.

Two items referred to the use of alcohol or drugs in sexual situations (e.g., “Drinking alcohol when meeting a man and having sex with him is part of the game.”), four items addressed the ambiguous communication of sexual intentions (e.g., “It is part of the game for a woman to say ‘no’ at first when a man wants to have sex with her even though she wants it too.”), and finally six items covered casual sexual activities (e.g., “It is ok for a man to have sex with a woman on the first night out.”). Responses were elicited on a five-point scale, ranging from 1 (*completely disagree*) to 5 (*completely agree*). The internal consistency of the scale was $\alpha = .82$ for the combined sample ($\alpha_{\text{Chile}} = .81$, $\alpha_{\text{Turkey}} = .82$). To create an overall index for participants’ risky sexual scripts, the mean scores of both scales were multiplied, following previous research (e.g., Tomaszewska & Krahé, 2018).

Risky sexual behavior

Risky sexual behavior was assessed by eight items adapted from Krahé et al. (2007), referring to the frequency of alcohol or drug consumption (two items, e.g., “How often did you drink alcohol in situations in which you had sexual intercourse?”), ambiguous communication of sexual intentions (four items, e.g., “How often did you say ‘no’ to a sexual offer even though you wanted it?”), and casual sex (one item, “How often did you sleep with a man/woman whom you did not know well?”). Response options ranged from 1 (*never*) to 5 (*always*). In addition, one item addressed the number of casual sexual partners in an open-ended format. All items were z-standardized before creating a mean score of risky sexual behavior. Because the measure is an aggregate of individual behaviors, assessing internal consistency and measurement invariance is not appropriate.

Sexual self-esteem

To assess participants’ sexual self-esteem, 11 items from the short form of the Sexual Self-Esteem Inventory developed by Zeanah and Schwarz (1996) were used. The scale included four items each from the Adaptiveness subscale (e.g., “In general, I feel my sexual experiences have given me a more positive view of myself.”) and the Control subscale (e.g., “I feel physically vulnerable in a sexual encounter.”; reverse coded) and three items from the Skill and Experience subscale (e.g., “I feel I am pretty good at sex.”). Responses were made on a five-point scale from 1 (*do not agree at all*) to 5 (*totally agree*). Cronbach’s coefficient alpha for the combined sample was $.77$ ($\alpha_{\text{Chile}} = .81$, $\alpha_{\text{Turkey}} = .74$).

Initiation assertiveness

Assertiveness in initiating sexual activities was measured by three items from the Initiation subscale of the Sexual Assertiveness Scale developed by Morokoff et al. (1997) (e.g., “I begin sex with my partner if I want to.”). Responses were made on a 5-point response scale ranging from 1 (*never*) to 5 (*always*). The internal consistency for the combined sample was .64 ($\alpha_{\text{Chile}} = .61$, $\alpha_{\text{Turkey}} = .70$).

Religiosity

Two items were used to measure participants' religiosity. One item on the importance of religion was taken from the U.S. National Alcohol Surveys (e.g., Michalak, Trocki, & Bond, 2007): “How important is religion in your life?”. The second item on religious education was taken from the SHARE survey (Survey of Ageing, Health and Retirement in Europe; e.g., Levin, 2013): “Have you been educated religiously, for example, by your parents?”. A 10-point response scale was provided, ranging from 1 (*not at all*) to 10 (*very much*). The internal consistency of the two-item scale in the combined sample was $\alpha = .60$ ($\alpha_{\text{Chile}} = .56$, $\alpha_{\text{Turkey}} = .61$).

Procedure

The study design and all instruments were approved by the Ethics Committees of the authors' university and the collaborating universities in Chile and Turkey. For the translation of the measures, standard back translation procedures were used. In a first step, Spanish and Turkish native speakers translated the original versions in German or English into the respective target language. In a second step, all measures were back-translated. The Spanish version of the SAV-S was already available and had been employed and validated in previous research in Spain (Krahé et al., 2015, 2016). For use in Chile, slight changes were made to adapt the wording to Chilean Spanish.

To recruit participants at T1 in both countries, students were informed in class about the possibility of participating in an online survey on young adults' sexuality and unwanted sexual contacts. Additionally, the study was advertised in university groups of social media platforms, and flyers with the web link were distributed on campuses. In Chile, the web link for the study was also sent out via mailing lists of the universities. For the second data wave, a new study link was sent out to all participants who had provided an email address at T1. At each data wave, access to the survey items was only possible after giving active consent. In return for

participation, gift cards were raffled. Since questions on sexual aggression perpetration may elicit negative emotions, we provided a “help button” on each page that presented the perpetration items. Pushing this button opened a new browser page with a list of counselling agencies specialized on sexual violence.

Data Analysis

The hypotheses and measurement invariance of all predictor variables were tested with the Mplus software (version 7.4; Muthén & Muthén, 1998-2015). To evaluate measurement invariance across countries and gender groups, three increasingly restrictive levels of invariance were tested, employing the robust maximum likelihood (MLR) estimator: (1) *configural invariance*, which indicates that the structure of the model is the same across groups; (2) *metric invariance*, which indicates that factor loadings are equal across groups; (3) *scalar invariance*, which indicates that intercepts are equal across groups. Measurement equivalence is given if the difference in the CFI between the constrained and the unconstrained model is equal or smaller than -.01, as suggested by Cheung and Rensvold (2002). In cases in which metric or scalar invariance could not be established, a subset of parameters was allowed to be freely estimated to test partial metric or scalar invariance (Vandenberg & Lance, 2000).

To examine our hypotheses, we began by estimating two multi-group models by gender in each country sample: the first with paths constrained to be equal for both gender groups (constrained model) and the second with paths that were allowed to vary between both gender groups (unconstrained model). Gender as a moderator was examined by comparing both models with the Satorra-Bentler scaled chi-square difference test. In a second step, we estimated two multi-group models by country and again compared the constrained and unconstrained models using the Satorra-Bentler scaled chi-square difference test.

All T1 participants were included in the analyses. Missing data were handled by Full Information Maximum Likelihood (FIML) estimation, a current state-of-the-art approach for dealing with missing data (Enders, 2010). Unlike traditional approaches, such as listwise or pairwise deletion, this approach does not assume that missing values are missing completely at random (MCAR). As stated by Enders (2010, *p.* 55), listwise and pairwise deletion produce biased parameter estimates with data that are missing at random (MAR) or missing not at random (MNAR), substantially reduce power, and should therefore only be used if the amount of missing data is small. FIML estimates parameters using information from the observed variables and yields unbiased parameter estimates. In our data, the MCAR assumption cannot

be made and the proportion of missing data is high, which is why we included all T1 participants in the analysis and adopted the FIML approach to deal with missing data.

We used the MLR estimator to account for the non-normality distributions of the data. Statistical significance of the direct and indirect paths was assessed by 95% and 99% bias-corrected bootstrapped confidence intervals based on 10,000 replications. Because the bootstrapping procedure cannot be used in combination with the MLR estimator, we employed the maximum likelihood (ML) estimator for these analyses. Differences in path coefficients across countries were examined through post-hoc tests using the MODEL CONSTRAINT option of Mplus. For these analyses, the 99% confidence interval was used to account for multiple comparisons.

Results

Prevalence of Sexual Aggression Perpetration

In the Chilean sample, 30.5% of men and 17.4% of women endorsed at least one sexual aggression perpetration item at T1 (perpetration since age of consent), and 17.6% of men and 7.8% of women reported at least one incident of perpetration at T2 (perpetration in the last 12 months). The gender difference was significant at both time points, with higher rates for men than for women; $\chi^2_{T1}(1, N = 1,084) = 21.055, p < .001$; $\chi^2_{T2}(1, N = 381) = 6.465, p < .05$. In the Turkish sample, 33.1% of men and 17.6% of women reported at least one incident of perpetration at T1. At T2, the corresponding rates were 26.6% for men and 21.9% for women. The gender difference was significant at T1, with higher rates for men than for women; $\chi^2_{T1}(1, N = 858) = 27.366, p < .001$. At T2, the gender difference was nonsignificant, $\chi^2_{T2}(1, N = 239) = 0.653, p = .419$. A detailed analysis of the perpetration rates in both samples at T1, differentiated by coercive strategy and relationship between the perpetrator and the victim, can be found in Schuster, Krahe, Ilabaca Baeza, and Muñoz-Reyes (2016) for Chile and in Schuster, Krahe, and Toplu-Demirtaş (2016) for Turkey.

For the path analysis, a perpetration score reflecting the severity of the behavior was created based on the procedure proposed by Koss et al. (2007), ranging from no perpetration to rape. Men and women who did not report any form of perpetration were categorized as *non-perpetrators* (0). Participants who endorsed at least one item referring to sexual touch without penetration (e.g., fondling, kissing) but none on attempted coercion, coercion, attempted rape, and rape were categorized as perpetrators of *sexual contact* (1). Participants endorsing at least one item of attempted vaginal, oral, or anal penetration through verbal pressure but none of coercion, attempted rape, and rape were classified as perpetrators of *attempted coercion* (2).

Those who reported at least one incident of verbally pressured completed vaginal, oral, or anal penetration but no attempted rape or rape were assigned as perpetrators of *coercion* (3). Participants reporting at least one incident of attempted vaginal, oral, or anal penetration through the exploitation of the victim's intoxicated state or the use or threat of physical force were categorized as perpetrators of *attempted rape* (4). Participants were categorized as perpetrators of *rape* (5) if they endorsed at least one item of vaginal, oral, or anal penetration through the exploitation of the victim's intoxicated state or the use or threat of physical force.

Due to zero prevalence of some categories, the six initial categories were subsequently summarized into three groups: (0) *No perpetration*, (1) *sexual coercion*, including sexual contact, attempted sexual coercion, and sexual coercion, and (2) *attempted rape and rape*. The prevalence rates based on this three-level sexual aggression score, broken down by country, measurement point, and gender, are displayed in the Supplementary Material.

Measurement Invariance across Countries and Gender Groups

Measurement invariance across country and gender groups was tested for all scales except for religiosity because this construct was assessed by only two items, resulting in an under-identified and therefore untestable model (cf., Kline, 2011). The model of initiation assertiveness was just-identified because it was based on three items, so that its factor variance was constrained to 1 (cf., Kline, 2011). Across countries, partial scalar invariance was given for all scales, enabling meaningful comparisons between participants in Chile and Turkey. Across gender groups, metric invariance was found for initiation assertiveness, whereas for all other scales partial scalar invariance was given. Detailed information about fit indices and model comparisons is presented in the Supplementary Material.

Descriptive Statistics and Bivariate Correlations of the Predictor Variables

Means and standard deviations of all predictor variables, broken down by country and gender, as well as bivariate correlations in both the Chilean and Turkish sample are presented in Table 1. To test differences between countries and handle missing data, we conducted separate one-way analyses of variance for each construct and used a corrected alpha level of $p < .01$ to account for multiple comparisons ($.05/5 = .01$). Scores of risky sexual scripts, risky sexual behavior, and initiation assertiveness were significantly higher in Turkey than in Chile, all $ps < .001$. By contrast, Chilean participants reported higher sexual self-esteem and religiosity than did participants in Turkey, all $ps < .001$.

Table 1

Means and Bivariate Correlations of Predictors at T1

Construct	Range	Chilean sample			Turkish sample								
		M (SD)	M _f (SD)	M _m (SD)	M	M _f (SD)	M _m (SD)	(1)	(2)	(3)	(4)	(5)	
(1) Risky sexual scripts	1-25	6.68 (2.75)	6.29*** (2.64)	7.88*** (2.75)	8.52 (3.12)	8.06*** (3.00)	9.21*** (3.17)	-	.45***	.18***	.13***	-	-.33***
(2) Risky sexual behavior ¹	-	-0.07 (0.55)	-0.12*** (0.52)	0.06*** (0.60)	0.09 (0.56)	0.03*** (0.48)	0.18*** (0.66)	.46***	-	.01	.04	-	-.10**
(3) Sexual self-esteem	1-5	4.03 (0.58)	4.05 (0.57)	3.95 (0.62)	3.92 (0.61)	3.88 (0.63)	3.98 (0.57)	-.03	-.08*	-	.42***	-	-.18***
(4) Initiation assertiveness	1-5	3.71 (0.97)	3.79*** (0.95)	3.48*** (1.02)	4.03 (0.83)	4.09** (0.81)	3.92** (0.85)	.08*	.01	.34***	-	-	-.13***
(5) Religiosity	1-10	5.57 (2.59)	5.68 (2.64)	5.22 (2.41)	3.82 (2.42)	3.81 (2.39)	3.84 (2.48)	-.25***	-.09**	.04	.03	-	-

Note: ¹z-standardized; f = female, m = male. Above the diagonal: correlation coefficients for Turkey; below the diagonal: correlation coefficients for Chile. Means and correlation coefficients in bold are significantly different between Chile and Turkey ($p < .001$). *P*-values for gender differences and correlation coefficients: * $p < .05$, ** $p < .01$, *** $p < .001$.

With respect to gender differences, again a corrected alpha level of $p < .01$ (.05/5) was used. Men in both the Chilean and Turkish sample had more risky sexual scripts and reported more risky sexual behavior than did women, all $ps < .001$. By contrast, women scored higher on initiation assertiveness than did men in both samples, $p < .001$. No significant gender differences were found on the remaining variables.

Bivariate correlation analyses showed that, in line with our prediction, risky sexual scripts were positively associated with risky sexual behavior and initiation assertiveness, and negatively linked to religiosity in both countries. Risky sexual scripts were also positively correlated with sexual self-esteem in the Turkish sample, whereas in the Chilean sample, both predictors were uncorrelated. Risky sexual behavior was negatively linked to religiosity in both countries, whereas a negative association with sexual self-esteem was found in Chile only. Among both Chilean and Turkish participants, sexual self-esteem correlated positively with initiation assertiveness, however, initiation assertiveness was uncorrelated with risky sexual behavior. In the Turkish but not Chilean sample, religiosity was negatively linked to sexual self-esteem and initiation assertiveness.

Comparisons of correlation coefficients between countries were made by employing Fisher's *r*-to-*z* transformation and adopting a corrected alpha level of $p < .005$ ($p < .05/10$). Analyses revealed that sexual self-esteem was more strongly linked to risky sexual scripts ($z = -4.64, p < .001$) and religiosity ($z = 4.94, p < .001$), and religiosity was more strongly linked to initiation assertiveness ($z = 3.50, p < .001$) among Turkish participants than Chilean participants.

Path Analysis for the Prediction of Sexual Aggression Perpetration

The path model linking risk factors at T1 to sexual aggression perpetration at T2 is presented in Figure 1. First, a moderating impact of gender on the proposed paths was examined separately in the Chilean and Turkish sample. In the Chilean sample, the model fit of both the constrained and unconstrained model was good; for the constrained model, $\chi^2(25, N = 1,092) = 22.120, p = .629, TLI = 1.010, CFI = 1.000, RMSEA = 0.000$ 90% CI [.000, .029]; for the unconstrained model, $\chi^2(8, N = 1,092) = 7.452, p = .489, TLI = 1.006, CFI = 1.000, RMSEA = 0.000$ 90% CI [.000, .048]. The comparison of the two models showed that the model fit of the unconstrained model was not significantly better, Satorra-Bentler scaled chi-square difference test $\chi^2(17) = 14.748, p = .614$. In the Turkish sample, the model fit of both the constrained and unconstrained model was also good; for the constrained model, $\chi^2(25, N = 885) = 36.396, p =$

.066, TLI = 0.966, CFI = 0.980, RMSEA = 0.032 90% CI [.000, .053]; for the unconstrained model, $\chi^2(8, N = 885) = 16.171, p < .05$, TLI = 0.923, CFI = 0.985, RMSEA = 0.048 90% CI [.010, .082]. Again, the model fit of the constrained and unconstrained model did not differ significantly, Satorra-Bentler scaled chi-square difference test $\chi^2(17) = 20.718, p = .239$, so the more parsimonious constrained model was accepted as the final model. These findings suggest that in both samples the paths held equally for men and women.

Second, a multi-group model by country was tested. We included gender as covariate to account for gender differences in the means of the predictor variables. The model fit of both the constrained and unconstrained model was good, for the constrained model, $\chi^2(32, N = 1,983) = 87.838, p < .001$, TLI = 0.920, CFI = 0.954, RMSEA = 0.042 90% CI [.032, .053]; for the unconstrained model, $\chi^2(8, N = 1,983) = 14.118, p = .079$, TLI = 0.965, CFI = 0.995, RMSEA = 0.028 90% CI [.000, .051]. However, the fit of the unconstrained model was significantly better compared to the constrained model, $\chi^2(24) = 72.813, p < .001$. Based on these findings, the unconstrained model was selected as the final model. Figure 1 presents the path coefficients for the Chilean and Turkish sample. A complete table comprising all indirect paths is presented in the Supplementary Material.

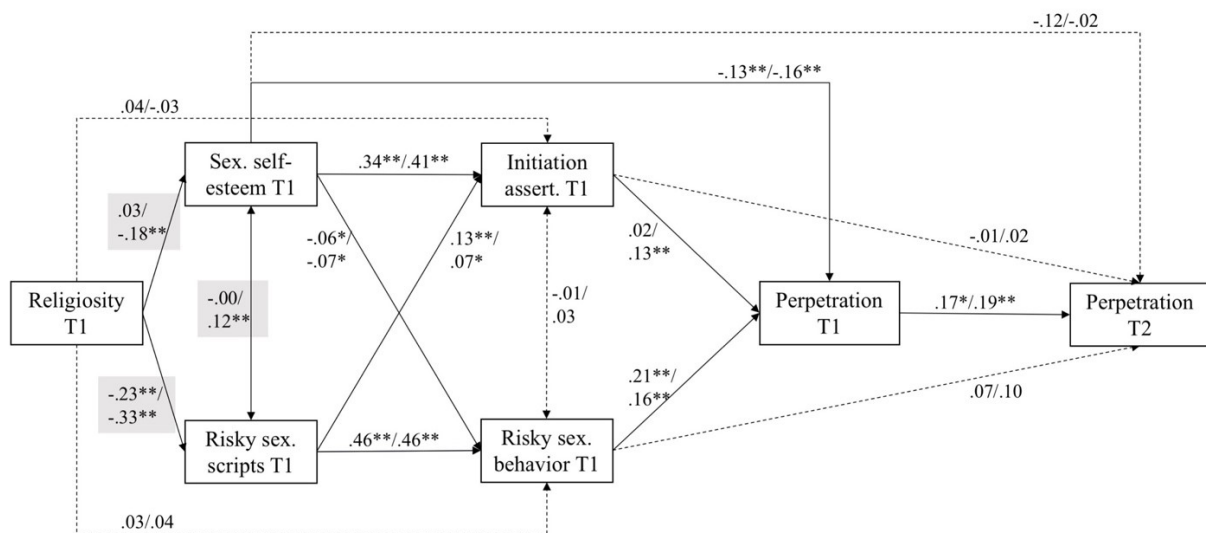


Figure 1. Prediction of sexual aggression perpetration. All constructs controlled for gender. The first standardized path coefficients apply for Chilean participants, the second standardized path coefficients apply for Turkish participants. The shaded coefficients were significantly different between the Chilean and the Turkish sample, $p < .01$ (99% CI). Model fit: $\chi^2(8, N = 1,983) = 14.118, p = .079$, TLI = 0.965, CFI = 0.995, RMSEA = 0.028 90% CI [.000, .051]. * $p < .05$ (95% CI), ** $p < .01$ (99% CI).

In line with our hypotheses, there were significant indirect pathways to perpetration at T2 via past perpetration. As predicted, more risky sexual scripts indirectly increased the probability of sexual aggression perpetration at T2 through more risky sexual behavior and past perpetration in both the Chilean ($\beta = .02$, 95% CI [.003, .034]) and Turkish sample ($\beta = .01$, 99% CI [.001, .037]). However, our hypothesis that risky sexual scripts would predict perpetration at T2 through initiation assertiveness at T1 was not supported.

In line with our prediction, higher sexual self-esteem was associated with higher initiation assertiveness, and indirectly increased the probability of sexual aggression perpetration at T2 through perpetration at T1, but only in the Turkish sample ($\beta = .01$, 99% CI [.001, .029]). By contrast, the predicted pathway from sexual self-esteem to perpetration at T2 via risky sexual behavior and perpetration at T1 was nonsignificant in both samples.

Higher religiosity indirectly decreased the probability of sexual aggression perpetration at T2 via less risky sexual scripts, less risky sexual behavior, and a lower likelihood of perpetration at T1 in both the Chilean ($\beta = -.004$, 95% CI [-.008, -.001]) and Turkish sample ($\beta = -.01$, 95% CI [-.010, -.001]), confirming our hypothesis. However, the indirect path from religiosity to perpetration at T2 through risky sexual scripts, initiation assertiveness, and past perpetration was nonsignificant in both samples. In the Turkish sample only, higher religiosity increased the likelihood of perpetration at T2 via lower sexual self-esteem and a higher probability of perpetration at T1 ($\beta = .01$, 95% CI [.001, .014]). However, the expected pathways from religiosity via sexual self-esteem, risky sexual behavior/initiation assertiveness, and perpetration at T1 were not confirmed in either sample. Similarly, the hypothesized indirect pathways from religiosity to perpetration at T2 through risky sexual behavior/initiation assertiveness and perpetration at T1 were nonsignificant. Against expectation, our model variables did not prospectively predict sexual aggression perpetration at T2. All links were indirect via perpetration at T1.

Discussion

Despite alarmingly high rates of sexual aggression perpetration among both men and women (e.g., Krahe et al., 2015), the evidence on predictors is limited and built predominantly on all-male samples from Western countries. In particular, there is little evidence available from Chile and Turkey (Schuster & Krahe, 2017a, 2017b). To address this shortage, the present study sought to examine predictors of sexual aggression perpetration among male and female college students in Chile and Turkey using a two-wave longitudinal design.

On a dichotomous measure of sexual aggression perpetration, similar rates were found at T1 in both the Chilean and Turkish sample (Chilean sample: 30.5% of men and 17.4% of women; Turkish sample: 33.1% of men and 17.6% of women). At T2, except for Turkish women, rates were lower in both countries, which is an expected finding given that T2 covered a shorter time period (the last 12 months) than T1 (since the age of consent). At the same time, a country difference emerged, with substantially higher rates in Turkey (26.6% of men and 21.9% of women) than in Chile (17.6% of men and 7.8% of women). Why it is that prevalence rates since the age of consent are similar in both countries, whereas rates in the past year differ substantially cannot be decided conclusively on the basis of the current data and requires further investigation and replication in future studies.

The sexual aggression perpetration rates of the Chilean sample are the first for college students in this country, precluding comparisons with other national data. Rates reported by non-college populations were found to be lower, ranging between 0% and 1.6% for women and between 0.8% and 5.5% for men (see Schuster & Krahe, 2017a, for a review). However, these prevalence rates were based on different definitions and time periods, rendering comparisons problematic. In a female college student sample from Turkey, Aslan, Vefikuluçay, Zeyneloğlu, Erdost, and Temel (2008) found a lower perpetration rate of 11.1% but only forced sexual intercourse in a relationship was assessed. With respect to the international literature, 12-months prevalence rates similar to those in Chile at T2 have been found, for example, in Belgium and China, and rates similar to those in Turkey at T2 have been found, for instance, in India and Singapore (Chan, Straus, Brownridge, Tiwari, & Leung, 2008). However, this comparative study only considered sexually aggressive behavior toward a dating partner, whereas perpetration reports in the present study were not limited to the relationship context.

Regarding gender differences in the Chilean sample at both data waves and in the Turkish sample at T1, significantly more men than women reported sexually aggressive behavior, confirming previous evidence (e.g., Krahe & Berger, 2013). In the Turkish sample at T2, the perpetration rate was also higher among men than women, but the gender difference failed to reach significance.

One of the main purposes of the present study was to examine the associations between risky sexual scripts and sexual aggression perpetration, both cross-sectionally and over time. As expected, more risky sexual scripts at T1 increased the probability of perpetration at T2 through more risky sexual behavior and a higher likelihood of perpetration at T1 in both the Chilean and the Turkish sample. This finding is in line with previous evidence from Brazil and Germany (D'Abreu & Krahe, 2014; Krahe et al., 2007), underscoring the cross-cultural

importance of sexual scripts. Although more risky sexual scripts were linked to higher initiation assertiveness in both samples, the hypothesized indirect path from risky sexual scripts to perpetration at T2 via initiation assertiveness and perpetration at T1 was not confirmed. In the Chilean sample, this was due to the nonsignificant association between initiation assertiveness and past perpetration, whereas in the Turkish sample, the indirect effect just failed to reach significance. Thus, more research is needed to examine this pathway to perpetration in different cultures. Moreover, it should be noted that the indirect effects on perpetration at T2 of scripts, as well as all other model variables discussed below, went via perpetration at T1. Thus, the prediction that they would prospectively predict perpetration could not be confirmed.

For sexual self-esteem, we expected a differential function depending on the respective mediators. The hypothesized pathway from sexual self-esteem to sexual aggression perpetration at T2 via risky sexual behavior and past perpetration was not confirmed in either sample. However, in the Turkish sample, higher sexual self-esteem increased the probability of perpetration at T2 via higher initiation assertiveness and a higher likelihood of perpetration at T1, suggesting high sexual self-esteem as a risk factor of perpetration. Thus, the effect of sexual self-esteem on perpetration was not generalizable across Chile and Turkey. It depended on the link between initiation assertiveness and perpetration at T1, which has implications for the development of adequate intervention strategies. For example, the increase of sexual self-esteem or sexual assertiveness, as a target outcome in different intervention programs to reduce sexual victimization (e.g., Gidycz et al., 2015), may be considered as a potential risk factor of perpetration in some cultures if promoting higher initiation assertiveness.

It is noteworthy that initiation assertiveness and sexual aggression perpetration at T1 were positively associated in the Turkish sample, whereas this path was nonsignificant in the Chilean sample. Even though in both societies sexuality is regarded as a taboo topic, there may be more societal restrictions on sexual behavior in Turkey than in Chile. As the 2014 World Values Survey revealed, almost 8 in 10 young people in Turkey strongly endorsed the view that premarital sex is never justified, compared to just over 1 in 20 young people in Chile (World Values Survey Association, 2010-2014). These restrictive norms are also reflected in the sexual behavior of our samples: Age at first sexual intercourse was significantly lower among participants in Chile than in Turkey. Hence, based on the disapproval of sexual relations by their society, young adults in Turkey may have less liberties to explore their own sexuality, which involves, for example, knowing one's own and the partner's sexual limits. This may blur the boundaries between being assertive and being aggressive.

The extent to which religiosity relates to sexuality-related cognitions and behavior has mainly been studied in Christian samples, with little research attention to other religious beliefs. In the present study, higher religiosity was associated with less risky sexual scripts in both the Chilean and Turkish samples, replicating a previous finding from Poland (Tomaszewska & Krahé, 2018). In addition, our prediction that high religiosity would decrease the probability of sexual aggression perpetration at T2 through less risky sexual scripts, less risky sexual behavior, and a lower likelihood of past perpetration was confirmed in both the Chilean and Turkish sample, indicating a protective function of high religiosity. However, the expected pathway from religiosity to perpetration at T2 via risky sexual scripts, initiation assertiveness, and perpetration at T1 was not confirmed.

With respect to religiosity and sexual self-esteem, this link was significantly negative in the Turkish sample but nonsignificant in the Chilean sample, which may be due to more restrictions on sexual behavior in Islam. For example, in a recent study conducted in Canada, African-Muslim youth were less likely to report vaginal intercourse and masturbation than Black-Christian, Caribbean-Christian and African-Christian youth (Maticka-Tyndale, Kerr, & Mihan, 2016). In addition, age at first sexual intercourse in countries with Muslim majority is generally higher compared to Western countries (e.g., Yaşan, Essizoglu, & Yildirim, 2009). Hence, engaging in sexual activities and sexual exploration may be more restricted, hindering the development of sexual self-esteem (Zeanah & Schwarz, 1996).

Due to the significant association between religiosity and sexual self-esteem in the Turkish sample only, high religiosity increased the probability of sexual aggression perpetration at T2 through lower sexual self-esteem and a higher likelihood of perpetration at T1. However, the predicted pathway from religiosity to perpetration at T2 via sexual self-esteem, initiation assertiveness/risky sexual behavior, and past perpetration failed to reach significance. Due to the nonsignificant association between religiosity and sexual self-esteem in the Chilean sample, these pathways were not found in this group. Thus, high religiosity had a protective function in the Chilean sample and both a risk and protective function in the Turkish sample based on its differential impact on risky sexual scripts and sexual self-esteem. Accordingly, intervention strategies have to focus particularly on the respective mediators in a culture to effectively prevent sexual aggression perpetration.

With respect to the impact of religiosity on risky sexual behavior and sexual assertiveness, past findings have been inconsistent, presenting negative or nonsignificant associations. In the present study, the links between religiosity and the respective constructs were nonsignificant in both samples, as previously reported by Tomaszewska and Krahé (2018)

regarding risky sexual behavior and Schooler, Ward, Merriwether, and Caruthers (2005) regarding sexual assertiveness. Thus, future research is needed to explore under which conditions religiosity may have an impact on these sexuality-related cognitions and behaviors.

Strengths and Limitations

Our study has several strengths and limitations. A main strength is that the present study is, to our knowledge, the first to cross-culturally examine predictors of sexual aggression perpetration based on theoretical considerations for the selection of the included countries. Given the limited evidence on risk factors of perpetration in Chile and Turkey (see Schuster & Krahe, 2017a, 2017b, for reviews), our findings enable a better understanding of sexual aggression in these countries and, at the same time, contribute to the international evidence base. In contrast to a large body of past research, we addressed perpetration not only among men but also among women, following a gender-inclusive approach (see Turchik, Hebenstreit, & Judson, 2016, for an outline). Because the same study design and measures were used in both countries, the data can be compared without heterogeneity due to differences in methodology.

At the same time, several limitations have to be acknowledged. One limitation is the reliance on convenience samples of college students in both countries. Although we were able to recruit college students from different Chilean and Turkish universities, state universities in Ankara, where the Turkish study was conducted, tend to have a very liberal student body. Therefore, our findings may not generalize to students in other Turkish universities. By contrast, participants in Chile came from both private and state universities in Santiago and Valparaíso that attract students from different regions and socio-economic backgrounds, comprising a more representative student body. Future research should seek representative or random samples to determine whether same prevalence rates and associations are obtained. A second limitation refers to the high drop-out rates in both countries. One explanation may be the lack of incentives because, unlike similar studies with lower attrition rates (e.g., Krahe & Berger, 2017b), participants did not receive financial compensation for their participation. However, comparisons between participants who dropped out after T1 and those who remained did not reveal any differences in any of our model variables. Third, religiosity was assessed with only two items. Future research should employ a more fine-grained measure of religiosity, considering for example behavioral aspects, such as regular praying and attendance of religious services, or a more detailed assessment of religious values and norms.

Despite these limitations, the findings from the current study created a basis for future research on sexual aggression in two countries that do not have an established research tradition in this field. In addition, it contributed cross-cultural evidence to the international knowledge base, which is mainly built on evidence from Western countries. In particular, our results emphasize the cross-cultural importance of sexual scripts for the understanding of sexual aggression perpetration. Building on our findings, intervention programs should target the modification of risk elements in sexual scripts for consensual sex to reduce risky sexual behavior and thereby sexual aggression perpetration. At the same time, intervention strategies targeting sexual self-esteem and/or religiosity should be culturally sensitive, considering their risk or protective function depending on different mediating pathways.

Given the high prevalence of sexual aggression perpetration among college students in Chile and Turkey revealed by the present study, policy measures are much-needed to address the problem of sexual aggression among college students in both countries. Particularly, considering the lack of adequate sex education in schools and universities, the topic of sexual aggression should be made a compulsory element in the teaching curricula. Programs of sex education should address sexual consent and the boundary between being assertive and being aggressive to tackle sexual aggression perpetration.

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Supplementary Material

1) Prevalence Rates of Sexual Aggression Perpetration (Three-Level Sexual Aggression Score)

Table SM1

Sexual Aggression Perpetration in Percent at Both Measurement Waves, Broken Down by Country Sample and Gender

	T1				T2			
	Chilean sample		Turkish sample		Chilean sample		Turkish sample	
	f	m	f	m	f	m	f	m
No perpetration	82.6***	69.5***	82.4***	66.9***	92.2	82.4	78.1	73.4
Sexual coercion ¹	8.6	11.3	8.1	12.6	4.2	5.4	8.8	11.4
Attempted rape and rape	8.8***	19.2***	9.5***	20.5***	3.6**	12.2**	13.1	15.2

Note: f = female, m = male.¹Participants who reported sexual contact, attempted sexual coercion, or coercion. ** $p < .01$; *** $p < .001$.

2) Measurement Invariance across Countries

Table SM2

Measurement Invariance across Chilean and Turkish Participants

	χ^2	df	RMSEA [90% CI]	TLI	CFI	Δ CFI
<i>Risk elements in sexual scripts</i>						
configural	391.676***	116	0.049 [0.044, 0.054]	0.947	0.966	-
metric	456.113***	129	0.051 [0.046, 0.056]	0.944	0.960	-.006
scalar	1013.641***	142	0.079 [0.074, 0.083]	0.863	0.893	-.067
partial scalar	544.126***	137	0.055 [0.050, 0.060]	0.934	0.950	-.010
<i>Normative acceptance of risk factors</i>						
configural	353.429***	92	0.054 [0.048, 0.060]	0.958	0.971	-
metric	431.032***	103	0.057 [0.051, 0.062]	0.953	0.964	-.007
scalar	1104.622***	114	0.094 [0.089, 0.099]	0.873	0.890	-.074
partial scalar	508.551***	111	0.060 [0.055, 0.065]	0.948	0.956	-.008
<i>Sexual self-esteem</i>						
configural	189.620***	66	0.043 [0.036, 0.051]	0.938	0.963	-
metric	246.169***	76	0.048 [0.041, 0.054]	0.925	0.948	-.015
partial metric	218.247***	75	0.044 [0.037, 0.051]	0.936	0.957	-.006
scalar ¹	668.300***	85	0.083 [0.077, 0.089]	0.771	0.823	-.134
partial scalar	247.754***	80	0.046 [0.040, 0.053]	0.930	0.949	-.008
<i>Initiation assertiveness</i>						
configural	8.580*	2	0.058 [0.022, 0.100]	0.969	0.990	-
metric	5.292	3	0.028 [0.000, 0.066]	0.993	0.996	+.006
scalar	126.634***	5	0.157 [0.134, 0.181]	0.773	0.811	-.185
partial scalar	5.963	4	0.022 [0.000, 0.057]	0.995	0.997	+.001

Note: ¹ The constraint on one loading was released; * $p < .05$, *** $p < .001$.

3) Measurement Invariance across Gender Groups

Table SM3

Measurement Invariance across Male and Female Participants

	χ^2	df	RMSEA [90% CI]	TLI	CFI	Δ CFI
<i>Risk elements in sexual scripts</i>						
configural	382.312***	116	0.048 [0.043, 0.054]	0.951	0.969	-
metric	443.375***	129	0.050 [0.045, 0.055]	0.948	0.963	-.006
scalar	1396.332***	142	0.094 [0.090, 0.099]	0.811	0.853	-.110
partial scalar	539.047***	137	0.054 [0.050, 0.059]	0.937	0.953	-.010
<i>Normative acceptance of risk factors</i>						
configural	346.130***	92	0.053 [0.047, 0.059]	0.959	0.972	-
metric	373.165***	103	0.051 [0.046, 0.057]	0.961	0.970	-.002
scalar	506.681***	114	0.059 [0.054, 0.064]	0.949	0.956	-.014
partial scalar	469.186***	112	0.057 [0.051, 0.062]	0.953	0.960	-.010
<i>Sexual self-esteem</i>						
configural	245.276***	66	0.052 [0.045, 0.059]	0.908	0.945	-
metric	263.360***	76	0.050 [0.043, 0.057]	0.917	0.942	-.003
scalar	492.112***	86	0.069 [0.063, 0.075]	0.840	0.875	-.067
partial scalar	300.140***	84	0.051 [0.045, 0.057]	0.913	0.933	-.009
<i>Initiation assertiveness</i>						
configural	0.838	2	0.000 [0.000, 0.049]	1.005	1.000	-
metric	2.042	3	0.000 [0.000, 0.046]	1.003	1.000	.000
scalar	158.868***	5	0.176 [0.153, 0.200]	0.715	0.762	-.238
partial scalar	53.453***	4	0.112 [0.086, 0.139]	0.885	0.924	-.076

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

4) Complete List of Indirect Paths

Table SM4

Standardized Indirect Paths to Sexual Aggression Perpetration at T2

Indirect paths	Chilean sample	Turkish sample
Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	.04* [-.007, .073]	.03** [.001, .079]
Risky sexual scripts T1 → Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	.02* [-.003, .034]	.01** [.001, .037]
Risky sexual scripts T1 → Risky sexual behavior T1 → Perpetration T2	.03 [-.017, .080]	.04 [-.027, .117]
Risky sexual scripts T1 → Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [-.001, .003]	.00 [.000, .006]
Risky sexual scripts T1 → Initiation assertiveness T1 → Perpetration T2	-.00 [-.018, .012]	.00 [-.009, .014]
Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [-.006, .019]	.03** [.001, .067]
Sexual self-esteem T1 → Perpetration T1 → Perpetration T2	-.02* [-.053, -.004]	-.03** [-.079, -.002]
Sexual self-esteem T1 → Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [-.002, .007]	.01** [.001, .029]
Sexual self-esteem T1 → Initiation assertiveness T1 → Perpetration T2	-.00 [-.045, .032]	.01 [-.054, .061]
Sexual self-esteem T1 → Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	-.00 [-.007, .000]	-.00 [-.006, .000]
Sexual self-esteem T1 → Risky sexual behavior T1 → Perpetration T2	-.00 [-.017, .001]	-.01 [-.025, .002]
Religiosity T1 → Risky sexual scripts T1 → Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	-.004* [-.008, -.001]	-.01* [-.010, -.001]
Religiosity T1 → Risky sexual scripts T1 → Risky sexual behavior T1 → Perpetration T2	-.01 [-.019, .004]	-.02 [-.039, .009]
Religiosity T1 → Risky sexual scripts T1 → Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [-.001, .000]	-.00 [-.002, .000]
Religiosity T1 → Risky sexual scripts T1 → Initiation assertiveness T1 → Perpetration T2	.00 [-.003, .004]	.00 [-.005, .003]
Religiosity T1 → Sexual self-esteem T1 → Perpetration T1 → Perpetration T2	-.00 [-.004, .000]	.01* [.001, .014]
Religiosity T1 → Sexual self-esteem T1 → Perpetration T2	-.00 [-.018, .002]	.00 [-.019, .029]
Religiosity T1 → Sexual self-esteem T1 → Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [.000, .000]	-.00 [-.005, .000]
Religiosity T1 → Sexual self-esteem T1 → Initiation assertiveness T1 → Perpetration T2	.00 [-.003, .001]	-.00 [-.012, .010]

Indirect paths	Chilean sample	Turkish sample
Religiosity T1 → Sexual self-esteem T1 → Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	.00 [-.000, .000]	.00 [.000, .001]
Religiosity T1 → Sexual self-esteem T1 → Risky sexual behavior T1 → Perpetration T2	.00 [-.001, .000]	.00 [.000, .005]
Religiosity T1 → Initiation assertiveness T1 → Perpetration T1 → Perpetration T2	.00 [.000, .001]	-.00 [-.004, .000]
Religiosity T1 → Initiation assertiveness T1 → Perpetration T2	.00 [-.010, .003]	-.00 [-.011, .004]
Religiosity T1 → Risky sexual behavior T1 → Perpetration T1 → Perpetration T2	.00 [-.001, .004]	.00 [-.001, .006]
Religiosity T1 → Risky sexual behavior T1 → Perpetration T2	.00 [-.001, .012]	.00 [-.002, .023]

Note: * $p < 0.05$ [95% CI]; ** $p < 0.01$ [99% CI].

11. General Discussion

The purpose of this doctoral research was to examine the prevalence and predictors of sexual aggression within but also across Chile and Turkey, pursuing three major aims: (1) to systematically review studies on the prevalence and predictors of sexual aggression victimization and perpetration in Chile and Turkey, (2) to collect original data to examine the prevalence of sexual aggression victimization and perpetration among male and female college students in Chile and Turkey, and (3) to study predictors of sexual aggression victimization and perpetration across participants in Chile and Turkey based on a two-wave longitudinal design.

To achieve these aims, the first part of this thesis systematically reviewed the available evidence on prevalence rates and predictors of sexual aggression victimization and perpetration in Chile (Chapter 5) and Turkey (Chapter 6), providing a comprehensive overview of past research in these countries. Addressing limitations of previous work, the next part presented a two-wave longitudinal study among female and male college students in Chile and Turkey. Based upon this, Chapters 6 and 7 examined in-depth the prevalence of experiencing and engaging in sexual aggression since the age of consent, assessed at T1, in both Chile and Turkey. The next chapters addressed the prediction of sexual aggression across these countries. Two path models were conceptualized in which participants' risky scripts for consensual sex, risky sexual behavior, sexual self-esteem, sexual assertiveness, and religiosity were assessed at T1 as predictors of sexual aggression victimization (Chapter 8) and perpetration (Chapter 9) at T2 in the following 12 months, mediated through past experiences of sexual aggression victimization or perpetration, respectively. The main findings of this program of research are summarized and discussed in the following sections.

11.1. Prevalence of Sexual Aggression Victimization and Perpetration in Chile and Turkey

One major aim of this research program was to review the available evidence on the prevalence of sexual aggression victimization and perpetration provided by past studies in both Chile and Turkey. In working toward this goal, two systematic, multi-stage literature searches were conducted to locate relevant records. Based on pre-defined eligibility criteria, a total of 28 studies in Chile and 56 studies in Turkey were identified for inclusion. Compiling evidence on the prevalence of experiencing and engaging in sexual aggression among both men and women, these reviews are the first of their kind in each country.

All the studies that were included in the respective reviews provided prevalence rates of sexual victimization, however, data on sexual aggression perpetration was severely limited,

with only four studies in Chile and two studies in Turkey providing prevalence rates. It is noteworthy that this imbalance has also been identified in previous reviews on sexual aggression in both developed and developing countries (e.g., Krahe et al., 2014; Winzer, 2016; Winzer et al., 2017), which may mirror the fact that sexual aggression perpetration is in general a socially unaccepted and stigmatized behavior worldwide. Hence, it may be difficult to collect data on it.

Both systematic reviews revealed a great variability in prevalence rates of sexual victimization, similar to other recent reviews (e.g., Abrahams et al., 2014; Bagwell-Gray et al., 2015; Fedina et al., 2016), which may be related to a lack of conceptual and methodological consistency across studies. First, the heterogeneity in prevalence rates may be attributed, at least partly, to different operational definitions of sexual aggression. In both countries, some studies used very broad definitions, which included the violation of reproductive rights or excessive jealousy, whereas other surveys were based on very narrow ones, which, for example, only considered physically forced sexual intercourse. Second, different measurement tools were applied across the studies, ranging from very general and broad single-item measures to behaviorally-specific questionnaires. Third, the studies included in each review used substantially different time periods for the assessment of sexual aggression. For instance, some studies did not specify any time frame at all, whereas other surveys assessed last-year prevalence rates. Fourth, sample sizes and sampling methods varied widely across studies. While some studies relied on small convenience samples, others used representative samples with several thousand participants. Altogether, these aspects render the comparison of prevalence rates problematic. Suggestions for how future research might deal with this issue are outlined in Chapter 11.3.

A more consistent picture was found for the relationship constellations between victims and perpetrators. Findings of both reviews indicated that sexual aggression occurred mainly among persons known to each other, such as intimate partners or friends, rather than among total strangers, being in line with evidence from the international literature (e.g., Australian Human Rights Commission, 2017; Breiding et al., 2014; Krahe et al., 2015). In addition, both empirical studies on the prevalence of sexual aggression among college students that were included in this doctoral thesis (Studies 3 and 4) revealed the same pattern: Sexual aggression victimization and perpetration were more common between current or former partners and friends/acquaintances than between strangers.

A second major aim of this research project was to empirically examine the prevalence of sexual aggression victimization and perpetration among male and female college students in

Chile and Turkey since the respective age of consent. Although studying men and women as both victims and perpetrators represents a relatively new approach, it acknowledges that both gender groups may experience sexual victimization and may also be perpetrators of sexual aggression (see Fisher & Pina, 2013; Peterson et al., 2011, for reviews). In the original data from Chile, 51.9% of women and 48.0% of men reported at least one instance of sexual victimization, while 26.8% of men and 16.5% of women reported at least one instance of sexual aggression perpetration since the age of 14, the age of consent in Chile. Victimization rates were higher in the original Turkish data, with 77.6% of women and 65.5% of men reporting at least one incident since the age of 15, the age of consent in Turkey. Similar to the perpetration rates in Chile, 28.9% of men and 14.2% of women in the Turkish sample reported that they had made or tried to make another person engage in nonconsensual sexual activities at least once since the age of 15.

With respect to sexual victimization in the original data, the overall rates, particularly in Turkey, are relatively high in comparison to other national and international studies (e.g., Cantor et al., 2015; Krahe & Berger, 2013; Krebs et al., 2007; Lehrer, Lehrer, & Koss, 2013a; Tomaszewska & Krahe, 2015; Toplu-Demirtas, Hatipoğlu-Sümer, & White, 2013). However, they are not unique. In a sample of undergraduate and graduate college students in Istanbul, Turkey, 84% of women self-reported any form of verbal, physical, or visual sexual victimization (Kayı, Yavuz, & Arıcan, 2000). In addition, the review of the prevalence of sexual aggression in Turkey yielded six more studies which produced female prevalence rates between 50% and 75%, indicating that these high victimization rates are not completely uncommon. It is noteworthy that such high rates were revealed not only in Turkey, but in other countries as well. For instance, in a sample of high school students in New Zealand, 76.9% of girls and 67.4% of boys reported sexual victimization, comprising nonconsensual sexual activities from kissing to sexual intercourse (Jackson, Cram, & Seymour, 2000). Furthermore, the cross-cultural study by Krahe et al. (2015), which used the same instrument as in the present research (SAV-S; Krahe & Berger, 2013), also found high rates of sexual victimization. Victimization rates similar to those in the Chilean sample were revealed for both men and women in Greece (45.5% of women and 55.8% of men), for men in Cyprus (49.0% of men), and for women in the Netherlands (52.2% of women).

Regarding the prevalence of sexual aggression perpetration in the original data, the findings in Chile and Turkey were not only similar to each other but also to evidence from international research. For example, in Chan et al.'s (2008) cross-cultural study that assessed sexual coercion in dating relationships among college students in 21 countries, using the revised

Conflict Tactics Scale (CTS2; Straus et al., 1996), similar perpetration rates were found in Australia (25.0% of men and 12.7% of women), Lithuania (22.8% of men and 15.7% of women), and Singapore (27.0% of men and 19.3% of women). Given that these rates only refer to sexual aggression perpetration in intimate relationships, prevalence rates considering other constellations between the victim and perpetrator may be even higher.

In terms of gender differences, although a large body of literature suggests that sexual victimization is more prevalent among women than men (e.g., Banyard et al., 2007; Breiding et al., 2014; Cantor et al., 2015), a contrary picture was found in the present empirical studies. In the Chilean sample, women and men did not differ in their overall rates as well as in most prevalence rates broken down by coercive strategy and relationship constellation. Even though the overall and some of the summarizing categories showed the expected pattern in the Turkish sample, a closer look at prevalences broken down by coercive strategy and victim-perpetrator relationship constellation revealed few differences between women and men. This absence is not completely uncommon, since some recent studies have also not shown many gender differences in victimization rates (e.g., D'Abreu, Krahe, & Bazon, 2013; Hines, Armstrong, Reed, & Cameron, 2012; Tomaszewska & Krahe, 2015). With respect to gender differences in sexually aggressive behavior, prevalence rates were higher among men than women in both samples, confirming past research (e.g., Chan et al., 2008; D'Abreu et al., 2013; Krahe & Berger, 2013; Williams et al., 2014).

One question that emerges from these empirical findings is how cultural factors may have contributed to the high victimization rates among women and men in Chile and Turkey. To date, no systematic research on cultural indicators or norms in relation to sexual aggression has been conducted in these countries, which is why it is important to keep in mind that explanations, at this moment, are tentative and need further research. One factor that may play a role is that societal taboos surrounding sexuality are prevalent in both countries, and sex education is largely limited to reproductive aspects of sexuality, disregarding sexual aggression (Bıkmaz & Güler, 2007; Macintyre et al., 2015). This implies that an open discourse on sexual self-determination and consent is possible neither in most families nor in most institutions, which may undermine young adults' ability to negotiate consensual sexual activities and boundaries or recognize non-consent.

A second factor which may have contributed to the high prevalence of sexual aggression in the original Chilean and Turkish data refers to the double standard of sexuality inherent in both countries (Barrientos Delgado & Silva Segovia, 2014; Essizoğlu et al., 2011). Women who have multiple partners are negatively evaluated by society, as they are called "sluts" and

regarded as “easy”, which in turn may contribute to women’s consent not being respected. By contrast, men are expected to be sexually active and to always want to have sex, whereby refusal from their side may not be taken seriously. In addition, they may feel pressured to fulfill societal expectations regardless of their own needs and wishes.

A third factor concerns conflicting messages. On the one hand, young adults in both countries have unlimited information about liberal sexual lifestyles and gender relations in other parts of the world; on the other hand, both societies adhere to traditional, conservative values, primarily imposed by the Catholic Church in Chile and Islam in Turkey. Accordingly, they are exposed to conflicting messages about sexual relationships, which in turn may contribute to blurred boundaries between consensual sexual contacts and sexual aggression.

Potential explanations for the high victimization rates may hold for both countries, as in each one sex education is strongly limited, sexual double standards prevail, and young adults are exposed to conflicting messages about sexuality. Beyond these tentative explanations, it is quite remarkable that the rate of alcohol use in incidents of sexual aggression victimization and perpetration in Turkey, a Muslim-majority country, was very similar to the rate in Chile, particularly considering that drinking alcohol is forbidden in Islam (Çelen, 2015). In both original data sets, alcohol use was involved in about two-thirds of all incidents of victimization and in about half of all incidents of perpetration, consistent with findings from the international literature (see Abbey et al., 2004, for a review; see Lehrer et al., 2013a, for a Chilean sample). In the Turkish original data, the proportion of alcohol-related incidents of sexual victimization was lower among Muslim participants than among non-Muslim participants, but still substantial, as alcohol was involved in more than half of all incidents. Although alcohol consumption in Turkey is more common than in other countries with a Muslim majority (Ozgür Ilhan, Yildirim, Demirbaş, & Doğan, 2008; WHO, 2014a), it is less socially accepted and less common than in Western societies (Bakar, Gündogar, Ozisik Karaman, & Maral, 2013; Evered & Evered, 2016). Thus, alcohol, with its associated non-normative character, may be interpreted as a signal for a permissive sexual lifestyle, so that using coercion or ignoring a person’s refusal may become more likely. In Chile, rates of alcohol consumption and binge drinking are high (Mason-Jones & Cabieses, 2015; Saldivia & Vizcarra, 2012). Hence, alcohol use, which has been established as a risk factor of sexual aggression perpetration and a vulnerability factor of sexual victimization (see Abbey et al., 2004; Tharp et al., 2013; Ullman & Najdowski, 2011, for reviews), may also play a central role in the high victimization rates in the Chilean sample.

Altogether, the two systematic reviews provide a first comprehensive picture of sexual aggression victimization and perpetration in Chile and Turkey, clearly showing that it is a

serious issue in both countries. In addition, they also help to make research on sexual aggression outside the U.S. and Western Europe more visible and, at the same time, more accessible to the international community of sexual violence researchers, particularly considering that many studies are only available in the respective country's language. By empirically examining the prevalence of victimization and perpetration among male and female college students in Chile and Turkey since the age of consent, both studies revealed that a substantial proportion of young men and women experienced and/or engaged in sexual aggression. Victimization rates were found to be remarkably high, which may be related to several cultural factors, such as the lack of sex education, prevailing double standards for male and female sexuality, conflicting messages about sexuality, and the role of alcohol.

11.2. Predictors of Sexual Aggression Victimization and Perpetration

Over and above assessing prevalence rates, a third major aim of this doctoral research was to examine vulnerability factors, defined as factors associated with an increased probability of sexual victimization, and risk factors, defined as factors associated with an increased probability of sexual aggression perpetration, among male and female college students across Chile and Turkey. As demonstrated by both systematic reviews, there has been no longitudinal study on the prediction of sexual aggression in either of these two countries. In addition, the focus of those limited studies that do investigate correlates has primarily been on situational features or sociodemographic characteristics of the victim and/or perpetrator, often lacking a theoretical justification. Results of these studies yield a largely inconsistent picture. Also, a more global look shows that generally little research attention has been given to sexual aggression in non-Western countries, and cross-cultural studies analyzing prospective risk and/or vulnerability factors are largely absent. Addressing these shortcomings, a two-wave longitudinal study was conducted among male and female college students in both Chile and Turkey. The proposed models for predicting sexual aggression victimization and perpetration were based on the theory of sexual scripts and past empirical evidence on religiosity and sexuality-related cognitions and behavior, enabling cross-cultural analyses for these two countries for the first time.

One major purpose was to study the link between risky sexual scripts for consensual sexual activities, that is, scripts which include elements associated with a heightened likelihood of sexual aggression victimization and perpetration, and experiencing and engaging in sexual aggression. As expected, risky sexual scripts informed corresponding sexual behavior, and thereby increased the probability of sexual aggression victimization and perpetration at T2 through past victimization and perpetration, respectively, in both the Chilean and Turkish

sample. These results not only corroborate previous findings from Brazil (D'Abreu & Krahe, 2014, 2016), Germany (Krahe et al., 2007), and Poland (Tomaszewska & Krahe, 2018, only for victimization), but also demonstrate the importance of risky sexual scripts for the understanding of sexual aggression victimization and perpetration across different cultures.

Furthermore, more risky sexual scripts were negatively linked to refusal assertiveness and positively linked to initiation assertiveness in both samples, supporting Santos-Iglesias and colleagues' (2014) assumption that sexual scripts have an impact on how assertively persons behave in a sexual encounter. As expected, more risky sexual scripts increased the vulnerability to sexual victimization at T2 through lower refusal assertiveness and a higher probability of sexual victimization at T1 in both samples. However, the hypothesized pathway from risky sexual scripts to sexual aggression perpetration at T2 through initiation assertiveness and sexual aggression perpetration at T1 was not supported. In the Chilean sample, this was attributable to the nonsignificant link between initiation assertiveness and sexual aggression perpetration at T1. Although the indirect path was also nonsignificant in the Turkish sample, it is noteworthy that initiation assertiveness and sexual aggression perpetration at T1 were positively associated. As discussed in detail in Study 6 (see Chapter 10), there are hints that young adults' sexuality may be more restricted by societal and religious norms in Turkey than in Chile. For example, premarital sex is socially more disapproved of by Turkish than by Chilean society (World Values Survey Association, 2010-2014), and in the present study, Turkish participants reported a significantly higher age at first sexual intercourse than Chilean participants, which may be a reflection of this difference. Accordingly, their possibilities for sexual exploration may be more limited, interfering with sexual self-determination and knowing the sexual limits of the sexual partner. This aspect in conjunction with the limited information on sexual consent and sexual aggression, as described previously, may contribute to blurred boundaries between being assertive and initiating sexual activities and being sexually aggressive.

With respect to sexual self-esteem, a large body of research has suggested that a positive self-evaluation of worth as a sexual being serves a protective function against sexual victimization (e.g., French et al., 2014; Krahe & Berger, 2017b; Tomaszewska & Krahe, 2018; Van Bruggen et al., 2006). In the present study, high sexual self-esteem decreased the vulnerability to sexual victimization at T2 through higher refusal assertiveness as well as less risky sexual behavior and a lower likelihood of past victimization in both samples, confirming its protective function. Regarding sexually aggressive behavior, both a protective and risk function of sexual self-esteem were expected, depending on the mediating variables. A protective function, as demonstrated in past research among men (Krahe & Berger, 2017a), was

hypothesized for the pathway from sexual self-esteem to sexual aggression perpetration at T2 via risky sexual behavior and past sexual aggression perpetration. Against expectation, the indirect effect was nonsignificant in both samples. However, high sexual self-esteem translated into higher initiation assertiveness, indirectly increasing the probability of sexual aggression perpetration at T2 through a higher probability of sexual aggression perpetration at T1 in the Turkish sample, suggesting a risk function. In the Chilean sample, this pathway was nonsignificant due to the nonsignificant link between initiation assertiveness and sexual aggression perpetration. Accordingly, the impact of sexual self-esteem on sexually aggressive behavior differed for participants in Chile and Turkey, depending on the link between initiation assertiveness and sexual aggression perpetration at T1. This may have implications for prevention strategies which seek to heighten sexual self-esteem or sexual assertiveness (e.g., Gidycz et al., 2015). Such strategies may also increase initiation assertiveness, which may be regarded as a potential risk factor of sexual aggression perpetration in some cultures. Hence, it is important to clarify the fine line between being assertive and being sexually aggressive.

Concerning religiosity, both risk and protective functions for sexual aggression victimization and perpetration were hypothesized, depending on the mediating processes. High religiosity, as expected, decreased the odds of sexual aggression victimization and perpetration at T2 through less risky sexual scripts, less risky sexual behavior, and a lower likelihood of past victimization and perpetration, respectively, in both samples, suggesting a protective function. This finding is in line with previous evidence on sexual victimization (Tomaszewska & Krahe, 2018) and, for the first time, confirms the same process for sexual aggression perpetration. High religiosity also decreased the vulnerability to victimization at T2 through less risky sexual scripts, higher refusal assertiveness, and a lower likelihood of victimization at T1 in the Chilean but not the Turkish sample. The predicted pathway from religiosity to sexual aggression perpetration at T2 through risky sexual behavior, initiation assertiveness, and sexual aggression perpetration at T1, however, was not confirmed in either sample.

It is noteworthy that religiosity and sexual self-esteem were negatively linked in the Turkish sample, whereas this path was nonsignificant in the Chilean sample. As previously outlined, young adults' sexuality may be socially and religiously more controlled and restricted in Turkey than in Chile, which may be reflected, for instance, in the more negative attitudes toward premarital sex and a later sexual onset in Turkey than in Chile (Askun & Ataca, 2007; INJUV, 2017; World Values Survey Association, 2010-2014). There is also evidence that Muslim youth are less sexually experienced than youth with a different religious background (Maticka-Tyndale, Kerr, & Mihan, 2016). Hence, high religiosity may impede sexual

experiences and sexual exploration of young adults in Turkey, which in turn may hinder the associated development of sexual self-esteem (Zeanah & Schwarz, 1996).

Based on this association, in the Turkish sample only, high religiosity increased the likelihood of sexual aggression victimization and perpetration at T2 via lower sexual self-esteem and a higher probability of past victimization and perpetration, respectively, indicating a risk function. However, the expected pathway from religiosity to sexual aggression perpetration at T2 through sexual self-esteem, initiation assertiveness, and sexual aggression perpetration at T1 was not confirmed. The corresponding pathway from religiosity to sexual victimization at T2 through sexual self-esteem, refusal assertiveness, and past victimization was also nonsignificant. Similarly, the proposed pathways from religiosity to sexual aggression victimization and perpetration at T2 through sexual self-esteem, risky sexual behavior, and past sexual aggression victimization and perpetration, respectively, failed to reach significance in both samples. Hence, in Chile, high religiosity served a protective function against sexual aggression victimization and perpetration via less risky sexual scripts, whereas in Turkey, high religiosity had both a risk and a protective function through its differing impact on sexual self-esteem and risky sexual scripts. Based on these findings, prevention efforts should be culturally sensitive.

With respect to the link between religiosity and sexuality-related behavior, the hypothesized pathways from religiosity to sexual aggression victimization and perpetration at T2 through risky sexual behavior, refusal assertiveness (for victimization), and initiation assertiveness (for perpetration) were not confirmed in either the Chilean or Turkish sample. Similarly, other studies did not find a link between religiosity and risky sexual behavior (Tomaszewska & Krahé, 2018) or sexual assertiveness (Schooler, Ward, Merriwether, & Caruthers, 2005). Given that past studies have shown that religiosity has an impact on sexual behavior, for example, on the age of first coitus (see Rostosky et al., 2004, for a review) or contraceptive use (Moreau et al., 2013), more research is necessary to understand which behaviors are influenced and which not.

All in all, the findings demonstrate that risky sexual scripts for consensual sexual activities play a key role in the prediction of sexual aggression victimization and perpetration through their impact on sexual behavior. For sexual self-esteem, consistent with previous research, the results confirmed a protective function of high sexual self-esteem against sexual victimization in both samples. However, high sexual self-esteem increased the odds of sexual aggression perpetration via higher initiation assertiveness in the Turkish sample, indicating a risk function. High religiosity reduced the odds of sexual aggression victimization and

perpetration through less risky sexual scripts and less risky sexual behavior in both samples. In addition, it reduced the vulnerability to sexual victimization through less risky sexual scripts and higher refusal assertiveness in the Chilean sample only. Beyond high religiosity's protective function, it increased the probability of sexual aggression victimization and perpetration through lower sexual self-esteem in the Turkish sample only, demonstrating a differential functioning which depended on the respective mediators.

11.3. Implications for Practice and Future Research

The findings of the present doctoral research have implications for both practice and future research. As revealed by the two systematic reviews, prevalence rates of sexual aggression victimization and perpetration varied widely, which may be attributed to a lack of conceptual and methodological consistency across the included studies. Hence, there is a clear need for a more harmonized approach in future research on sexual aggression, requiring that several conceptual and methodological aspects are addressed by sexual violence researchers.

First, a shared conceptual definition of sexual aggression is greatly needed, providing a common basis for future research and facilitating meaningful comparisons of prevalence rates. Second, methodological limitations of past studies should be addressed by using validated, behaviorally-specific instruments, such as the Sexual Aggression and Victimization Scale (SAV-S; Krahe & Berger, 2013; Krahe et al., 2015, 2016) or the revised Sexual Experiences Survey (SES; Koss et al., 2007), seeking representative samples, and separating nonconsensual sexual interactions and child sexual abuse, which is by definition nonconsensual. Third, taking into account that past research has shown that men may be victims and women may also be perpetrators of sexual aggression (see Fisher & Pina, 2013; Peterson et al., 2011, for reviews), future research should adopt a gender-inclusive approach by considering men and women in both victim and perpetrator roles (see Turchik et al., 2016, for an outline). At the same time, sexual minority groups have been largely neglected by research in both countries, which is why future studies should consider their inclusion, particularly given the high prevalence rates demonstrated by the international literature (see Rothman, Exner, & Baughman, 2011, for a review). In addition, although nine indigenous groups are recognized by the Chilean state, making up about 10% of the total population (Instituto Nacional de Estadísticas, 2014), no study has addressed the presence of sexual aggression in these groups. Considering the fact that studies in North America have revealed a higher risk of sexual victimization in Native Americans (Bachman, Zaykowski, Lanier, Poteyeva, & Kallmyer, 2010; Tjaden & Thoennes, 2000), future research on sexual aggression should recognize these minority groups, adopting

an inclusive approach. Fourth, and finally, good practice criteria proposed for the study of sexual aggression should be followed to promote the quality of research (see Krahé & Vanwesenbeeck, 2016, for an outline).

With respect to the implications of the empirical studies included in this thesis, it is firstly noteworthy that particularly the study on the prevalence of sexual aggression victimization and perpetration among college students in Chile attracted much attention by the Chilean media (newspapers, television, and social media)²², contributing to promoting awareness of this issue. In addition, attention was received not only by the media but also by the research communities in both Chile and Turkey, inspiring future studies.

Given that both empirical studies on the prevalence of sexual aggression among college students in Chile and Turkey revealed relatively high victimization rates, their replication in representative samples of young adults will be an important task for the future. At the same time, an additional qualitative approach may be helpful to better understand and clarify the nature of these incidents, giving participants the opportunity to describe them in their own words behind close-ended questions. Furthermore, although several explanations at the cultural level have been taken into consideration, more culture-sensitive research is needed to confirm its role in shaping sexual relations and sexual expectations, which in turn may legitimize and condone sexual aggression.

Perhaps the most important implication to be drawn from this doctoral research project is the potential contribution of the present findings to the development of theory- and evidence-based intervention programs designed to reduce sexual aggression victimization and perpetration. Although different prevention strategies have been implemented and evaluated by past studies, providing some promising results (e.g., Rothman & Silverman, 2015; Salazar, Vivolo-Kantor, Hardin, & Berkowitz, 2014; Senn et al., 2015), they primarily targeted sexual assault on college campuses in the U.S. The promotion of bystander intervention strategies was a particular focus of these programs, aiming to train skills in peers to intervene in high-risk

²² Articles in Chilean online newspapers (selected examples):

Estudio revela que el 50% de los universitarios chilenos ha sufrido abuso sexual [Study shows that 50% of Chilean college students suffered sexual abuse] (2016, October 5). *24 horas*. Retrieved from <http://www.24horas.cl/nacional/estudio-revela-que-el-50-de-los-universitarios-chilenos-ha-sufrido-abuso-sexual-2153600>

Ramírez, N. (2016, October 5). Estudio revela que la mitad de los universitarios chilenos declara haber sufrido un abuso sexual [Study reveals that half of Chilean college students report having suffered sexual abuse]. *Emol*. Retrieved from http://www.emol.com/noticias/Nacional/2016/10/05/825005/Estudio-revela-que-la-mitad-de-los-universitarios-chilenos-declara-haber-sufrido-abuso-sexual.html#_=_

Reyes, C. (2016, October 5). Estudio arroja que la mitad de los estudiantes universitarios reconoce un abuso sexual. [Study reveals that half of college students admits sexual abuse]. *BioBioChile.cl*. Retrieved from <http://www.biobiochile.cl/noticias/nacional/chile/2016/10/05/estudio-arroja-que-la-mitad-de-los-estudiantes-universitarios-reconoce-un-abuso-sexual.shtml>

situations. However, this approach may not be easily transferable to other cultural environments, particularly to those with a different campus culture, as is the case in Chile and Turkey.

Based on the findings of the empirical studies on the prediction of sexual aggression, intervention efforts should aim at modifying risky sexual scripts and risky sexual behavior to decrease the vulnerability to sexual victimization and the risk of sexual aggression perpetration. More precisely, they should be designed so as to reduce the extent to which the use of alcohol, the ambiguous communication of sexual intentions, and the engagement in casual sexual activities with persons who are not well known are seen as typical parts of consensual sex as well as the extent to which these features are part of actual sexual behavior. In addition, intervention programs should enhance sexual self-esteem and refusal assertiveness but reduce initiation assertiveness, so that the partner's sexual limits are respected, emphasizing the fine line between being sexually assertive and being sexually aggressive. As multi-component strategies are more effective than single-variable interventions (DeGue et al., 2013, 2014), a program that aims at changing risky sexual scripts and risky sexual behavior, increasing sexual self-esteem and refusal assertiveness, as well as reducing initiation assertiveness may be an effective, evidence-based strategy to decrease the probability of experiencing and engaging in sexual aggression. This kind of intervention would also fill a gap in both Chile and Turkey, where prevention programs against sexual aggression are lacking.

A further point that emerged from the present studies is that the taboo of sexuality and sexual aggression in combination with the lack of adequate sex education may have contributed to the presence of sexual aggression in both countries. Therefore, policy measures are clearly needed, which, for example, make the topics of sexual consent and sexual aggression compulsory in school curricula and, similar to developments in the U.S. (White House Task Force to Protect Students from Sexual Assault, 2017), prevention programs mandatory to incoming college students.

Altogether, the present studies have contributed substantially to cross-cultural research efforts, but much more research that includes diverse samples in terms of ethnicity/culture, religion, and sexual orientation is clearly needed.

11.4. Strengths and Limitations

The present research has several strengths. First, systematic reviews of the prevalence and predictors of sexual aggression in Chile and Turkey involving a multi-stage literature search were conducted to identify relevant records. As not only studies in English but also in the

respective country's language were considered, an extensive database was created, providing a comprehensive picture of the available evidence in both countries for the first time. Second, the present research project followed a gender-inclusive approach, considering both men and women in both victim and perpetrator roles. Third, the selection of the two countries was based on theoretical considerations important for the understanding of sexual aggression victimization and perpetration, rendering them theoretically interesting for a comparison in relation to each other as well as to evidence from Western countries.

At the same time, several limitations have to be acknowledged. First, the empirical studies were based on convenience samples of college students, which means that the generalizability of the results to young adults in general has to be established in future research using representative samples. Notwithstanding, although convenience samples may not be representative, they may allow valid conclusions (Straus, 2009). The second limitation affecting the empirical prediction of sexual aggression victimization and perpetration refers to the high drop-out between both data waves, which may be due to a lack of incentives given the financial limitations of this dissertation project. Studies with high retention rates have typically offered monetary compensation (e.g., Krahe & Berger, 2017b; Livingston et al., 2007; Zinzow & Thompson, 2015), enhancing re-participation. However, participants who participated in both waves and participants who dropped out after T1 did not differ in any of the model variables. Third, given the small number of participants who self-identified as homosexual or bisexual in the original data sets, neither reliable analyses of prevalence rates for these groups nor multi-group models with separate groups of heterosexual, homosexual, and bisexual individuals could be conducted. Hence, future research should address sexual minorities, particularly considering that studies have suggested that they may be a vulnerable group (see Rothman et al., 2011, for a review).

11.5. Conclusion

The present research provided a comprehensive picture of the prevalence and predictors of sexual aggression victimization and perpetration in Chile and Turkey for the first time. By reviewing a large number of studies which were selected for inclusion based on a predefined set of eligibility criteria, it was demonstrated that sexual aggression is a widespread issue in both countries, affecting both women and men. The empirical studies conducted in large samples of college students in Chile and Turkey revealed that a substantial proportion of men and women have experienced and/or engaged in sexual aggression, clearly calling for the implementation of policy measures and prevention strategies. Based on the findings of the

theory-based models for the prediction of sexual aggression victimization and perpetration, it has been shown that sexual scripts containing elements associated with an increased likelihood of sexual aggression, such as the use of alcohol in sexual situations, ambiguous communication of sexual intentions, and engagement in casual sex, along with corresponding sexual behaviors, play a key role in the understanding of sexual aggression victimization and perpetration. Furthermore, the role of religiosity, sexual self-esteem, and sexual assertiveness in predicting sexual aggression victimization and perpetration has been analyzed in-depth, not only largely confirming previous results but also allowing new insights into the underlying mechanisms of sexual aggression. Building on the findings of this research, recommendations for the development of intervention programs and policy measures are provided to tackle sexual aggression.

In addition, the findings of this program of research provide a starting point for future research on sexual aggression in Chile and Turkey, particularly for the investigation of risk and vulnerability factors, as there is no established research tradition in this field. At the same time, the findings contribute to and expand the international knowledge base on sexual aggression, which is, to date, mainly based on evidence from Western countries.

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Appendix

A: Sexual Aggression and Victimization Scale – Spanish Version

Female sexual victimization (opposite sex version)

1) En los últimos 12 meses, ¿algún hombre ha mantenido algún contacto sexual con usted (o ha intentado mantenerlo) **en contra de su voluntad** amenazándola con utilizar la fuerza o haciéndole daño (p.ej., le provocó dolor porque la sujetó o la amenazó)?

¿Cuántas veces en los últimos 12 meses su pareja actual o una pareja de una relación anterior lo hizo para...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No
¿Cuántas veces en los últimos 12 meses un amigo o conocido lo hizo para ...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No
¿Cuántas veces en los últimos 12 meses un hombre desconocido (p.ej., alguien a quien conoció en una discoteca) lo hizo para ...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No

2) En los últimos 12 meses, ¿algún hombre ha mantenido algún contacto sexual con usted (o ha intentado mantenerlo) **en contra de su voluntad** aprovechándose de que no pudiera oponer resistencia (p.ej., después de que hubiera consumido mucho alcohol o drogas)?

3) En los últimos 12 meses, ¿algún hombre ha mantenido algún contacto sexual con usted (o ha intentado mantenerlo) **en contra de su voluntad** presionándola verbalmente (p.ej., amenazándola con terminar la relación, cuestionando su competencia sexual...)?

Note: The questions regarding different coercive strategies are followed each time by the questions regarding the relationship constellation and sexual activities.

Female sexual aggression perpetration (opposite sex version)

1) En los últimos 12 meses, ¿ha hecho que algún hombre mantenga (o ha intentado que mantenga) algún contacto sexual con usted en contra de su voluntad amenazándolo con utilizar la fuerza o haciéndole daño (p.ej., le provocó dolor porque lo sujetó o lo amenazó)?

¿Cuántas veces en los últimos 12 meses a su pareja actual o una pareja anterior para...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No
¿Cuántas veces en los últimos 12 meses a un amigo o conocido para...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No
¿Cuántas veces en los últimos 12 meses a un hombre desconocido (p.ej., alguien a quien conoció en una discoteca) para...			
	nunca	1x	>1
...conseguir caricias sexuales (p.ej. besos/tocaciones)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un intento de coito?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...realizar un coito completo?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...mantener otras relaciones sexuales (p.ej. sexo oral)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿En esta ocasión se consumió por lo menos una vez alcohol?			
O Sí, yo	O Sí, el hombre	O Sí, ambos	O No

2) En los últimos 12 meses, ¿ha hecho que algún hombre mantenga (o ha intentado que mantenga) algún contacto sexual con usted en contra de su voluntad aprovechándose de que él no pudiera oponer resistencia (p.ej., después de que hubiera consumido mucho alcohol o drogas)?

3) En los últimos 12 meses, ¿ha hecho que algún hombre mantenga (o ha intentado que mantenga) algún contacto sexual con usted en contra de su voluntad presionándolo verbalmente (p.ej., amenazándolo con terminar la relación, cuestionando su competencia sexual...)?

Note: The questions regarding different coercive strategies are followed each time by the questions regarding the relationship constellation and sexual activities.

B: Sexual Aggression and Victimization Scale – Turkish Version*Female sexual victimization (opposite sex version)*

1. Son 12 ayda hiç, bir erkek sizi zor kullanmakla tehdit ederek ya da zarar vererek (örneğin, bedeninizi acıtarak, sıkıca tutarak ya da şantaj yaparak) isteğiniz dışında cinsel bir ilişkiye zorladı mı (ya da bunu yapmaya çalıştı mı)?

Şimdiki ya da eski erkek arkadaşınız son 12 ayda aşağıdakileri ne sıklıkla yaptı?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			
Bir arkadaş ya da tanıdık son 12 ayda aşağıdakileri ne sıklıkla yaptı?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			
Tanımadığınız bir erkek (örneğin, bar tanışıklığı) son 12 ayda aşağıdakileri ne sıklıkla yaptı?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			

2. Son 12 ayda hiç, bir erkek, sizin direnemeyecek durumda olmanızı kullanarak (örneğin, çok fazla alkol ya da uyuşturucu ile "hareket edemez" durumda olmanızı) isteğiniz dışında sizi cinsel bir ilişkiye zorladı mı (ya da bunu yapmaya çalıştı mı)?

3. Son 12 ayda hiç, bir erkek, sizi sözel olarak baskı altına alarak (örneğin, ilişkiyi bitirmekle tehdit ederek ya da başka kişilere frijit olduğunuzu anlatmakla şantaj yaparak) isteğiniz dışında cinsel bir ilişkiye zorladı mı (ya da bunu yapmaya çalıştı mı)?

Note: The questions regarding different coercive strategies are followed each time by the questions regarding the relationship constellation and sexual activities.

Female sexual aggression perpetration (opposite sex version)

1. Son 12 ayda hiç, bir erkeği zor kullanmakla tehdit ederek ya da yaralayarak (örneğin, bedenini acıtarak, sıkıca tutarak ya da şantaj yaparak) isteği dışında cinsel bir ilişkiye zorladınız mı (ya da bunu yapmaya çalıştınız mı)?

Şimdiki ya da eski erkek arkadaşınıza son 12 ayda aşağıdakileri ne sıklıkla yaptınız?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			
Bir arkadaş ya da tanıdığa son 12 ayda aşağıdakileri ne sıklıkla yaptınız?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			
Tanımadığımız bir erkeğe (örneğin, bar tanışıklığı) son 12 ayda aşağıdakileri ne sıklıkla yaptınız?			
	asla	1x	>1
... cinsel temaslar (öpmek/okşamak)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... cinsel ilişki denemesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... gerçekleşen cinsel ilişki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... diğer cinsel davranışlar (örneğin oral seks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bu arada bir tane de olsa alkol tüketildi mi?			
O evet, benim tarafımdan O evet, erkek tarafından O evet, ikimiz tarafından O hayır			

2. Son 12 ayda hiç, bir erkeğin, direnemeyecek durumda olmasını kullanarak (örneğin, çok fazla alkol ya da uyuşturucu ile "hareket edemez" durumda olmasını) onu isteği dışında cinsel bir ilişkiye zorladınız mı (ya da bunu yapmaya çalıştınız mı)?

3. Son 12 ayda hiç, bir erkeği sözel olarak baskı altına alarak (örneğin, ilişkiyi bitirmekle tehdit ederek ya da başka kişilere frijit olduğunu anlatmakla şantaj yaparak) isteği dışında cinsel ilişkiye zorladınız mı (ya da bunu yapmaya çalıştınız mı)?

Note: The questions regarding different coercive strategies are followed each time by the questions regarding the relationship constellation and sexual activities.

Eidesstattliche Erklärung

Hiermit versichere ich, die Dissertation *Prevalence and Predictors of Sexual Aggression Victimization and Perpetration in Chile and Turkey: A Cross-Cultural Analysis* selbstständig angefertigt zu haben. Die Arbeit wird zur Promotion im Fach Psychologie eingereicht und ist ohne unzulässige Hilfe Dritter verfasst worden. Bei der Abfassung wurden nur die in der Dissertation angegebenen Hilfsmittel benutzt sowie alle wörtlich oder inhaltlich übernommenen Stellen als solche gekennzeichnet. Die Dissertation ist in der gegenwärtigen oder einer anderen Fassung in keinem früheren Promotionsverfahren angenommen oder abgelehnt worden. Ich habe an keiner anderen Hochschule ein Promotionsverfahren eröffnet.

Potsdam, November 2017

Isabell Schuster