The role of moral neutralization of aggression and justification of violence against women in predicting physical teen dating violence perpetration and monitoring among adolescents in Switzerland

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Abstract
Although dating violence poses a serious threat to adolescents' health and well-being around the globe, little evidence is available for Europe in general and Switzerland in particular. Also, evidence on the role of cognitive predictors related to a more general justification of aggressive behavior and gender-based violence is lacking. Therefore, this two-wave longitudinal study conducted with Swiss adolescents (N = 646) examined moral neutralization of aggression and justification of violence against women as predictors of physical dating violence perpetration and monitoring. As expected, higher moral neutralization of aggression predicted a higher likelihood of perpetrating physical dating violence and monitoring among both female and male adolescents. Justification of violence against women was positively associated with physical dating violence perpetration and monitoring among both female and male adolescents. Justification of violence against women was positively associated with physical dating violence perpetration among males, but negatively among females. Also, a negative relationship was found with monitoring among females. The role of gender and implications of these findings for research, practice, and policy are discussed.

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1 INTRODUCTION

Having first dating relationships is considered as an important developmental milestone in adolescence (Adams et al., 2001). At the same time, a growing body of literature suggests that abusive relationships involving different forms of violence are common in this age group (see Rubio-Garay et al., 2017, for a review; see Wincentak et al., 2017, for a meta-analytic review) and pose a threat to adolescents’ development (see Taquette et al., 2019, for a review). To refer to the presence of violence in adolescent dating relationships, the term teen dating violence is generally used among researchers and practitioners. It is considered as a form of intimate partner violence and may include physical violence, sexual violence, psychological aggression, and stalking by a current or former partner during adolescence (Centers for Disease Control and Prevention, 2020). Among victims, it has been associated with numerous adverse outcomes, such as low self-esteem, substance abuse, depressive symptoms, suicide attempts, and low academic performance (Datta et al., 2020; Exner-Cortens et al., 2013; see Taquette et al., 2019, for a review). Given these serious outcomes of dating violence on teen’s health and well-being, it is necessary to better understand the factors that influence the probability of perpetrating violence toward a dating partner, which is in turn crucial for prevention efforts.

Past research has consistently documented that accepting attitudes toward dating violence are associated with perpetrating dating violence among adolescents (e.g., Foshee et al., 2016; Reyes et al., 2015; Temple et al., 2016). However, evidence on more global cognitive patterns that normalize and justify the use of violence, not only in dating, and especially how these global cognitive patterns relate to perpetrating dating violence among adolescents is scarce (see Vagi et al., 2013, for a review). Therefore, this study aimed at addressing this shortcoming and expanding the knowledge base regarding predictors of teen dating violence, which is primarily based on North American studies. In our study, we examined two cognitive variables, one directly related to the legitimation of gender-based violence — justification of violence against women — and one related to the justification of violence under some circumstances — moral neutralization of aggression —, as predictors of perpetrating physical dating violence and monitoring in a sample of adolescents in Switzerland, a country in which evidence on the prevalence and correlates of teen dating violence is largely missing.

1.1 Scope of perpetrating physical violence and monitoring in teen dating relationships

Past research, predominantly from North America, has indicated that violence toward a dating partner in adolescent relationships is a widespread phenomenon (e.g., Espelage et al., 2020; Reyes et al., 2016; Taylor & Mumford, 2016). Regarding physical dating violence perpetration, the meta-analytic review by Wincentak et al. (2017), comprising 35 studies on female perpetration and 38 studies on male perpetration, has shown that 25% of female and 13% of male adolescents aged 13 to 18 years reported using this kind of violence toward
their dating partner, with a statistically significant gender difference. However, a great heterogeneity in prevalence rates was shown, particularly due to demographical and methodological differences (Wincentak et al., 2017). Across the body of more recent studies, the direction of gender differences was similar to the meta-analytic review by Wincentak et al. (2017), showing higher rates among female adolescents (e.g., Ruel et al., 2020; Théorêt et al., 2020). However, some studies revealed higher rates among male adolescents (e.g., Karsberg et al., 2018).

Monitoring and controlling behaviors are often included in rates of psychological aggression; however, some studies present separate results. For example, Cheng et al. (2020) have found that the prevalence of different controlling behaviors (e.g., restricting the dating partner’s actions) ranged between 8.7% and 12.2% among female adolescents and between 9.2% and 12.6% among male adolescents in a sample of Chinese teens with dating experience. The study by Zweig and colleagues (2013) found a similar prevalence rate for monitoring among male adolescents (11.0%) but a higher one among female adolescents (18.3%) in a United States (U.S.) sample of teens in a relationship. Even higher rates were found in another U.S. sample, with 26.0% of female adolescents and 37.1% of male adolescents using controlling behaviors toward their current partner (Vivolo-Kantor et al., 2016). Overall, no consistent picture of gender differences in prevalence rates emerged.

With respect to data on teen dating violence perpetration in Switzerland, evidence is strongly limited. In the study by Barrense-Dias et al. (2017) which used a sample of 2,627 participants aged 15–22 years, pushing a dating partner was reported by 9.1% of the females and by 5.5% of the males. Lower prevalence rates were found for hitting a dating partner, with 6.8% of the females and 1.9% of the males reporting it. Using a small sample with a dating history (N = 86, 14–22 years) from French-speaking Switzerland, de Puy et al. (2014) found a prevalence rate of 41.9% for physical dating violence perpetration (no separate rates for females and males were reported). The comprehensive study by Ribeaud (2015) which was conducted in the Canton of Zurich included students from the ninth and 11th grade who reported that they had a dating partner at the time of the survey or in the previous 12 months (N = 1,456). In the ninth grade, 19.3% of female and 12.1% of male adolescents reported perpetrating physical violence toward a dating partner in the last 12 months. Higher prevalence rates were found in the 11th grade, with 27.1% of females and 20.7% of males reporting it. Ribeaud (2015) also included a measure of monitoring the dating partner in the last 12 months, revealing a prevalence of 68.8% among females and 55.4% among males in the 9th grade. Similar rates were found for the 11th grade, with 71.8% of females and 57.4% of males reporting monitoring. A parallel survey to Ribeaud’s (2015) study was conducted in the canton of Vaud, also using a large sample of adolescents who reported that they had a dating partner at the time of the survey or in the previous 12 months (N = 989; Lucia et al., 2015). Perpetration of physical violence in the last 12 months was reported by 15.3% of the female and by 6.0% of the male adolescents. Higher rates were found for monitoring a dating partner in the last 12 months, with 54.7% of female and 31.4% of male adolescents reporting it. Taken together, higher prevalence rates of dating violence perpetration were found among female adolescents compared to male adolescents in Switzerland.

1.2 Justification of violence against women and moral neutralization of aggression as predictors of perpetrating teen dating violence

Up to date, studies that examined cognitive predictors of teen dating violence primarily focused on the role of accepting attitudes toward dating violence. These studies have
consistently shown a positive association with physical dating violence perpetration, both cross-sectionally (de Puy et al., 2014; Smith-Darden et al., 2017; Temple et al., 2013; Ybarra & Langhinrichsen-Rohling, 2019) and longitudinally (e.g., Reyes et al., 2015; Williams et al., 2008). Despite a broad body of studies examining the association between accepting attitudes toward and perpetration of dating violence, evidence on the legitimation of gender-based violence and more general cognitive patterns of accepting or normalizing the use of violence is lacking (see Vagi et al., 2013, for a review). The review by McCarthy et al. (2018) examined, among others, the association between individual and peer acceptance of violence against women and perpetration of intimate partner violence among males. Including both adolescent and adult samples, an inconclusive picture of past evidence was found. About half of the included studies in the review (5 out of 9) revealed at least one positive link between the acceptance of violence against women and perpetration of intimate partner violence. However, the other studies (4 out of 9) did not find any association between these constructs. Mixed evidence was also found for the three studies that used adolescent samples. Evidence is even more limited for girls, although studies have shown that girls justify violence against women as well (Schuster et al., 2020). Using a sample of female and male ninth grade students from the U.S., Ward et al. (2006) have found that attitudes accepting violence against women were positively linked to physical dating violence perpetration.

Ribeaud and Eisner (2010, 2015) introduced the concept of moral neutralization of aggression, which refers to a range of cognitive processes that help a generally rule-abiding individual to minimize cognitive dissonance, threats to self-concept, and experiences of moral self-sanction when he or she commits acts of violence against others. It comprises the components of moral disengagement (Bandura et al., 1996), neutralization techniques (Sykes & Matza, 1957), and secondary self-serving cognitive distortions (Barriga & Gibbs, 1996). There is some preliminary evidence suggesting that moral neutralization of aggression is linked to dating violence in adolescent relationships. For example, using a large sample of Spanish adolescents (N = 2,577), Cuadrado-Gordillo et al. (2020) found a positive association between moral disengagement and dating violence victimization. In a small sample of 16- to 26-year-old Spaniards (N = 72), a positive correlation was found between moral disengagement and dating violence perpetration among males but not among females (Rubio-Garay et al., 2019). However, no significant associations were found between these two constructs when the sample was separated into teens (16–18 years) and adults (19–25 years), maybe due to the small sample size. Broadening the scope beyond teen dating violence, past research with adolescents has found positive associations between moral neutralization of aggression and, for example, aggressive behavior in Switzerland (Ribeaud & Eisner, 2015), attitudes accepting wife beating in Jordan (Schuster et al., 2020), and bullying perpetration also in Switzerland (Zych et al., 2020). Taken together, these findings suggest that attitudes justifying violence against women and moral neutralization of aggression are risk factors of perpetrating various types of interpersonal violence, but the effects of these risk factors still need to be clearly established for perpetration of different forms of teen dating violence.

2 | THE CURRENT STUDY

The available evidence on teen dating violence is primarily derived from studies conducted in North America, whereas little is known about the scope and predictors of dating violence perpetration among adolescents from Europe in general and Switzerland in particular. Therefore, our first aim was to investigate the 12-month prevalence of perpetrating physical dating violence and monitoring in a sample of Swiss adolescents. Based on past
national and international research (Barrense-Dias et al., 2017; Ribeaud, 2015; Wincentak et al., 2017), we expected higher prevalence rates of perpetrating physical dating violence and monitoring among female than male adolescents (Hypothesis 1).

Another limitation is the lack of research on more general cognitive patterns of legitimizing gender-based violence and justifying violence under some circumstances (not strictly related to dating). Also, the few previous studies that examined attitudes toward violence against women and components of moral neutralization of aggression as risk factors of dating violence revealed partly inconclusive results. In addition, to our knowledge, no national or international study has investigated the associations between attitudes toward gender-based violence, more global cognitive patterns justifying interpersonal violence, and dating violence perpetration simultaneously in a longitudinal design. Thus, our second aim was to examine justification of violence against women and moral neutralization of aggression as predictors of physical dating violence perpetration and monitoring behavior measured two years later, while controlling for the stability of both constructs. We expected that more justifying attitudes toward violence against women and higher moral neutralization of aggression would increase the likelihood of perpetrating physical violence and monitoring toward a dating partner (Hypothesis 2).

Several studies have revealed gender differences in dating violence perpetration (see Wincentak et al., 2017, for a meta-analytic review), attitudes toward violence against women (e.g., Debowska et al., 2017), and moral neutralization of aggression (e.g., Schuster et al., 2020). Due to the limited and inconclusive evidence on the role of gender, we also examined whether or not the proposed pathways would hold for female and male adolescents.

3 | METHOD

3.1 | Participants

In the current study, data were used from the Zurich Project on the Social Development from Childhood to Adulthood (z-proso). In 2004, a total of N = 2,520 first-graders of 56 selected schools in Zurich were invited, of whom N = 1,675 children (48% girls) participated in the ongoing study. A stratified random sampling was applied to define the target sample with schools as the randomization units and stratification by school size and socioeconomic background. In the present study, we used data from waves 6 (completed in 2013; N = 1,446; 86.3% of the initial sample) and 7 (completed in 2015; N = 1,305; 77.9% of the initial sample). Given that our focus was on dating violence, only adolescents who reported that they had a dating partner in the previous 12 months at wave 7 (49.7%) were included. Hence, our final sample consisted of N = 646 adolescents (57.1% girls). At wave 7, 29.4% of the participants were less than 3 months in a relationship, 22.8% had a relationship of 4–6 months, 17.3% had a relationship less than a year, 21.7% had a relationship between 1 and 2 years, 8.5% had a relationship between 2 and 5 years, and 0.5% were in a relationship that lasted more than 5 years. Having an opposite-sex partner was reported by 96.7% of the sample. A same-sex partner was indicated by 3.3% of the male and female adolescents, respectively. At wave 6, the mean age was 15.5 years (SD = 0.37). At wave 7, the mean age was 17.5 years (SD = 0.38). No gender differences in age were found. Age at first sex, measured at wave 7, was 15.3 years (SD = 1.57), with males being younger at first sex (M = 15.0, SD = 1.80) than females (M = 15.6, SD = 1.27), t (469) = −4.06, p < .001.

At waves 6 and 7, the adolescents completed the paper-and-pencil survey during their leisure time in a classroom setting which took approximately 60–90 minutes. In return for
participation, they received a financial compensation of approximately 50 (wave 6) and 60 USD (wave 7).

### 3.2 Measures

#### 3.2.1 Dating violence perpetration

An adapted version of the Safe Dates Dating Abuse Scale by Foshee (1996) was only used at wave 7 to assess both physical dating violence perpetration and monitoring—a subscale of psychological abuse. Both scales referred to the last 12 months and participants were asked to refer to their current or most recent dating relationship. We used six items to assess physical dating violence perpetration (e.g., pushed, grabbed or shoved your partner), which also correspond with items of the Revised Conflict Tactics Scales (CTS-2; Straus et al., 1996), and four items to assess monitoring (e.g., limit contact of your partner). The response format ranged from 1 (never) to 4 (10 or more times). Cronbach's alpha was .60 for physical dating violence perpetration and .76 for monitoring. To examine overall 12-month prevalence rates of perpetrating physical dating violence and monitoring, we created dichotomous variables, assigning "0" to those who responded “never” to all items (non-perpetrators) and ‘1’ to those who endorsed at least one perpetration item (perpetrators). For descriptive analyses and the path model, mean scores were computed.

#### 3.2.2 Moral neutralization of aggression

To assess the extent to which participants justify aggressive behavior at waves 6 and 7, a measure developed by Ribeaud and Eisner (2010) was used. The original scale contained 16 items. However, to better reflect the heterogeneity of neutralization mechanisms, two items were added to the original scale, resulting in an 18-item-scale (Ribeaud, 2012). It covers the domains of (1) cognitive restructuring (example item: “Sometimes it's okay to bully other people”), (2) distorting consequences (example item: “Many problems can be solved with violence”), (3) blaming the victim (example item: “Some kids get bullied because they deserve it”), (4) assuming the worst (example item: “You should hurt people first, before they hurt you”), and (5) minimizing agency (example item: “It is okay to fight back when you are being attacked”). Despite the different domains, research suggests a one-factor solution (Ribeaud, 2012; Ribeaud & Eisner, 2010). Answers were given on a four-point scale that ranged from 1 (strongly disagree) to 4 (strongly agree). Cronbach’s alpha was .90 at wave 6 and .91 at wave 7. Mean scores were computed for each participant.

#### 3.2.3 Justification of violence against women

To measure justifying attitudes toward violence against women, a three-item scale developed by the z-proso research team based on Saunders’ (1987) Inventory of Beliefs about Wife Beating was used at waves 6 and 7. The three items are: (1) “A man is allowed to beat his wife/female partner if she doesn’t do what he wants”, (2) “Women have only themselves to blame when they are beaten by their husband/male partner”, and (3) “If a woman insults her husband/male partner, he is allowed to beat her”. A four-point response scale was provided, ranging from 1 (fully untrue) to 4 (fully true). Cronbach's alphas were .65 and .64 at waves 6 and 7, respectively. Mean scores were calculated for each data wave.
The proposed path model was tested with Mplus (version 8.5; Muthén & Muthén, 2020). The temporal stability of moral neutralization of aggression and attitudes toward violence against women was controlled by including scores of waves 6 and 7. Perpetration of physical dating violence and monitoring were only measured at wave 7. These two constructs were controlled for age. To examine a potential moderation by gender, a multigroup model by gender was tested. In the first model, paths were constrained to be equal for both gender groups (constrained model). In the second one, paths were allowed to vary between both gender groups (unconstrained model). Both models were compared using the Satorra–Bentler scaled chi-square difference test.

The parameters of the models were estimated using maximum likelihood estimation with robust standard errors (MLR estimator) to account for the nonnormality distributions of the data. Statistical significance of the effects was assessed by 95% and 99% bias-corrected bootstrapped confidence intervals (CIs) based on 10,000 replications. To test the significance by bootstrapping, the maximum likelihood (ML) estimator was used because the bootstrap procedure is not available for models with MLR estimation.

Assuming a missing at random (MAR) mechanism, missing data were handled by the Full Information Maximum Likelihood (FIML) approach. FIML presents a state-of-the-art approach and is considered superior to traditional approaches for dealing with missing data, such as pairwise or listwise deletion which may result in biased parameter estimates. In contrast to these traditional approaches, parameters are estimated by using information from observed variables, resulting in unbiased parameter estimates (Enders, 2010). To compare path coefficients between female and male adolescents in a post hoc analysis, we employed the MODEL CONSTRAINT option in Mplus. To account for multiple comparisons, the 99% confidence interval was used to examine the differences.

4 RESULTS

4.1 Prevalence of dating violence perpetration

Overall, 19.3% of female adolescents and 14.1% of male adolescents reported perpetrating physical violence toward their dating partner in the last 12 months. No significant gender difference emerged, χ²(1, N = 644) = 2.97, p = .085. Higher prevalence rates were found for monitoring, with 76.6% of female adolescents and 70.3% of male adolescents reporting it. Again, no significant gender difference was found, χ²(1, N = 644) = 3.29, p = .070. Hence, Hypothesis 1 which predicted significantly higher prevalence rates of perpetrating physical dating violence and monitoring among female than male adolescents was not supported.

4.2 Gender differences in moral neutralization of aggression and justification of violence against women

A MANOVA was employed to test gender differences in moral neutralization of aggression and justification of violence against women at waves 6 and 7. The multivariate test was significant, F(4, 632) = 37.83, p < .001, ηp² = .19, λ = .81. As shown in Table 1, scores of moral neutralization of aggression and justification of violence against women were significantly higher among male than female adolescents at both data waves.
TABLE 1  Means and SDs of study variables

<table>
<thead>
<tr>
<th>Construct</th>
<th>Range</th>
<th>M_total (SD)</th>
<th>M_females (SD)</th>
<th>M_Males (SD)</th>
<th>F</th>
<th>ηp²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral neutralization of aggression wave 6</td>
<td>1–4</td>
<td>2.09 (0.53)</td>
<td>1.94 (0.47)</td>
<td>2.30 (0.54)</td>
<td>80.21 ***</td>
<td>.11</td>
</tr>
<tr>
<td>Moral neutralization of aggression wave 7</td>
<td>1–4</td>
<td>1.95 (0.54)</td>
<td>1.75 (0.45)</td>
<td>2.22 (0.53)</td>
<td>145.79 ***</td>
<td>.19</td>
</tr>
<tr>
<td>Justification of violence against women wave 6</td>
<td>1–4</td>
<td>1.13 (0.33)</td>
<td>1.09 (0.26)</td>
<td>1.20 (0.40)</td>
<td>17.24 ***</td>
<td>.03</td>
</tr>
<tr>
<td>Justification of violence against women wave 7</td>
<td>1–4</td>
<td>1.14 (0.34)</td>
<td>1.09 (0.25)</td>
<td>1.21 (0.42)</td>
<td>17.44 ***</td>
<td>.03</td>
</tr>
</tbody>
</table>

***p < .001.

FIGURE 1  Path model with standardized coefficients for male adolescents (before slash) and female adolescents (after slash). Physical dating violence and monitoring were controlled for age. The shaded coefficients differed significantly between female and male adolescents (99% CI). T6 = wave 6; T7 = wave 7.

Model fit: χ² (8, N = 646) = 10.78, p = .215; CFI = .99; RMSEA = .03, 90% CI [.00, .08]; SRMR = .02. *p < .05 (95% CI), **p < .01 (99% CI)

4.3 Prediction of teen dating violence perpetration

First, we examined whether gender plays a moderating role in the proposed path model. The constrained model showed a good fit with data, χ² (25, N = 646) = 45.71, p = .007; CFI = .95; RMSEA = 0.05, 90% CI = [.03, .07]; SRMR = .08. The unconstrained model also had a good fit, χ² (8, N = 646) = 10.78, p = .215; CFI = .99; RMSEA = .03, 90% CI [.00, .08]; SRMR = .02. The Satorra-Bentler scaled chi-square difference test showed, however, that the model fit of the unconstrained model was significantly better, χ² (17) = 33.48, p = .010. Therefore, the unconstrained model which is shown in Figure 1 was adopted as the final model.

As expected in Hypothesis 2, higher moral neutralization of aggression at wave 6 predicted a higher probability of perpetrating physical dating violence as well as monitoring at wave 7 among both female and male adolescents. Furthermore, males’ higher justification of violence against women predicted a higher probability of physical dating violence...
perpetration. Among females, against our expectation in Hypothesis 2, a negative relationship was found, with more justifying attitudes toward violence against women predicting a lower probability of physical dating violence perpetration. With respect to monitoring, for males, a positive but only marginally significant relationship was found between justifying attitudes toward violence against women and monitoring. For females, again, more justifying attitudes toward violence against women predicted a lower probability of monitoring. Hence, Hypothesis 2 was only partially supported.

5 | DISCUSSION

The purpose of this study was to examine the prevalence and predictors of physical dating violence perpetration and monitoring in a sample of adolescents in Switzerland, a country with very limited evidence on teen dating violence up to date. Specifically, two cognitive variables, one related to the legitimation of gender-based violence —justification of violence against women— and another one referring to a more general justification of aggressive actions as a coping strategy —moral neutralization of aggression—, were assessed in two data waves and analyzed as potential predictors of perpetrating physical dating violence and monitoring in the last 12 months. Based on past evidence, primarily from North American studies, we expected that both predictors would be positively associated with both forms of teen dating violence. A special focus of this study was placed on exploring the role of gender, addressing the inconclusive evidence of the past research regarding this issue.

In terms of the prevalence rates of teen dating violence, 19.3% of females and 14.1% of males reported perpetrating physical violence toward their dating partner in the last 12 months, with the gender difference being not significant. Thus, our first hypothesis was not supported. Compared to the international evidence of the meta-analytic review by Wincentak and colleagues (2017), the prevalence rates of perpetrating physical dating violence in the present study were slightly lower for females (25% vs. 19.3% in our study), but very similar for males (13% vs. 14.1% in our study). While the gender difference in the meta-analytic review by Wincentak et al. (2017) was significant, showing higher rates of physical dating violence perpetration reported by female adolescents, the present study found no significant gender difference. Descriptively, the numbers were also higher among female adolescents compared to male adolescents. However, other studies found higher rates among male adolescents compared to female adolescents (e.g., Karsberg et al., 2018) which corresponds with the notion about the great heterogeneity in prevalence rates, mostly because of the used methodology (Wincentak et al., 2017). Looking at the evidence from Switzerland, the prevalence rates of perpetrating physical violence in the present study were almost identical with those presented by Ribeaud (2015), especially when ninth-grade students and the reference time of 12 months were considered (19.3% and 12.1%, for female and male adolescents respectively vs. 19.3% and 14.1% in our study). However, in the study by Ribeaud (2015), the gender difference emerged as significant, probably due to the larger sample size in Ribeaud’s study.

The pattern of results showing higher prevalence rates of perpetrating physical violence among female than male adolescents is consistent with the pattern of self-reports on physical intimate partner violence by adult women compared to adult men based on the widely used Revised Conflict Tactics Scales (CTS-2; Straus et al., 1996). In the present study, an adapted version of the Safe Dates Dating Abuse Scale by Foshee (1996) was employed, which in turn is based on the CTS-2. One key explanation for this gender difference is the fact that the CTS-2 counts the acts of physical violence without considering the context of
whether the act was a response to a provocation (reactive aggression) or a self-initiated act (proactive aggression) toward a partner (see Krahé, 2021, for an overview). This issue may also arise in the measurement of physically violent acts among female and male adolescents.

Higher rates of physical violence perpetration among females than males are, however, contrary to social expectations and evidence from official crime statistics (see Krahé, 2021; Tomaszewska & Schuster, 2019, for overviews). For example, official Swiss crime statistics demonstrated the unequal gender distribution, with the proportion of 76.1% of women being affected by intimate partner violence in 2019 (Schweizerische Eidgenossenschaft, 2020). The higher proportion of women being injured by their male partner, which was demonstrated in the meta-analytic review by Archer (2000), may also explain that women are more likely to officially report intimate partner violence. The recent review by Bundock et al. (2020) also indicated that female adolescents are more likely to seek help than male adolescents. Moreover, different types of violence in intimate relationships can be distinguished. Kelly and Johnson (2008) proposed four types: (1) coercive controlling violence, (2) violent resistance, (3) situational couple violence, and (4) separation-instigated violence. Coercive controlling violence comprises emotionally abusive intimidation as well as physical violence and is more often perpetrated by men than by women. Violent resistance refers to the self-defense to stop the partner’s violence and is more often shown by women than by men. Situational couple violence arises ad hoc, for example due to conflicts or arguments, but does not present a stable pattern of intimate partner violence. This type is equally used by both gender groups. Separation-instigated violence which is also equally shown by women and men refers to violence that may occur when the couple separates and often, no violence was present in the relationship. These types, however, refer to violence in adult relationships and much less is known about the dynamics of violent situations in adolescent relationships. Hence, to better understand the role of gender in perpetrating (physical) teen dating violence, there is a need to examine more closely the dynamics, the context, and the meaning of violence.

With respect to perpetrating monitoring in the present study, 76.6% of female adolescents and 70.3% of male adolescents who were in a dating relationship in the last year reported monitoring of a dating partner in the last 12 months, which again revealed a non-significant gender difference against our expectation in Hypothesis 1. Again, this picture is consistent with the national data that used the same methodology and revealed prevalence rates between 68.8% and 71.8% among female adolescents and between 55.4% and 57.4% among male adolescents in the ninth and 11th grade in Switzerland (Ribeaud, 2015). However, these rates are much higher compared to international studies, for example, from the U.S. (Vivolo-Kantor et al., 2016; Zweig et al., 2013) or China (Cheng et al., 2020). The present data suggest that occasional monitoring of a dating partner is a very common behavior in the present sample of Swiss adolescents but future research is needed to replicate these results and, if applicable, to investigate the methodological and cultural background of the existing differences between the European, North American, and East Asian studies.

Regarding our proposed path model, we found, as expected in Hypothesis 2, that moral neutralization of aggression at wave 6 was positively linked to perpetrating physical dating violence toward and monitoring of a dating partner two years later. Although not explicitly hypothesized, we found that these paths hold for both gender groups. Specifically, Swiss male and female adolescents who cognitively neutralized aggressive actions to a greater extent, used more physical violence, such as pushing or shoving, and more monitoring behavior, such as restricting partners’ contacts with his/her friends. To our knowledge, this is the first (longitudinal) study documenting the role of moral neutralization of
aggression with respect to perpetration of physical dating violence and monitoring among (Swiss) adolescents. Past research demonstrated similar patterns of associations, however, with related constructs, such as positive associations between moral disengagement and acceptance of violence (Cuadrado-Gordillo et al., 2020), moral neutralization of aggression and aggressive behavior (combined as a score of physical, proactive, reactive, and indirect aggression) (Ribeaud & Eisner, 2015), and moral neutralization of aggression and perpetration of bullying (Zych et al., 2020).

As expected in Hypothesis 2, justifying attitudes toward violence against women at wave 6 predicted perpetrating physical dating violence 2 years later, however, only among male adolescents. This means that males who accepted violence against women to a greater extent, reported more physical violence toward their dating partner. This finding corresponds with the evidence by McCarthy and colleagues (2018) who have shown that male intimate partner violence perpetration was positively linked to the acceptance of violence against women in 9 out of 16 reviewed scales. In terms of the justification of violence against women as predictor of perpetrating monitoring against a dating partner, no significant link emerged for male adolescents. As the concept of justifying violence against women referred solely to accepting physical violence, it may be that this predictor was not specific enough to predict monitoring, a psychological form of violence, which is consistent with the principle of compatibility that requires the same level of specificity while measuring attitudes and behavior (Ajzen & Fishbein, 1977). To test the notion about the specificity of predictors, future research should also consider the justification of psychological violence against women.

For female adolescents, a negative association between justification of violence against women and physical dating violence perpetration emerged, showing that female adolescents who accepted violence against women to a greater extent at wave 6 were physically less violent toward their dating partner at wave 7. This result was unexpected because a similar mechanism as for male adolescents could be assumed based on past evidence. Furthermore, also a negative path was found for female adolescents between justification of violence against women and monitoring. Despite the unexpected results, there are several potential explanations that should be considered to better understand these findings.

First, it may be that those females who justify violence against women, do not use physical violence against their partner because it does not fit to their (stereotypical) picture of females. According to the social role theory, there are different stereotypical perceptions of what (aggressive) behaviors are adequate for both gender groups (Eagly et al., 2000). In line with that is the gender-specific norm that physical violence is less accepted for females than for males (see Krahé, 2021, for an overview). Hence, female adolescents who accept and justify violence toward women to a greater extent may also have more stereotypical expectations that females should be docile, submissive, and not be aggressive and males are allowed to be dominant and aggressive. For example, Singh and Aggarwal (2020) have shown that more violent attitudes toward women were linked to less egalitarian attitudes toward women, a proxy for more traditional gender role stereotypes.

Second, it may also be that female adolescents who have justifying attitudes toward violence against women do not behave like male adolescents who accept it because female adolescents might fear that their dating partner fights back. Hence, these females might feel more vulnerable than their partners, which may result in behavior inhibition. Feeling threatened by a dating partner may also explain the negative link found between justification of violence against women and perpetrating monitoring behavior among female adolescents in the present study. Despite the evidence that perpetration of psychological violence is more acceptable than perpetration of physical violence among females and the
evidence that females do perpetrate relational/indirect aggression more than males (see Krahé, 2021, for an overview), it may be that females who believe that women can be beaten by men, may limit themselves to exert behaviors (also to control the partner) that could provoke any violent actions against themselves. Future research is, however, necessary (1) to replicate this gendered pattern and (2) to empirically test these potential explanations. Also, a person-centered approach may be helpful to identify whether there are different subgroups of individuals (clusters) that differ in their cognitive representations of acceptance of (dating) violence.

5.1 Strengths and limitations

This study has several strengths. This was the first study examining teen dating violence within a longitudinal framework in Switzerland that allowed us to determine to what extent moral neutralization of aggression and justification of violence against women predict perpetration of teen dating violence. Furthermore, compared to the sample sizes used in previous cross-sectional studies (e.g., de Puy et al., 2014), our study followed a stratified random sampling approach and used a large adolescent sample from different schools in Zurich, Switzerland, who have had a dating partner in the previous 12 months at wave 7. A final major strength of the study was that we examined the perpetration rates among both female and male adolescents.

However, this study also presents a number of limitations that need to be acknowledged. First, we relied only on physical violence and a limited area of psychological violence (monitoring behavior). But dating violence consists of a wider range of behaviors including psychological aggression, sexual violence, and stalking (Centers for Disease Control and Prevention, 2020). It would therefore be beneficial if future research covers a wider range of forms of dating violence to better understand the extent of violence that takes place in teen dating relationships. Also, perpetration of teen dating violence was first measured at wave 7. Therefore, we could not control for its stability from wave 6 to wave 7. To measure physical teen dating violence perpetration and monitoring, we used an adapted version of the Safe Dates Dating Abuse Scale by Foshee (1996). This scale, however, does not assess the context, meaning, or motivation of the violent acts. Hence, we were not able to differentiate the severity of the violence, or distinguish between violence that is inflicted by one’s partner (reactive violence) or proactively self-initiated (proactive violence). A final limitation was the low internal consistency of the justification of violence against women scale. At both waves, Cronbach's alphas were only acceptable (.65 and .64). This is possibly due to the low number of items used to measure this construct (three items) which were not psychometrically validated. Another issue was the rather low endorsement across the items measuring the justification of violence against women, suggesting that the majority of adolescents either did not hold these beliefs or knew that it is socially undesirable to endorse these beliefs. As such, future research should include a psychometrically validated scale that is more sensitive to the current social context of the adolescent populations to replicate the present study’s findings.

To assess the generalizability of our findings among Swiss adolescents, replication studies should be done using samples from different adolescent age groups, as the strength of endorsement of beliefs about violence may change as adolescents age (Capaldi & Langhinrichsen-Rohling, 2012). Moreover, longitudinal designs with more than two data waves would enable more refined models of within-individual change, and further advance our understanding of the longer-term dynamics that link moral neutralization, acceptance of violence against women, and teen dating violence.
5.2 Implications for research, practice, and policy

Our findings on the prevalence of teen dating violence perpetration highlight the urgent need for evidence-based prevention programs to reduce teen dating violence in Switzerland, especially considering that youth involved in teen dating violence is likely to be involved in abusive relationships as adults (Gómez, 2011; Jouriles et al., 2017; Smith & Donnelly, 2001). In particular, prevention and intervention programs that begin early are crucial for addressing this issue (see also Lee & Wong, 2020).

Regarding the gendered pattern of the prevalence of dating violence perpetration, with higher prevalence rates among female than male adolescents, at least at a descriptive level, more research is needed to better understand whether this presents a methodological artefact. A better contextualization as well as gathering reports of both dating partners may advance the assessment of teen dating violence perpetration.

With respect to cognitive predictors of teen dating violence perpetration, we found that beliefs about gender-based violence (i.e., justification of violence against women) as well as more general cognitive patterns of accepting or normalizing the use of violence (i.e., moral neutralization of aggression) predicted dating violence perpetration. Regarding the content of prevention strategies, several well-established programs, such as Safe Dates (Foshee et al., 1998) and Dating Matters (Tharp, 2012), address dating violence norms, gender stereotyping, and acceptance of traditional gender roles. However, our research suggests to address and challenge more general cognitions related to violence as well, rather than exclusively focusing on dating violence and related attitudes and norms. Hence, future prevention programs should consider including activities and contents that address broader cognitive patterns of accepting or normalizing the use of violence.

Regarding the implementation of evidence-based prevention programs, it should be considered that most of them were developed within the U.S. (e.g., Safe Dates [Foshee et al., 1998, 2004], Dating Matters [Niolon et al., 2019; Tharp, 2012], and Shifting Boundaries Program [Taylor et al., 2013, 2017]). Hence, it is unclear whether these programs could be easily and effectively adapted to the Swiss or European sociocultural context (cf. Hamby et al., 2012). Nevertheless, the U.S. programs can still be transferred into the Swiss or European context, and their effectiveness can be enhanced if attention is paid to the specific content and whether it is tailored to the local cultural context and target group.

To achieve long-term sustainable behavior change, prevention efforts should be complemented by educational policies that focus on addressing environmental factors. For instance, policymakers could enact legislations that specifically address teen dating violence in school contexts and provide guidelines and funding support for school personnel to implement the required programs. Furthermore, efforts to foster a violence-free school climate should include issues of teen dating violence, and prevention efforts should be directed not just at students but also toward families, staff, teachers, and administrators (Smith & Donnelly, 2001). These policy changes call for the need to provide empirical evidence for the effectiveness of the prevention programs. Unfortunately, to date, very limited number of studies have done this in the Swiss and European context. Therefore, we encourage researchers to continue to implement and evaluate prevention programs.

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