

## REVIEW

# Explaining ADVA and TAADVA: Risk factors and correlates

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**Abstract:** While research regarding the correlates and risk factors of Adolescent Dating Violence and Abuse (ADVA) has been established, less research has explored what factors might be associated with adolescent involvement in Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA). This paper therefore reviews the literature to have reported on risk factors for ADVA and correlates of TAADVA in order to assess the current state of this knowledge base and look for similarities and differences between factors identified. A range of factors were identified that were important in ADVA and TAADVA victimisation and/or instigation and these are considered in terms of the level of theory that they can support in terms of their ability to explain ADVA and TAADVA, in addition to where they sit within an ecological framework. Due to research on TAADVA being relatively recent in comparison to ADVA, only correlates were identified in studies investigating associated factors whereas longitudinal risk factors have been well established with regard to ADVA that has been researched more extensively. Future research should attempt to standardise measures of risk factors and correlates in order to make comparisons more accurate and move research forward by developing a comprehensive theory of ADVA and TAADVA.

**Keywords:** Adolescent, Dating Violence and Abuse, Technology-Assisted

## 1 Introduction

The prevalence of Adolescent Dating Violence and Abuse (ADVA) in general population studies has been well established within numerous studies and is reported to range from between 10-30% for physical violence victimisation and 5-30% for physical violence instigation, 35-55% for psychological/emotional violence victimization and 20-70% for psychological/emotional violence instigation, and 5-30% for sexual violence victimisation and 5-20% for sexual violence instigation.<sup>[1]</sup> Additionally, numerous studies have explored risk factors associated with adolescent involvement in ADVA that have been categorised in a review of such research as including four dynamic risk areas including peer influences, substance use, psychological adjustment and personal competencies (PAPC), and attitudes towards dating violence.<sup>[2]</sup> Less research however, has explored what factors might be predict involvement in Technology-Assisted Adolescent Dating Violence and Abuse (TAADVA), although some studies have begun to

investigate the prevalence and correlates of TAADVA. In a review of TAADVA prevalence studies, Stonard et al. (2014) identified that the prevalence of TAADVA victimisation ranged from 12-56% and for instigation from 12-54%, highlighting that this form of abuse is as evident in adolescent romantic relationships as offline ADVA.<sup>[1]</sup> This paper seeks to synthesise the research that has examined factors associated with involvement in TAADVA in order to explore similarities and differences to those risk factors identified for ADVA, and to attempt to provide a knowledge base in which to build and develop a comprehensive theory of ADVA and TAADVA.

Definitions of ADVA now acknowledge that such abuse not only includes physical, psychological/emotional and sexual violence in the offline context but also includes psychological/emotional abuse and sexual pressure that occurs through the use of electronic communication technologies (ECT) such as mobiles and online social networking tools. The Centers for Disease Control and Prevention (2012: 1) for example, defines “Teen dating violence” as “the physical, sexual, or psychological/emotional violence between two people within a close or dating relationship, as well as stalking. It can occur in person or electronically such as repeated texting or posting sexual pictures of a partner online and may occur between a current or former dating partner”.<sup>[3]</sup> The nature of abusive and coercive/controlling behaviour can therefore be

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experienced in both the online and offline contexts, although this may be experienced exclusively in one or the other.<sup>[4]</sup> It is therefore important to understand whether the factors found to be associated with ADVA are similar to those identified for TAADVA or whether TAADVA has any unique characteristics.

This paper critically examines the theoretical and empirical research that has attempted to explain ADVA and TAADVA experiences, and factors thought to be important in the pathways, types, and development of ADVA and TAADVA. Specifically this chapter considers the trajectories, typologies, and motives for ADVA, including the role of gender, and how this might apply to TAADVA. Following this, a review of longitudinal studies that have identified risk and protective factors for ADVA and cross-sectional studies that have identified correlates of TAADVA is conducted. The findings are examined in the context of relevant theoretical perspectives.

## 1.1 Methodology for review

Bibliographic databases (*e.g.* Academic Search Complete, PsychINFO, and Science Direct) in addition to Google Scholar were searched for peer-reviewed journals and research reports that have examined risk and/or protective factors or correlates of ADVA and TAADVA. Key search terms such as ‘adolescent(ce)’, ‘teen(age)’, and ‘youth’; ‘dating’, ‘intimate’, and ‘partner’; and ‘abuse’, ‘aggression’, and ‘violence’, were used in conjunction with ‘explanations’, ‘longitudinal’, ‘motives’, ‘nature’, ‘protective (factors)’, ‘promotive (factors)’, ‘risk (factors)’, ‘trajectories’ and ‘typologies’ in order to gather data on the trajectories, typologies, motives, and longitudinal risk and protective factors for ADVA. An example of this search technique is provided as follows: ‘adolescent’ AND ‘dating violence’ AND ‘risk (factors)’ AND ‘longitudinal’. When broadening the search to capture the relevance of ECT within this context, terms such as ‘cyber’, ‘digital’, ‘electronic’, ‘online’ and ‘technology’ were also included interchangeably. Following exhaustive searches, reference lists were also scanned from gathered literature in order to maximise the collection of as many available studies relevant to the review as possible. A number of academic reports and posters were also obtained which were found to report on the risk factors or correlates of ADVA/TAADVA. A total of 30 studies were found to report on risk/protective factors of ADVA (27 of these from the US and three from Canada) and 12 identifying correlates of TAADVA (10 from the US and two from Europe).

Inclusion criteria for these studies required that they had been published in English since the year 2000 to en-

sure the most recent literature was included in the review. Inclusion criteria also required that the samples were of adolescent age (10-18 years),<sup>[5]</sup> at the time when ADVA/TAADVA was assessed. No restrictions were applied to the geographical origin of studies. In accordance with the levels of risk factors identified by Kraemer *et al.* (1997),<sup>[6]</sup> the most valid types of risk factor were sought (*i.e.* ‘causal risk factors’). However, only longitudinal studies identifying ‘risk factors’ (*e.g.* family influence), ‘fixed markers’ (*e.g.* gender and race), and ‘variable risk factors’ (*e.g.* personal aggression, attitudes, and substance use) were found for ADVA, meaning causal relationships cannot be confirmed. In these studies, risk/protective factors were characterised by preceding the outcome (*i.e.* ADVA), and are represented in studies using longitudinal research designs whereby data is collected on at least two occasions. As TAADVA is an emerging field, this criterion (in addition to the age restriction criterion) was relaxed due to limited literature to have explored this issue. Only factors that Kraemer *et al.* (1997) describe as ‘correlates’ were identified for TAADVA, meaning the factor is associated with the outcome, represented in studies using cross-sectional research designs.<sup>[6]</sup> Due to the nature of cross-sectional methodology, it is not known whether the identified correlates precede the occurrence of TAADVA, occur alongside, or as a consequence of such behaviour. It was deemed important to include all factors identified regardless of the weight of empirical evidence for them. The areas of risk and protection for ADVA and correlates for TAADVA are discussed together.

## 2 Trajectories, typologies and motives for ADVA and TAADVA

### 2.1 Trajectories of ADVA

Relative to our understanding of the prevalence of ADVA and more recently TAADVA, less is known about the patterns of adolescent involvement in ADVA and TAADVA and how this changes over time. According to Straus (2004), dating couples are at greater risk of violent behaviour than are married couples.<sup>[7]</sup> Girls as young as 13 in Barter *et al.*'s (2009) study were as likely as those aged 16 to have experienced physical violence from their partners.<sup>[8]</sup> Recently, research has attempted to account for trajectories of ADVA, exploring the prevalence of ADVA from early to middle and older adolescence. Orpinas *et al.* (2013) investigated physical ADVA trajectories in a sample of 588, 6-12th grade adolescents and found two trajectories of victimisation for males (low and high) and females (low and increas-

ing); and two instigation trajectories for both males and females (low and increasing).<sup>[9]</sup> Brooks-Russell, Foshee, and Ennett (2013) also explored trajectories of physical dating violence victimisation in a sample of 2,566 adolescents (grades 8 to 12).<sup>[10]</sup> The authors identified three trajectories for females: (1) a low/non-involved class; (2) a moderate class where victimisation increased slightly until the 10th grade and then decreased through the 12th grade; and (3) a high class where victimisation started at a higher level in the 8th grade, increased substantially until the 10th grade, and then decreased until the 12th grade. Two trajectories were found for males: (1) a low/non-involved class; and (2) a victimised class where victimisation increased slightly until the 9th grade, decreased until the 11th grade, and then increased again through the 12th grade. It is interesting that male victimisation increased through the 12th grade while female victimisation decreased, though the reasons for these gender differences are unclear. The authors identified that situational factors (such as alcohol use and anxiety for females, and victimisation by peers for males) may contribute to ADVA victimisation trajectories. Moreover, they suggest that peer victimisation and peer dating violence require further attention in terms of the relationship between victimisation in different arenas (*i.e.* peer and dating relationships) and vulnerabilities to victimised trajectories. In a five-wave longitudinal study of 1,164 adolescents and young adults (spanning the ages of 13-28), Johnson *et al.* (2014) examined age-related trajectories of physical ADVA instigation and found that ADVA increased from early-to-middle adolescence (age 13-16) to later adolescence (age 17-20), although the increase was greater for females.<sup>[11]</sup> At 21-24 years, male instigation of violence decreased, while female instigation peaked at this age. These limited and mixed findings regarding ADVA trajectories suggest that ADVA increases throughout adolescence, with some studies then identifying periods of both decline and further increase throughout later adolescence, depending on gender. Trajectories of TAADVA victimisation and instigation however have yet to be explored.

## 2.2 Typologies of and motives for ADVA

Adolescent dating relationships are thought to be more egalitarian (*i.e.* the extent to which they are represented by inequality in power between partners) than those of adults,<sup>[12]</sup> and ADVA is reported to consist of milder forms of violence with different sources of disagreement than adult domestic violence.<sup>[13]</sup> Adolescent dating relationships are also reported to differ from adult relationships due to them being less likely to be characterised by financial or child dependency, intense involvement

with a partner's family, and because they are not legally binding relationships.<sup>[13]</sup> However, adolescent relationships may contain elements of intimacy and perceived importance that make it difficult to withdraw easily from them.<sup>[14]</sup> For example, in their study of 75 adolescent females (aged 11-17), Girlguiding (2013) found that there was a sense that the adolescents' own and their partner's lives were so closely linked (in terms of becoming close to their boyfriend's family, visiting and staying over regularly, confiding in his mother, or if their boyfriend is close to the girls own family), that it was easier to stay in relationships than to consider leaving and breaking up.<sup>[15]</sup> Adolescents may also experience peer and social pressure to participate and remain in dating relationships.<sup>[16]</sup> In terms of TAADVA, some controlling behaviours have even been interpreted as reassuring concerns for infidelity and relationship insecurity or as feeling 'loved'.<sup>[8, 15, 17]</sup> This may have implications for the continuation of an abusive or controlling relationship in terms of not recognising abuse, seeking help or ending an abusive relationship. These findings may also have implications when measuring such behaviours, as adolescents' subjective views may influence how they perceive the meaning and impact of ADVA/TAADVA behaviours they experience or use themselves.

Adolescent romantic relationships may be qualitatively different from those of adults in terms of the nature and seriousness of those relationships.<sup>[13]</sup> Consequently, it is not known whether the typologies of violence derived from adult samples are relevant to adolescent populations. Johnson developed a typology of adult Intimate Partner Violence (IPV) that proposes four types of violence based on the context of the violence and/or control and the gender symmetry of the violence.<sup>[18-20]</sup> Johnson proposes that each have different causes, patterns of development, and consequences that require different forms of intervention. These include:

**Situational Couple Violence (SCV):** Although the individual (and possibly the partner) is violent, neither the individual nor the partner is violent and controlling. This is represented by violence that is gender symmetric.

**Violent Resistance (VR):** The individual is violent but not controlling, the partner is the violent and controlling one. Mostly female instigators who have been victims of male violence.

**Intimate Terrorism (IT):** The individual is violent and controlling, the partner is not. Mostly female victims of male violence, more frequent violence, and more likely to receive injury.

**Mutual Violent Control (MVC):** The individual and the partner are violent and controlling. This is represented by violence that is gender symmetric.

Intimate terrorism has been referred to as a pattern of emotionally abusive intimidation, coercion and control, coupled with physical violence against partners,<sup>[21]</sup> as outlined in Pence and Paymar's (1993) 'Power and Control Wheel'.<sup>[22]</sup>

Johnson examined the IPV literature with representative and agency samples using the Conflict Tactics Scale (CTS) and found that SCV dominated research with general population survey samples (family violence/conflict perspective), whereas IT and VR dominated research conducted with agency samples (feminist perspective).<sup>[18,19]</sup> This was taken to suggest that differences across studies in relation to gender symmetry are related to the source of the sample (*i.e.* general population samples and agency samples). Despite act-based measures being used in both the agency and general surveys reviewed, Johnson (1995) argues that these sampling strategies are heavily biased; the former through its use of biased sampling frames (*i.e.* shelter/court samples) and the latter through refusals.<sup>[18]</sup> To further this argument Johnson (2006) notes that couples involved in SCV would be unlikely to become agency clients because victims of such violence are unlikely to seek formal intervention or end an abusive relationship.<sup>[19]</sup> Female victims of IT are reported to be more likely to leave their partners, leave them more often, to seek their own residence and formal help, or escape to locations that ensure safety (*i.e.* a refuge).<sup>[23,24]</sup> On the other hand, couples involved in IT would be unlikely to agree to participate in general surveys due to fear of reprisals from the abusive and controlling partner.

To date only two studies have examined the relevance of Johnson's typology to adolescent samples. Zweig *et al.* (2014) found that Johnson's typology of violence was a workable framework to classify a sample of 3,745 adolescents' (7-12th grade) experiences of ADVA in terms of high and low-control violent experiences.<sup>[25]</sup> For adolescents in violent relationships, the most common type of violence instigated was low-control SCV (86% for females and 80% for males), followed by high-control IT (7% for females and 11% for males), VR (6% for females and 6% for males), and high-control MVC (1% for females and 4% for males).<sup>[25]</sup> Messinger *et al.* (2014) also found that SCV was the most common type of violence instigation among 493 adolescents (aged 14-18), followed by MVC, IT, and VR.<sup>[26]</sup> The prevalence of SCV, IT and VR was similar to that found in research with adult samples,<sup>[20]</sup> however, MVC was more prevalent among adolescents in Messinger *et al.*'s (2014) study.<sup>[26]</sup> Females also reported more SCV in Messinger *et al.*'s (2014) study than that found in research with adults.<sup>[26]</sup> These findings suggest that like adult general

survey samples, ADVA is most likely to be characterised by low-control violent behaviours in relationships where both partners may be violent, but without the control of one partner over the other or a power imbalance between partners. Although, IT, VR, and MVC were still features of ADVA in these studies, highlighting the presence of abusive relationships characterised by more serious (high) control and gendered power imbalances.

Messinger *et al.* (2014) went on to develop five categories (MVC and four refined typologies) of ADVA using a relationship-level extension of Johnson's typology.<sup>[26]</sup> The same developments in typology research regarding TAADVA however have not been made. With regard to ADVA, Messinger *et al.* (2014) proposed that the categories of IT, VR, and SCV should be more clearly refined.<sup>[26]</sup>

**Violent Control-Violent Resistance relationship (VC-VR):** One partner uses high controlling violence and the second partner uses low controlling violence.

**Unilateral Violent Control relationship (UVC):** One partner uses high controlling violence and the second partner uses non-violence.

**Unilateral Situational Violent relationship (USV):** One partner uses low controlling violence and the other partner uses non-violence.

**Mutual Situational Violent relationship (MSV):** Both partners use low controlling violence.

Research has begun to explore the systematic variation in the motivating factors and context of ADVA instigation. For example, Foshee *et al.* (2007) identified four types of ADVA instigation for females and one for males.<sup>[27]</sup> These four types for females were distinguished by the motive for violence and whether the boyfriend had a history of abusive behaviour towards her: (1) patriarchal terrorism response (violence as an immediate response to violence from the boyfriend who has been historically abusive; stated self-defence and to show they are fed up with the violence as the motives); (2) anger response (no history of violence from the boyfriend; stated anger as the motive); (3) ethic enforcement (no history of violence from the boyfriend; stated letting the boyfriend know he had done something wrong as the motive); and (4) first-time aggression response (no history of violence from the boyfriend until the current incident to which the female immediately used violence; self-defence and retaliation stated as the motives). Most acts instigated by males were defined as escalation prevention, whereby males attempted to prevent the escalation of female physical violence. These types generally reflect that of the low-control couple conflict identified by Johnson (2006),<sup>[19]</sup> with the exception of the patriarchal terrorism response that reflects what

Johnson refers to as VR and Messinger *et al.* (2014) refer to as VC-VR.<sup>[26]</sup> It is interesting that motives for female instigation were more varied than the one type identified for males, however no further explanation for this is given. Of note, for males, violence instigation in a playful context was more prevalent than for females (38% vs. 29%). Both males and females identified motives for ADVA instigation related to self-defence.

The motives identified by Foshee *et al.* (2007) mirror those found in other ADVA and adult IPV studies.<sup>[27]</sup> In a large-scale review of the literature including samples from university and school populations (37% of the total sample combined), Langhinrichsen-Rohling, McCullars, and Misra (2012) identified that the most common motives for violence instigation were: power/control (76%), using violence as an expression of negative emotion (*i.e.* anger, 63%), self-defence (61%), retaliation (60%), jealousy (49%), and communication difficulties (48%).<sup>[28]</sup> O'Keefe (1997) found that the most commonly reported reason for males to instigate ADVA was anger followed by a desire to get control over their partner.<sup>[29]</sup> The most commonly reported reason for females to instigate violence was anger followed by self-defence. Jealousy was the third main reason for both sexes. Other reasons reported as motives for emotional and physical ADVA instigation for both males and females include the 'type of person' (although there is no further description of what this means; and for females more than males), relationship breakup, jealousy, alcohol, anger, getting their own way, retaliation, control, and superiority.<sup>[30]</sup> Females were more likely to instigate violence because they were angry with a partner while males were violent towards their girlfriends in response to aggression instigated by them. Over a third of adolescents (males and females) reported ADVA within a playful or joking context in Muoz-Rivas *et al.*'s (2007) study.<sup>[31]</sup> Barter *et al.* (2009) also found motives for female instigation include negative reasons (*e.g.* to hurt, impress others, jealousy, to get what they wanted, anger, to humiliate, and drinking/drugs), but also as an attempt to defend themselves or within a discourse of mutual 'play-fighting' or 'messaging around'.<sup>[8]</sup> Identified motives for male instigation include 'messaging around', followed by being due to a negative reason.<sup>[8]</sup> Finally, Fernandez-Fuertes and Fuertes (2010) found a strong link between jealousy and aggression instigation of both verbal-emotional and physical ADVA in their sample of 567, 15-19-year-old Spanish adolescents.<sup>[32]</sup> Based on these findings there appears to be some considerable overlap in the motives for ADVA instigation for males and females, although desire to get control over their partner was a motivating factor for males only in O'Keefe's (1997) study.<sup>[29]</sup> No

studies have reported on or tried to categorise motivations for TAADVA; however, Stonard *et al.* (2017) found that some adolescents may use monitoring or controlling behaviours to reassure concerns for a partner's infidelity or satisfy relationship insecurities.<sup>[33]</sup>

Researchers have also tried to classify types of aggressive events within adolescent romantic relationships. Draucker *et al.* (2010) identified eight types of aggressive events that occurred in 18-21 year olds' retrospective accounts of their adolescent (age 13-18) experiences of dating violence.<sup>[34]</sup> These types included aggressive events that were described as: tumultuous (both partners typically used aggression in events involving chaos and drama); controlling (typically an attempt to dominate one partner by the other without the use of physical violence); explosive (typically one-sided aggression involving a severe and sudden act of violence and mostly by males); scuffling (including a series of minor aggressive exchanges between partners); disparaging (typically one-sided aggression including acts of disapproval and insults or putdowns); rejecting, ignoring, or disrespecting (typically one-sided aggression); violating (typically female victims of male aggression marked by intrusion and breach of trust); and threatening (typically attempts to dominate one partner by the other). Tumultuous and scuffling types of aggression were reported to be mutually (bi-directional) aggressive situations while the other types were primarily uni-directional. The explosive and violating event types were reported to consist of mostly male instigators and female victims, reflecting the IT typology of adult IPV identified by Johnson.<sup>[18,19]</sup>

Expanding on this, Draucker *et al.* (2012) explored the types of aggressive relationships in which ADVA occurred with 85 young adults (aged 18-21) providing retrospective accounts of 114 adolescent (aged 13-18) relationships and the regularity and frequency in which this aggression occurred.<sup>[35]</sup> These types of aggressive relationships included: recurring aggression (regular and repeated); sporadic aggression (irregular and unpredictable); and routine aggression (usual or habitual way of interaction). They also identified whether the aggression was uni- or bi-directional. Seven types of adolescent aggressive relationships were identified as: turbulent (recurring aggression that was primarily bi-directional); maltreating (recurring aggression that was primarily uni-directional); brawling (sporadic aggression that was primarily bi-directional); volatile (sporadic aggression that was primarily uni-directional); bickering (routine aggression that was primarily bi-directional); deprecating (routine aggression (*i.e.* putdowns) that was primarily uni-directional); and intrusive (routine aggression (*i.e.* controlling) that was primarily uni-directional). The

participants described aggressive relationships that were uni-directional as abusive whereas bi-directional aggressive relationships were described as fights. Often both partners instigated aggression indicating low-control aggressive behaviour, while uni-directional aggression appears to represent abusive behaviour higher in control and characterised by an imbalance in power. Three of these seven types of aggressive relationships were bi-directional, reflecting SCV, while four were identified to be uni-directional, meaning there is also evidence of IT, UVC and USV in ADVA as described by Johnson (2006) and Messinger *et al.* (2014).<sup>[19,26]</sup>

The prevalence of mutual ADVA (*i.e.* when both partners instigate violence in relationships) has been documented to range from 49-79% for physical ADVA and 77-94% for psychological/emotional ADVA.<sup>[14,23,36-38]</sup> In studies that found evidence of mutual physical ADVA, males reported more exclusive victimisation while females reported more exclusive instigation.<sup>[14,37,38]</sup> Adolescents who report mutual ADVA have been found to experience and instigate more frequent ADVA than uni-directional victims or instigators.<sup>[39]</sup> It is important to note that studies reporting mutual ADVA do not always distinguish whether the participant was a victim and/or instigator within the same relationship, or whether they adopted different roles in different relationships, leading to a methodological challenge in terms of identifying the true nature of mutual violence.

Finally, it has been suggested that there may be a gender-specific quality to aggression whereby coercive methods preferred by females may differ from those preferred by males.<sup>[40]</sup> For example, female coercion may include indirect methods such as enticement, rumour spreading, and threats of withholding sex that is not typically assessed by ADVA measures.<sup>[12]</sup> This may mean that female violence towards male victims is underreported. Males may also not report abusive behaviour as a result of socially desirable responding.<sup>[41,42]</sup> Consequently, this has implications for the development of measures and prevention efforts in terms of understanding more about the nature and dynamics of ADVA in order to effectively address the issue.<sup>[12]</sup> In terms of TAADVA these issues outlined above are even less empirically advanced.

In summary, based on the literature reviewed, ADVA samples share characteristics with non-clinical adult IPV samples in terms of the types and motives for violence experienced in intimate relationships, with the low-control SCV type most often identified. However, uni-directional violence that is characterised by inequalities in power and the use of controlling behaviour between partners (and usually represented by female victimisa-

tion and male instigation) was also identified in the research reviewed. Some literature has also provided an insight into the types of aggressive events experienced by adolescents and the frequency and motives for each event type. Less is known about the typologies of TAADVA and the degree to which this is experienced as uni- or bi-directional violence among adolescent dating partners and whether this is experienced alongside ADVA. It may be reasonable to expect that TAADVA will share similar characteristics to the typologies of ADVA, however unique features of ECT and TAADVA may result in unique motives, experiences, risks and consequences compared to ADVA (see *e.g.*<sup>[15,43,44]</sup>), thereby meaning different typologies and theories might evolve.

### 3 Explaining ADVA and TAADVA

According to Ward and Beech (2006), a theory explains phenomena, why they exist and why they possess certain properties.<sup>[45]</sup> They describe an explanation as the application of a theory in an attempt to help understand certain phenomena (*i.e.* why and how specific events happen and why people behave the way they do). Ward and Hudson (1998, cited in Ward and Beech 2006: 46) distinguished three levels of theory in their framework for classifying sexual offending (see Table 1).<sup>[46]</sup> This conceptualisation of levels of theory will be applied to explanations of ADVA and TAADVA and identified risk factors in this paper.

**Table 1.** Levels of theory

Theory Level	Definition
Level 1	Provide comprehensive theories of sexual offending
Level 2	Aim to provide detailed descriptions of the single factors thought to be particularly important in the generation of sexual crimes
Level 3	Explain the process of sexual offending

Note: Ward and Hudson (1998, cited in Ward and Beech 2006: 46)<sup>[46]</sup>

Currently there exists no single Level 1, comprehensive theory of ADVA (Table 1). Literature has attempted to explain ADVA through the application of trajectories and typologies. This may represent Level 3 theories in that they attempt to describe the processes of violence in relationships through explanations of violent developmental pathways, the context of violence and level of control, motives, and gender symmetry/asymmetry of ADVA (Section 2.1-2.2). Three of the most influential theoretical perspectives that have been applied to explanations of ADVA are the attachment, feminist and social learning perspectives.<sup>[12]</sup> These theories represent Level

2 theories in that they attempt to explain single factors thought to be important to ADVA such as socio-cultural and socio-cognitive influences. Such theories are therefore not comprehensive accounts of ADVA/TAADVA and cannot be said to fully adhere to the criteria of a good theory as summarised in Table 2.<sup>[47,48]</sup>

With limited available alternatives, Ward and Hudson (1998, cited in Ward and Beech 2006: 46) assert that researchers should attempt to integrate the best existing ideas in an area within a new framework known as ‘theory knitting’, in order to identify common and unique features of relevant theories.<sup>[46]</sup> After reviewing the literature that has attempted to explain the nature and properties of ADVA/TAADVA, it appears that ADVA and TAADVA are not adequately theoretically advanced areas of research, and further investigation and theoretical development is required. Furthermore, as seen in Section 2.1-2.2, adolescents’ experiences of ADVA will vary broadly, depending on the particular situational characteristics, motives for violence, gender, and the context and dynamics of the particular relationship. Therefore, theories need to account for the heterogeneity of ADVA and TAADVA (*i.e.* the various types of violence, motives, and contexts in which it occurs, as well as a variety of risk factors). To date, the majority of empirical research conducted in relation to ADVA and TAADVA has sought to identify risk and protective factors or correlates that could be interpreted within the context of Level 2 theories. Together, these theories can contribute to explaining ADVA and TAADVA, however the nature of the risk factors applied to these theoretical perspectives needs to be considered.

Kraemer *et al.* (1997) outline the steps necessary to document risk-factor status in terms of the methodology used to measure the influence of a potential factor or characteristic of a population of interest.<sup>[6]</sup> In this framework, they define eight types of factors or non-factors based on the strength of empirical evidence for the factor (summarised in Table 3). Correlates are the weakest factors and causal risk factors are the strongest, and are determined as a result of the methodology used to gather and analyse the data.

The next sections of the paper will review the ADVA risk/protective factor and TAADVA correlate literature in terms of the identified collective areas of influence in order to assess the weight of the empirical evidence, the nature of the ‘risk’ factor and the relevant theories (*i.e.* Level 2) where possible.

### 3.1 Risk/protective factors and correlates of ADVA and TAADVA

Using Kraemer *et al.*'s (1997) criteria, the literature search identified 30 studies for ADVA risk/protective factors, fixed markers, and variable risk factors and eight studies for TAADVA risk/protective correlates that are summarised in Table 9-11.<sup>[6]</sup> The 30 longitudinal ADVA studies identified a total of 80 individual factors for ADVA victimisation, instigation and/or involvement that are summarised into 12 broader areas of risk (Table 4). Studies with more than two authors have been shorted with ‘*et al.*’ following the primary author in Tables 4-6. Three studies reported on victimisation only, 15 on instigation only, nine on victimisation and instigation separately, and three for involvement only and the adolescents in these studies ranged from age 10-24 years old (Table 9). For studies that included adolescents over the age of 18 but which also included younger adolescents (*i.e.* age 10-13 years),<sup>[49]</sup> the age inclusion criteria was relaxed. The number of waves of data collection ranged from two to eight and the time period ranged from three months to 12 years. The types of violence measured in these studies included physical (28 studies), verbal/emotional/psychological (10 studies) and sexual violence (six studies), threatening behaviour (two studies), and relational aggression (one study). Physical violence is evidently the most common type of ADVA that risk factors were examined for.

Four longitudinal studies reported a total of six protective factors for ADVA victimisation, and/or instigation that are summarised into four broader areas of protection from ADVA (Table 5). Three of these reported on instigation only, while one study reported on both victimisation and instigation and the adolescents in these studies ranged from 10-18 years old (Table 10). The number of waves of data collection ranged from two to five and the time period ranged from six months to eight years. The types of violence measured by these studies included physical (four studies) and emotional violence (one study).

Twelve cross-sectional studies reported a total of 44 correlates for TAADVA victimisation, instigation and/or involvement that are summarised into 14 broader areas of risk for TAADVA (Table 6). Two of these studies reported on victimisation only, four on instigation only, four on victimisation and instigation separately, and two for involvement only. The adolescents in these studies ranged from 11-22 years old (Table 11). TAADVA was broken down to examine non-sexual and sexual TAADVA in two studies.<sup>[38,50]</sup> Only Epstein-Ngo *et al.* (2014) reported one protective factor for TAADVA

**Table 2.** Attributes of a good theory

Attribute	Definition
Predictive accuracy, empirical adequacy and scope	The theory can account for existing findings and the range of phenomena requiring explanation
Internal coherence	Refers to whether a theory contains contradictions or logical gaps
External consistency	The theory in question is consistent with other background theories that are currently accepted
Unifying power	The existing theory is drawn together in an innovative way and can account for phenomena from related domains. It unifies aspects of a domain of research that were previously viewed as separate
Fertility or heuristic value	The theory has the ability to lead to new predictions and open up new avenues of inquiry (i.e. its capacity to lead to new and effective interventions)
Simplicity	The theory makes the fewest theoretical assumptions
Explanatory depth	The theory is able to describe deep underlying causes and processes

Note: (Hooker 1987 and Newton-Smith 2002, cited in Ward and Beech 2006: 46) <sup>[47,48]</sup>

**Table 3.** Framework for characterising ‘risk’ factors

Attribute	Definition
Non-correlate	The factor is not associated with the outcome
Concomitant or Consequence	The factor does not precede the outcome
Correlate	The factor is associated with the outcome. Precedence is not determined
Risk Factor	The factor precedes the outcome however, there is no evidence documenting the stability or variability of the factor within subjects
Fixed Marker	The factor cannot be demonstrated to change or be changed (e.g. race or gender)
Variable Risk Factor	The factor can be demonstrated to change (e.g. age or weight) or be changed (e.g. by intervention). The manipulability or the efficacy or effectiveness of manipulation of a variable risk factor has not been tested
Variable Marker	A variable risk factor that cannot be shown to be manipulable or if manipulated, cannot be shown to change the risk of the outcome
Causal Risk Factor	A variable risk factor that can be shown to be manipulable and when manipulated, can be shown to change the risk of the outcome

Note: (Kraemer et al. 1997) <sup>[6]</sup>

involvement (higher mindfulness).<sup>[51]</sup> The adolescents in this study ranged from 14–20 years old. The types of TAADVA measured by this study included overall TAADVA.

Studies measuring ADVA vary in how they define, operationalise, and measure ADVA behaviours. For example, studies vary in the measures or variants of measures used (e.g. CTS, first developed by Straus (1979)<sup>[52]</sup>) and so the wording of questions or type of relationships asked about in such research may differ. Studies may ask about adolescents’ current or most recent dating relationships, in addition to ‘dates’, or ask about historical violence in one’s lifetime or within a defined period (i.e. the last six or 12 months). The variety in the length of longitudinal studies, the number of waves and follow-up periods may also influence how comparable findings are in

studies using different designs. Furthermore, how studies define and measure the various risk factors/correlates has resulted in a vast array of individual risk/protective factors as identified in Table 4, Table 5 (ADVA) and Table 6 (TAADVA). This has implications when trying to compare and synthesise the current risk literature due to the wide variations in terminology and measurement. Despite such challenges, some general observations and conclusions can be drawn which are subsequently reviewed in Sections 3.3 to Section 3.19.

These specific risk/protective factors or correlates are summarised into conceptual groups for ADVA (Table 4 and Table 5) and TAADVA (Table 6). The discussion of each group of factors for ADVA and TAADVA is combined in order to identify patterns and similarities in the ADVA and TAADVA literature. The literature reviewed



led to the identification of 17 groups of risk/protective factors and/or correlates of ADVA/TAADVA in total that will be critically evaluated while applying relevant theoretical perspectives in relation to the empirical evidence found in this review. The studies in these tables are organised according to whether they are risk/protective factors or correlates for victimisation, instigation and/or involvement. The more dominant areas of risk (*e.g.* peer influence, family influence and personal aggression for ADVA and other dating violence experience for TAADVA) are represented by the larger number of studies to have explored these issues. These factors can be viewed as consisting of influences at multiple levels including that of the family, peer, individual factors, and broader cultural and structural influences that can be considered within the context of an ecological framework.

### 3.2 Ecological framework

The ecological model is used to conceptualise multiple predictors and collective influences into a meaningful framework,<sup>[53]</sup> that can be applied to explanations of ADVA/TAADVA reviewed in this paper. Bronfenbrenner's (1979, 1994) ecological framework,<sup>[54,55]</sup> which has been reinterpreted in the context of adult domestic violence,<sup>[56]</sup> and drawn on within the context of risk factors for ADVA,<sup>[57]</sup> outlines four levels or 'systems' in which risk factors for violence can be categorised (Table 7). This was used to classify whether the areas of risk factor found in this review influence adolescent development of ADVA at the broader socio-cultural, familial, social, and/or individual level. In addition, observations regarding the number of factors represented by each level of model can be made in order to identify the strongest areas of influence and any similarities or differences between the systems.

A summary of how these risk and/or protective factor categories identified in Tables 4-6 fit within the ecological framework is provided in Table 8. As seen in Table 8, most of the categories of risk/protective factor can be explained within the context of the microsystem with those in the macro-, exo- and ontogenetic system categories being less prominent. There is some potential overlap, for example: (1) family influence (micro- and exosystem); (2) Psychological Adjustment and Personal Competencies (PAPC) (micro- and ontogenetic system); and (3) attitudes (micro- and macrosystem).

There are a number of potentially collective influencing factors in ADVA/TAADVA including broader social-cultural, socio-cognitive, and individual level elements, although the type of the factor and weight of empirical evidence varies. White (2009) suggests that not only should ADVA be considered within the context of a so-

cial ecological model, gender and identity should also be considered at the individual, interactional and structural levels of the social ecology.<sup>[58]</sup> Gender differences are highlighted where reported in the empirical findings and are considered in terms of the ecological and theoretical context in which they may be applied in order to evaluate how factors such as gender may influence risk and protective factors/correlates for ADVA/TAADVA.

### 3.3 Peer influence

Peer influence was recognised as a variable risk factor for ADVA in 10 of the 30 studies, identifying a total of 10 individual risk factors for ADVA victimisation, instigation or involvement (Table 4). Furthermore, five studies reported four peer influence factors as a correlate for TAADVA victimisation or instigation (Table 6). Two studies also reported peer influence as a protective factor for ADVA victimisation or instigation (Table 5). Peer influence as a risk factor has been operationalised in instruments measuring friend ADVA and victimisation, association, or involvement with aggressive or anti-social peers and bullying as well as peer social norms. Protective factors have characterised peer influence based on the role of positive and pro-social relationships with friends.

One theory that has been used to account for peer influence as a risk factor for ADVA/TAADVA is Banduras Social Learning Theory (SLT),<sup>[59-61]</sup> and its explanation of the learning and modelling of behaviours through association with significant others. SLT suggests that children learn by observing role models and imitating their behaviour, which is then reinforced by a rewarding outcome for the particular behaviour. Expanding on SLT, Akers (1998) suggests the probability that people will engage in or imitate deviant behaviour is increased when they differentially associate with others who commit such behaviour, take on and support accepting attitudes towards the behaviour, and have received or anticipate a relatively greater reward for the behaviour through reinforcement.<sup>[62]</sup> This is particularly relevant to ADVA and TAADVA given that having friends who are involved in ADVA, peer aggression and bullying, and perceived social normal among peers were substantial risk factors or correlates for their own involvement in ADVA and TAADVA (Table 4 and Table 6).

In addition to the SLT perspective, opportunity perspectives such as lifestyle exposure theory<sup>[63]</sup> and assortative mating, *i.e.* the non-random coupling of individuals based on similarity on one or more characteristics,<sup>[64]</sup> may also help explain peer influence such as friend dating violence or peer aggression as a risk factor for ADVA. Rhule-Louie and McMahon (2007) describe two types of assortative mating: (1) social homogamy

(people partner with others from similar demographic backgrounds or with shared social experiences); and (2) phenotypic preference (individuals choose partners with desired attributes, which often include behaviours and traits that are similar to their own).<sup>[65]</sup> Clark (2013) suggests that if for example, adolescents engage in delinquency and associate with delinquent peers, they may be more likely to select a partner from that group and therefore be more likely to engage in delinquent behaviours, relationship conflict or be a target for victimisation, as well as being less inclined to report victimisation.<sup>[66]</sup> This perspective may explain ADVA through association or involvement with others who use and/or condone ADVA. It has also been highlighted in a review by Leen *et al.* (2013),<sup>[2]</sup> that interdependence theory<sup>[67]</sup> may help explain how friend dating violence poses a risk for ADVA due to peer relationships presenting a stronger influence than that of parents in shaping adolescents' expectations about romantic relationships. Peer influence may therefore represent a particularly important component of the 'microsystem' of the ecological model in influencing ADVA/TAADVA.

As demonstrated in Table 4, studies have reported a range of peer influence risk factors for the instigation of ADVA: friends with experience of dating violence (females only),<sup>[68]</sup> peer group relational aggression,<sup>[69]</sup> friends who use ADVA,<sup>[70]</sup> number of friends using ADVA,<sup>[71]</sup> friends who are victims of ADVA (females only),<sup>[72]</sup> early and increased involvement with anti-social peers.<sup>[73,74]</sup> Some of these risk factors, in addition to others, have also been identified for ADVA victimisation: friends with experience of ADVA (females only),<sup>[68]</sup> peer group relational aggression,<sup>[69]</sup> having a friend who has been the victim of ADVA (females only),<sup>[75]</sup> and being victimised by peers;<sup>[10]</sup> and ADVA involvement: escalation in peer victimisation (females only).<sup>[76]</sup> Specifically looking at sexual violence, Foshee *et al.* (2004) found that friend physical ADVA victimisation predicted sexual violence victimisation for females.<sup>[75]</sup> Friend ADVA appears to be a particularly influencing factor for personal ADVA, especially for females in these studies. This provides evidence for explanations of ADVA through the learning, expectation, and modelling of violence within relationships that is normalised within the peer group context. The finding that friend ADVA was a risk factor for sexual violence victimisation for females only, reflects the gender differences found for this type of abuse in reviews of prevalence literature.<sup>[1]</sup> Such findings may also lend support to normalised gender inequalities at the broader structural level of influences as described by the ecological model (in Section 3.2) and feminist theoretical perspec-

tives on IPV and sexual violence.<sup>[77-81]</sup> These theoretical perspectives are outlined in the following section (Family Influence; Section 3.4) as such perspectives have traditionally been used to explain ADVA at the familial level. Finally, peer aggression was a correlate for victimisation and instigation of TAADVA,<sup>[82]</sup> as was bullying victimisation<sup>[83]</sup> and perceived social norms of peers<sup>[85]</sup> for TAADVA instigation, and being a victim of cyberbullying for TAADVA victimisation<sup>[38,86]</sup> (Table 6). Such peer influences have therefore been identified as risk factors for ADVA and correlates of TAADVA for both victimisation and instigation, providing potential support for the SLT perspective through association with violent and aggressive peers.

Only two studies identified peer-related protective factors for ADVA, however the findings from these studies may also provide support for the SLT and association perspectives. Peer influences such as having high quality friendships,<sup>[70]</sup> having friends with pro-social beliefs (females only),<sup>[70]</sup> and increased levels of social support from friends (females only)<sup>[87]</sup> were identified as protective factors against ADVA instigation. Specifically, Richards, Branch, and Ray (2014) identified that increased levels of support from friends at baseline was associated with significantly less physical and emotional dating violence instigation at Time 2, one-year later.<sup>[87]</sup> They also found that having increased levels of social support from friends was a protective factor against emotional ADVA victimisation.<sup>[87]</sup> This is interesting considering the high prevalence of female emotional ADVA identified by Stonard *et al.* (2014) and may show promise for potential intervention strategies.<sup>[1]</sup> The SLT<sup>[59-61]</sup> perspective may explain how supportive and pro-social peer relationships are modelled with adolescents' own romantic relationships. However, previous ADVA was not always controlled for, and therefore peer influences may be better described as 'promotive' factors<sup>[88]</sup> that influence positive outcomes, including reducing the likelihood of violence that may already be present.<sup>[57]</sup> More research is needed in order to explore how this area influences male adolescents experiences and use of ADVA.

Peer influence as a risk/protective factor or correlate of ADVA and TAADVA therefore provides some support for the SLT perspective.<sup>[59-61]</sup> This may explain how adolescents learn to accept tolerant norms and attitudes that justify ADVA/TAADVA through involvement and association with others who engage in ADVA or peer aggression. Such behaviours may be reinforced by perceived rewards such as social approval or acceptance, or adhering to the social norm in ones peer group. However, Ellis, Chung-Hall, and Dumas (2013) suggest that asso-

ciations between relational aggression and dating experiences are likely to be bi-directional at the individual and group levels, leading to difficulties in interpreting the cause and effects of peer group relational aggression.<sup>[68]</sup> It is also important to remember that SLT is not a theory of ADVA (*i.e.* Level 2 theories),<sup>[46]</sup> and while it may be applied to explain single peer influence risk factors thought to be associated with ADVA/TAADVA, it is likely that such behaviour is not simply the result of behaviour replication, but a result of this connection in addition to other personal, cognitive, social, cultural, and environmental factors. Differential association also ignores individual differences,<sup>[89]</sup> and has been criticised for offering an over-simplistic and deterministic view of the learning process.<sup>[90]</sup> Nevertheless, peer influences often represent dynamic risk factors, which are thought to be easier to modify through intervention.<sup>[2]</sup>

### 3.4 Family influence

Family influence was recognised as a risk factor category for ADVA in 13 of the 30 studies, identifying a total of 18 family influence risk factors for ADVA victimisation, instigation, or involvement (Table 4). Only one study identified a family influence as a correlate of TAADVA (Table 6). Family influence as a risk factor for ADVA has been operationalised in instruments measuring parental IPV, harsh parenting practices, parent-child relationships, and child maltreatment. This category was the most common area of risk identified in the ADVA literature in terms of the number of individual risk factors measured and the number of studies reporting it. No TAADVA studies identified these family influence factors as correlates of involvement.

Several theoretical perspectives can be applied to explanations of family influence as a risk factor for ADVA: SLT,<sup>[59–61]</sup> Intergenerational Transmission Theory (IGTT) of violence,<sup>[91]</sup> attachment theory,<sup>[92–96]</sup> feminist and gender role inequality perspectives,<sup>[7, 78–81]</sup> and power and control theories.<sup>[100–102]</sup> These theoretical perspectives offer a framework to explain family influences through the observation and learning of violence and control, in addition to gender roles, as a way of behaving in intimate relationships from parents and the family context, and then through the transmission or replication of such behaviours in adolescents' own romantic relationships. Research conducted into the IGTT of domestic violence has based much of its inquiry on SLT and posits that observation of violence in the family of origin creates attitudes, ideas, and norms about how, when and towards whom aggression is appropriate.<sup>[103]</sup> Witnessing or directly experiencing violence as a child is reported to place the person at future risk for interper-

sonal violence due to messages learned about the functional nature of violence, for example, to express oneself, to solve problems, to get what they want, and to control and dominate another.<sup>[12]</sup>

Bowlby's attachment theory perspective<sup>[92–96]</sup> also provides support for family influence as a risk factor for ADVA through its explanation of how family relationships and experiences during childhood influence attachments and subsequent relationships in adolescence and adulthood. The theory posits that early attachments in infancy influence the development of Internal Working Models (IWM) of relationships and that such attitudes and expectations as well as modelled behaviours, form the basis of relationships in later life.<sup>[92]</sup> Furthermore, although attachment behaviour is especially evident during childhood, it is believed to characterise individuals throughout their life starting from birth.<sup>[95]</sup> According to Bowlby's attachment theory, in order to develop social competence, a child needs to become fully engaged in good quality relationships.<sup>[104]</sup> From an attachment perspective, adolescence is a transitional period in specific emotional, cognitive and behavioural systems, as primary attachment figure(s) shift from parents to a romantic partner.<sup>[105]</sup> Ainsworth (1967) established,<sup>[106]</sup> and later Ainsworth and colleagues<sup>[107, 108]</sup> developed and investigated four classifications of infant attachment styles including: (1) secure; (2) anxious-ambivalent; (3) anxious-avoidant; and (4) disorganised attachment. Studies have reported considerable stability in attachment patterns from late childhood to early adolescence, particularly for attachment security,<sup>[109, 110]</sup> and from mid to late adolescence.<sup>[111]</sup> Such distributions also tend to be similar to that of older adolescent and young adult samples. This is particularly relevant to ADVA given that experiencing family violence and harsh parenting practices were substantial risk factors for personal involvement in ADVA (Table 4). If insecure attachment styles are developed as a result of aggressive familial influences during childhood and adolescence, such characteristics and behaviours may be transferred to young peoples own romantic relationships.

Bowlby (1984) argues that family violence, including domestic violence and harsh punishment from parents, may have consequences for young people due to the establishment of negative characteristics in patterns of social behaviour during childhood being transmitted throughout the young person's adult life, potentially creating a cycle of violence.<sup>[96]</sup> Indeed, Steinberg, Davila and Fincham (2006) found that adolescents' negative perceptions of parental conflict were associated with insecure attachment styles with parents, which in turn influenced adolescents' negative marital expectations and

romantic experiences.<sup>[112]</sup> In addition, Dinero *et al.* (2008) found that warmth and sensitivity in family interactions (age 15-16) were positively related to similar behaviours by romantic partners and to self-reported attachment security (age 25).<sup>[113]</sup> However these authors suggest that these findings are inconsistent with the theoretical expectation that attachment security will predict the quality of interactions in romantic relationships.

The term 'feminism' describes a collection of different theoretical perspectives that attempt to explain not only the oppression of women by men but also identifies other differences and inequalities in sex roles and other intersecting factors such as race and class.<sup>[114]</sup> The feminist perspective views violence in intimate relationships as the consequence of a patriarchal system in society that is represented by male power advantages, dominance, and control over women who are thereby viewed as subordinate.<sup>[77-81]</sup> Violence in intimate relationships is viewed as being a result of such structural influences that define unequal power relations between men as perpetrators and oppressors and women as victims that can be transmitted in the family context. This perspective helps to explain family influence factors (*e.g.* IPV) as potential risks for ADVA through the transmission of gender inequality and/or patriarchal norms, values and behaviours that are supported, encouraged and maintained through the family context. Within the feminist approach, socially defined gender roles learned within the family are thought to encourage men be 'masculine', to use violence to settle disputes, and to set a foundation of both normative and acceptable behaviours in relationships that may contribute to the reinforcement of male power over women.<sup>[97,99,115,116]</sup>

Finally, the power/control theory<sup>[110-112]</sup> also considers IPV to be learned in the family setting in which violence is used to manage conflicts between family members (*i.e.* violence between parents or parent-child violence and harsh parental punishment). The family structure is believed to not only teach violence as a way of managing disputes, but also the emotional and moral meaning of violence and familial structures of power and gender inequality (*e.g.* male authority). Violence is used as a means of legitimising a dominant position within the family when that position of power or authority is threatened. Straus, Gelles and Steinmetz (1980) outline three lessons that a child is taught in terms of using violence: (1) those that love you the most are those that hit you; (2) violence can be used to secure good ends and to establish moral rightness (*e.g.* the more powerful family member hitting a child or partner to teach morally correct behaviour); and (3) violence and physical force is permissible and justified when other mea-

asures have failed.<sup>[102]</sup> This learning process is believed to pass through multiple generations, similar to that identified in the IGTT of violence. This perspective also contributes to explaining how family and parental violence contribute to ADVA through the learning and normalisation of violent behaviours, coercive tactics, and the associated values that legitimise such behaviour against family members and intimate partners.

Empirical evidence that has identified family influence as a risk factor for ADVA suggests that there are a range of factors relevant to ADVA instigation as summarised in Table 4: exposure to parental IPV,<sup>[117]</sup> hostility in parent marriage,<sup>[118]</sup> mother's experience of domestic violence and maternal IPV (males and Hispanic females only),<sup>[74]</sup> exposure to mother-to-father IPV (females only),<sup>[119,120]</sup> family conflict,<sup>[121]</sup> experience of family violence from parents (female only),<sup>[87]</sup> harsh physical punishment from mothers (Hispanic females only), low levels of hostility with father during early adolescence (female only), mother-child hostility (Hispanic females only),<sup>[73]</sup> low parental monitoring,<sup>[74]</sup> trauma-related symptoms (males only) and trauma-related anger (females only).<sup>[122]</sup> Wolfe *et al.* (2004) identified that trauma-related symptoms had a significant cross-time effect on predicting incidents of ADVA and suggested that child maltreatment was a distal risk factor for ADVA, and that trauma-related symptoms act as a significant mediator of this relationship.<sup>[122]</sup> Specifically, for adolescent males, trauma was associated with emotional abuse instigation but for females, trauma-related anger was associated with dating violence. Living in a stable two-parent home was also found to be a risk factor for ADVA instigation for African-American females,<sup>[73]</sup> which may mean that adolescents are more likely to be exposed to parental IPV as a result of both parents being present in the home. In terms of TAADVA, having observed intrusive controlling behaviors by the father was identified as a correlate for instigation.<sup>[85]</sup> The application of SLTs<sup>[59-61]</sup> identification that the modelling of socially learned behaviour may be more likely when the observer perceives themselves and the model to share similar characteristics (*e.g.* such as gender), may lend support to the finding that witnessing maternal IPV was associated with female instigation of ADVA.<sup>[119]</sup> For example, females may be more likely to model the behaviour of the mother or in the case of peer influence, female friends. It is therefore likely that some adolescents learn to use violence and controlling behaviour within relationships regardless of gender.<sup>[123]</sup>

Some of these risk factors, in addition to others, have also been identified for ADVA victimisation: exposure to parental IPV,<sup>[117]</sup> having been hit by an adult

with the intent to harm,<sup>[75]</sup> and relationship with mother (for females);<sup>[124]</sup> as well as for ADVA involvement: harsh parenting practices, and low parental monitoring (males only),<sup>[125]</sup> initial harsh punishment from parents and increasing harsh punishment from parents (females only).<sup>[76]</sup> Foshee *et al.* (2004) found that for young adolescents, having been a victim of parental violence (*i.e.* being hit by an adult with the intention of harm) was the most consistent predictor regardless of gender or outcome.<sup>[75]</sup> Hipwell *et al.*'s (2014) results showed that initial level and escalation in harsh punishment (between 10 and 13 years) and escalation in peer victimisation (10-15 years) predicted physical ADVA involvement.<sup>[76]</sup> In Lavoie *et al.*'s (2002) study, harsh parenting practices from ages 10 to 12 years were predictors of ADVA at age 16.<sup>[125]</sup> A substantial amount of literature has therefore identified family influence-related risk factors for ADVA, which appear to be supported by the social learning, attachment, feminist, gender role inequality and power/control theoretical perspectives. As with peer influence, it is important to remember that these perspectives are not theories of ADVA, and while they may be applied to explain single family influence-related risk factors thought to be associated with ADVA, it is likely that ADVA is not simply the result of behaviour replication or attachment characteristics, but a result of these connections in addition to other situational or individual factors. Moreover, as peer influences were identified as being potentially more important than those within the family context,<sup>[2]</sup> the role of attachment in relationships with peers and romantic partners may prove a promising line of future research. However, little is known about how such perspectives apply to TAADVA.

As with the social learning perspective, feminist, gender inequality, and attachment theoretical perspectives also have their limitations. Although the feminist and gender inequality theoretical perspectives help to explain the influence of some family-related risk factors (*e.g.* parental IPV), males are viewed as the primary instigators of violence and controlling behaviour, and when females are the instigators, such violence is construed as self-defence.<sup>[126]</sup> Other motives have been found for female ADVA, for example, anger, jealousy, substance use, and ethic enforcement,<sup>[8,27,30]</sup> many of which are shared with the motives for males. Although males have reported control as a motive for ADVA,<sup>[29]</sup> they have also found to report violence in self-defence too.<sup>[27]</sup> It has been identified that ADVA and TAADVA is both experienced and instigated by male and female adolescents, however highly controlling relationships and those which include a gendered power imbalance are still present,<sup>[26,34]</sup> particularity in terms of sexual

ADVA/TAADVA.<sup>[8,127-129]</sup> Therefore, the feminist perspective may be more applicable to violent relationships that have a gendered nature to them, represented by male violence and control of females, than to other typologies of ADVA.

White (2009) draws on the interactionist approach to highlight how aggression is produced and defined by gender rather than gender producing aggression.<sup>[58]</sup> For example, male aggression may be seen to define masculinity and female aggression may represent the defending of femininity or the resistance of male domination. In addition, as women have entered the labour force and gained occupational power, they have become agents of change, signifying a move towards less patriarchal structures and male domination.<sup>[130]</sup> Adolescents may learn to use violence and controlling behaviours within relationships as a result of exposure to such norms and behaviours within their family regardless of the gender of the adult or family member who effectively teaches such behaviour and techniques. Gender role theories have also been criticised for being socially deterministic, minimising individual agency in choosing to adhere to social norms and stereotypes, and for being theoretically static and failing to account for social change.<sup>[131]</sup>

Attachment theory also has limitations. First, it does not explain why securely attached individuals instigate dating violence,<sup>[16]</sup> meaning there may be other contributing factors. Second, although attachment in adolescence is thought to be connected to adolescents' functioning in several major social relationships beyond the family and to both psychosocial function and dysfunction,<sup>[132]</sup> the nature of adolescent attachment is less well understood<sup>[133,134]</sup> and even more so within the context of ADVA (and TAADVA), despite research showing the potential role of such factors in IPV.<sup>[135-137]</sup> Third, Bolen (2000) argues that while support has been found to suggest attachment may be predictable, stable and dynamic, attachment should not be viewed as a dyadic process within the 'microsystem' and should also be viewed within the context of broader societal and cultural 'macrosystems'.<sup>[138]</sup>

### 3.5 Personal aggression

Personal aggression was recognised as a variable risk factor for ADVA in 10 of the 30 studies, identifying a total of 12 separate risk factors for ADVA victimisation, instigation, or involvement (Table 4). Four of the 12 studies reported three personal aggression factors as a correlate for TAADVA victimisation or instigation (Table 6). Personal aggression as a risk factor category has been operationalised in instruments measuring various types of delinquent and aggressive behaviours such as

fighting, bullying, and aggression against peers, at school and within the home. Personal aggression represented the third most commonly reported risk factor for ADVA, following family and peer influence.

The SLT,<sup>[59–61]</sup> attachment,<sup>[92–96]</sup> feminist and gender inequality,<sup>[77–81]</sup> and power and control theories<sup>[100–102]</sup> may also explain personal aggression as a risk factor for ADVA as a result of aggression being learnt as a way of behaving in and managing interpersonal relationships. The use and expression of aggression (and masculinity and femininity) within the peer and family context may also be communicated within romantic relationships if such relationship behaviours and gender role expectations have been previously learned and reinforced.<sup>[79, 116, 139]</sup> For example, adolescents who engage in or experience aggressive and delinquent behaviours in one aspect of their lives (*e.g.* the family or peer context) may learn to use such techniques in their own romantic relationships.<sup>[140, 141]</sup> A number of studies have identified a connection between bullying behaviours toward peers and violent behaviours in dating relationships.<sup>[140–144]</sup>

Longitudinal studies have reported a range of personal aggression-related risk factors for the instigation of ADVA: delinquency and sibling aggression (males only) and bullying instigation,<sup>[145]</sup> fighting (males only),<sup>[124]</sup> aggression against peers (females only),<sup>[70, 121]</sup> peer aggression and rape myth acceptance (for males),<sup>[146]</sup> physical bullying,<sup>[160]</sup> hostility in friendships,<sup>[118]</sup> and early adolescent aggressive-oppositional problems at home.<sup>[147]</sup> Zweig *et al.* (2013) also found that instigating cyberbullying was associated with TAADVA instigation,<sup>[38]</sup> as was bullying perpetration as identified by Van Ouytsel *et al.* (2017) and Peskin *et al.* (2017).<sup>[83, 148]</sup> Specifically, Espelage *et al.* (2014) identified that for females, high school bullying instigation predicted sexual harassment violence instigation, and verbal/emotional and sexually coercive ADVA instigation.<sup>[145]</sup> For males, bullying instigation predicted sexual harassment violence instigation, verbal/emotional abuse and physical ADVA instigation, and sibling aggression and self-reported delinquency predicted sexually coercive and verbal/emotional ADVA instigation. Instigation of violence in one context appears to be related to that in another for both genders, although males reported more serious (*i.e.* greater levels) of sexual ADVA. McNaughton-Reyes and Foshee's (2013) finding that peer aggression and rape myth acceptance were risk factors for sexual ADVA instigation for males,<sup>[146]</sup> reflects the gendered nature to such risk factors supported by the feminist and gender inequality perspectives.<sup>[77–81]</sup> Gender and social learning perspectives may explain personal aggression and rape myth acceptance as risk fac-

tors for sexual ADVA through the learning, acceptance, and expectation of violence within relationships as an expression of masculine identity (*e.g.* male dominance over females).<sup>[149]</sup> Murnen, Wright, and Kaluzny (2002) conducted a meta-analysis on measures of masculine ideology and sexual aggression and found that hostile masculinity, hypermasculinity, views of men as dominant over women, and hostility towards women were components of masculine ideology that were most strongly associated with sexual aggression.<sup>[149]</sup> Rape myth acceptance however, was not as strong a correlate as expected.

Four risk factors were identified for ADVA victimisation: having been in a physical fight with a peer (males only),<sup>[75]</sup> early adolescent aggressive-oppositional problems at home and adolescent aggressive-oppositional problems at school,<sup>[147]</sup> and ADVA involvement: antisocial behaviour (males only),<sup>[125]</sup> and early adolescent aggressive-oppositional problems at home.<sup>[147]</sup> Specifically, in Lavoie *et al.*'s (2002) study, males who perceived lax monitoring from their parents in their late childhood and reported antisocial behaviour at age 15 years (*e.g.* delinquency and substance abuse) were at risk of becoming involved in violent dating relationships at age 16 years.<sup>[125]</sup> In addition, committing a greater variety of deviant behaviours was identified as a correlate for victimisation of TAADVA.<sup>[150]</sup> Bullying and physical aggression against peers may present a particular risk for males for both victimisation and instigation, although this was reported for both sexes.

### 3.6 Psychological adjustment and personal competencies

The area defined as Psychological Adjustment and Personal Competencies (PAPC) was recognised as a risk factor category for ADVA in 10 of the 30 studies, identifying a total of nine individual variable risk factors for ADVA victimisation, instigation, or involvement (Table 4). Only one of the 12 studies reported two PAPC-related correlates for TAADVA victimisation (Table 6). In addition, one study reported PAPC as a protective factor for ADVA instigation (Table 5), and one study reported PAPC as a protective correlate against TAADVA involvement.<sup>[51]</sup> The PAPC risk factors have been operationalised in instruments measuring various types of psychological, personal, behavioural, and relationship characteristics and while these represent one of the larger areas of risk in Table 4, they are sporadic in terms of the specific factors measured (*e.g.* various individual PAPC-related factors were identified in the studies reviewed).

Bowlby's attachment theory<sup>[92–96]</sup> may be applied to account for some of these PAPC factors (*e.g.* sensitivity to interpersonal rejection, anxious attachment, anxi-

ety, relationship hostility and conflict, depression, anger, and behaviour problems) as risk factors or correlates for ADVA/TAADVA. Bowlby (1984) theorised that poor experience of supportive relationships in childhood may result in fearful relationships in adulthood characterised by anxious and depressive problems.<sup>[96]</sup> In relationships, this fear and emotional reaction (*e.g.* anxiety or anger) may occur when a relationship is endangered (*i.e.* risk of loss) and may have a positive function (*e.g.* re-establish proximity). Such feelings may also be used in attempts to threaten or coerce a partner psychologically and physically.<sup>[96]</sup> In a study of 412 college students, Follingstad *et al.* (2002) identified that while anxious attachment was not directly related to attempts to control one's partner, this relationship was mediated by the person's angry temperament (*i.e.* anxious attachment was directly related to anger/angry temperament which was related to controlling behaviours).<sup>[151]</sup> Consequently, these PAPC-related risk factors may collectively contribute to ADVA/TAADVA and be connected to or result from other areas of risk, for example, parental violence and parent-child relationships as outlined by the attachment theory's explanation of the development of IWM of relationships.

Hazan and Shaver's (1987) seminal research explored the possibility that romantic love is an attachment process through which affectional bonds in infancy can be translated into terms appropriate in adult love.<sup>[135]</sup> They explain that more secure lovers described their love experiences as happy and trusting, while avoidant lovers were characterised by a fear of intimacy, and the anxious/ambivalent lover experienced love as involving obsession and extreme sexual attraction and jealousy.<sup>[135]</sup> From an attachment perspective, when proximity is disrupted, feelings of anxiety, anger or sadness may trigger attachment behaviours designed to re-establish proximity.<sup>[136]</sup> Adolescents displaying anxious insecure attachment styles may be more likely to experience and use ADVA as a way of re-establishing proximity or as a result of emotional reactions to disruptions in proximity or relationship maintenance (*e.g.* jealousy or frustration to, for example, lack of communication). Hazan and Shaver (1994) suggest this might be the root of many dysfunctional behaviours contributing to relationship dissatisfaction and dissolution.<sup>[136]</sup> In a study by Creasey and Hesson-McInnis (2001), adolescents ( $M = 20$  years old) with more insecure and anxious attachment styles were found to have more difficulties regulating emotions when distressed with romantic partners; be more likely to report more anger, sadness, and fear during their interactions with romantic partners; report less confidence in emotional regulation during conflicts; and

report more difficulties managing conflict.<sup>[152]</sup> Attachment theory may therefore provide support for PAPC-related risk/protective factors, although this is not without its limitations as identified in Section 3.4.

Studies have reported a range of PAPC risk factors for the instigation of ADVA: partner attachment anxiety,<sup>[153]</sup> anxiety (White youth),<sup>[71]</sup> high sensitivity to interpersonal rejection (females only),<sup>[119]</sup> depression/being depressed (females only),<sup>[71, 155]</sup> depressive symptoms (males only),<sup>[74, 153]</sup> externalising behaviour problems (females only and African-American females only)<sup>[73, 74]</sup> and anger (Black youth).<sup>[71]</sup> Some of these risk factors, in addition to others, have also been identified for ADVA victimisation: anxiety (females only),<sup>[10]</sup> depression (females only),<sup>[124]</sup> being depressed (for sexual ADVA only),<sup>[75]</sup> low self-esteem (males only);<sup>[75]</sup> and TAADVA victimisation: having higher depressive symptoms and levels of anger/hostility;<sup>[150]</sup> and ADVA involvement: relationship conflict (*e.g.* hostility and conflict).<sup>[140]</sup> Depression appears to be a particular risk factor for ADVA victimisation for females and low self-esteem for males in these studies. Depression is also a risk factor for instigation for females and depressive symptoms a risk factor for males. Furthermore, Ulloa, Martinez-Arongo, and Hokoda (2014) found depressive symptoms to partially mediate the relationship between attachment anxiety and ADVA instigation (10 months after).<sup>[153]</sup> High sensitivity to interpersonal rejection and externalising behaviours appear to be risk factors for instigation for females but not for males. Anxiety over of a partner's responsiveness to communication and engagement in the relationship has also been identified as a key theme related to TAADVA instigation for young adolescent females.<sup>[33]</sup>

Two studies identified protective factors for ADVA instigation: higher empathy;<sup>[155]</sup> and TAADVA involvement: higher levels of mindfulness.<sup>[51]</sup> McCloskey and Lichter (2003) note that females showed higher empathy scores overall than males, but empathy served as a buffer against peer and dating aggression equally for both sexes.<sup>[155]</sup> Epstein-Ngo *et al.*'s (2014) study of risk and promotive factors for TAADVA was conducted with 210 high-risk primarily African-American adolescents and findings suggest that ADVA/TAADVA interventions should consider strategies to increase mindfulness, although no further explanation regarding how or why are provided by the authors.<sup>[51]</sup> These findings highlight the role of various PAPC-related risk factors and correlates that may contribute to ADVA, however more research is needed in order to explore whether these are causal risk factors or instead related to a more complex structure of influences. Furthermore, the role of attachment

characteristics in TAADVA and ADVA remain relatively unexplored and require further attention.

### 3.7 Substance use

The fifth most common risk factor category that was found in nine of the 30 studies, identifying a total of eight individual variable risk factors for ADVA victimisation or instigation, was substance use (Table 4). Substance use was also identified as a protective factor for ADVA instigation in one study (Table 5), and as a correlate for TAADVA instigation in one study (Table 6). Substance use has been operationalised in instruments measuring various types, frequencies and severities of alcohol and drug use. There are no theories that have accounted for substance use as a risk factor for ADVA, however in their problem behaviour theory, Jessor and Jessor (1975, cited in Foshee *et al.* 2001: 131) suggest that adolescents who engage in one problem behaviour (*e.g.* drug use) may be more likely to engage in other problem behaviours such as early sexual intercourse and aggressive behaviours due to influences from collective individual and environmental predictors.<sup>[156]</sup> However, this does not specifically explain the process of how these factors account for ADVA. As identified in this review (Table 4, Table 5 and Table 6), a number of problem behaviours have been identified as risk factors/correlates of ADVA/TAADVA, suggesting that these may be cumulative risk factors.

Studies have reported a range of substance use risk factors for instigation of ADVA: alcohol use (females only),<sup>[72,120]</sup> heavy alcohol use,<sup>[121]</sup> marijuana use (females only),<sup>[71,121]</sup> hard drug use (males only),<sup>[120,121]</sup> and drug and alcohol use;<sup>[73,74]</sup> and for victimisation: alcohol use (females only),<sup>[10]</sup> total drinking behaviours and frequency of drinking behaviours (females only),<sup>[124]</sup> and drug use (females only).<sup>[157]</sup> Van Ouytsel *et al.* (2017) identified that substance use, including alcohol and cigarettes and the misuse of over-the-counter and prescription medications, was associated with TAADVA instigation.<sup>[83]</sup> Only two studies controlled for baseline dating violence.<sup>[71,157]</sup> Specifically, Raiford *et al.* (2007) noted that after controlling for dating violence, female adolescents who used drugs at baseline were twice as likely to experience ADVA relative to female adolescents who did not report using drugs over the previous year.<sup>[157]</sup> Foshee, McNaughton-Reyes, and Ennett (2010) also identified that for males, marijuana use was actually a protective factor against ADVA instigation.<sup>[71]</sup> Some form of alcohol use was a risk factor for victimisation and instigation for males and females; however, drug use was only identified as a risk factor for victimisation for females. With regards to instigation, while drug use was identified as a risk factor for ADVA for both

sexes, marijuana was identified as a particular risk factor for instigation for females, while hard drug use was associated with male instigation of ADVA. Alcohol and drug use has also been identified as an adolescent coping strategy for stress (which may include ADVA), in addition to being a symptom of abuse or addiction, blunting emotions, or being motivated by peer approval.<sup>[158]</sup> More research is needed in order to explore how substance use, in addition to other problem behaviours, may lead to ADVA/TAADVA for both males and females and whether this is a risk factor, consequence, or both.

### 3.8 Attitudes

Attitudes regarding dating violence were recognised as an area of risk for ADVA in four of the 30 studies, identifying a total of six individual variable risk factors for ADVA victimisation, instigation or involvement (Table 4). In addition, two factors in this category were identified as correlates for TAADVA instigation in two separate studies (Table 6). Attitude-related risk factors have been operationalised in instruments measuring acceptance of dating violence, attitudes regarding traditional gender roles, and understanding of healthy relationships.

The social learning,<sup>[59–61]</sup> attachment,<sup>[92–96]</sup> feminist and gender role/inequality,<sup>[77–81,97–99,115,131]</sup> and power and control<sup>[100–102]</sup> theoretical perspectives may each contribute to explanations of how attitudes lead to ADVA through the observation, learning and modelling of accepting or tolerant attitudes, norms and values towards dating violence and the socialisation and expectation of masculine and feminine gender roles. This theme of ‘attitudes’ as a risk factor strongly interrelates with other areas of risk at the socio-cultural, family, peer and personal levels of influence in which such attitudes may be taught and reinforced. Sutherland, Cressey, and Luckenbill’s (1992) theory of differential association also outlines how gender roles of masculinity and femininity may be developed through interaction with intimate personal groups who teach not only the techniques for deviant behaviour but also the values and attitudes related to the motives for such behaviour.<sup>[139]</sup> Próspero (2007) further suggests that boys’ perceptions about their social relations to girls may have been learned in their everyday social interactions with their family members, peers, members of the community and the media.<sup>[159]</sup> Such theoretical perspectives are particularly important in explaining how traditional gender role norms and attitudes that are tolerant towards violence may place adolescents at risk of dating violence. Cross-sectional studies investigating adolescent attitudes towards dating violence have generated some noteworthy findings. Hird (2000) found



that physical acts such as slapping, hitting and punching were described as a “normal” part of adolescent relationships, with most girls reporting being hit, held down, slapped, kicked, or punched by their boyfriends.<sup>[161]</sup>

Longitudinal studies have reported a range of attitude-related influence risk factors for instigation of ADVA: attitudes accepting of dating violence (males only),<sup>[72]</sup> acceptance of male-to-female dating violence, traditional beliefs about the family, and gendered dating scripts.<sup>[162]</sup> Some of these risk factors in addition to others have also been identified for ADVA victimisation: traditional beliefs about the family and gendered dating scripts,<sup>[162]</sup> and having less understanding of healthy relationships (females only);<sup>[157]</sup> and ADVA involvement: attitudes accepting of aggression.<sup>[53]</sup> In terms of TAADVA, endorsement of gender stereotypes<sup>[85]</sup> and norms for violence for boys against girls<sup>[148]</sup> were also identified as correlates for instigation.

Specifically, Raiford *et al.* (2007) noted that relative to female adolescents’ not experiencing dating violence, those who did were twice as likely to report less understanding of healthy relationships.<sup>[157]</sup> Lichter and McCloskey (2004) identified that possessing traditional attitudes of male-to-female relationships and justifying relationship violence was more important than whether they witnessed marital violence in childhood in predicting ADVA instigation.<sup>[159]</sup> They also noted that males involved in physical and sexual ADVA were more likely than females to endorse traditional family and gender role beliefs and dating scripts, which lends support to feminist perspectives and explanations of sexual violence. Traditional gender-role attitudes defined by masculine ideology that support male privilege and power in society are reported to encourage, condone and perpetuate sexual violence against women.<sup>[149]</sup> From this perspective, males are encouraged to be violent order to express their masculinity, while women are viewed to be sexually passive in order to be feminine.<sup>[149]</sup> Information and attitudes about gender inequality and power may be influenced at the local, regional or global levels and learned through broader societal structures as well as within the family context before being translated into adolescents own romantic relationships and expectations.<sup>[163]</sup>

The social learning, feminist, gender role/inequality, and attachment theoretical perspectives may therefore contribute to explaining how traditional gender roles and attitudes that are tolerant of ADVA are developed and modelled within adolescents’ own romantic relationships. However, other factors such as education about healthy relationships and gender equality, or the presence of positive family and peer relationships may counter

such views. In a study based on a sample of 82 adolescents (age 14-17 years) recruited from truancy courts and juvenile probation and victim services, Mueller *et al.* (2013) found that ADVA instigation at baseline predicted acceptance of violence at follow-up (3 months), after accounting for baseline levels of beliefs.<sup>[164]</sup> However, beliefs at baseline, did not predict ADVA instigation at follow-up. Therefore, attitudes may play a potential role in ADVA both before and after its onset. Beliefs and attitudes about domestic violence among adolescents and young adults (n = 891; M = 19.4 years) have also been reported to influence the intent to report abuse and actual reporting behaviour.<sup>[165]</sup>

Finally, to reiterate, social learning, feminist and gender inequality, and attachment theories are not theories of ADVA and therefore these can only be applied to these identified risk factors/correlates for ADVA in an attempt to understand how attitudinal-related risk factors may lead to ADVA. Concepts such as masculinity and femininity (and in particular hegemonic masculinity) have also been contested in research.<sup>[131, 163, 166, 167]</sup> These authors have argued against the idea of a one-dimensional notion of male masculinity and dominance as supported by the radical feminist perspective and argue for the recognition of multiple masculinities. Connell (1987, 2005) argues that in reality, most men do not actually fit the image of the tough, dominant and combative masculinity that the ideologies of patriarchy propose and may be subject to power, domination and ridicule by other males and/or women within society.<sup>[131, 168]</sup> Males may also be taught to be chivalrous,<sup>[169]</sup> to protect and respect women such as their wives, partners and mothers,<sup>[168, 170]</sup> and to have positive male and female role models in their lives.<sup>[163]</sup> The assumption that all men behave violently for the purpose of controlling women ignores the complexity in which gender and masculinity are situationally and differentially accomplished throughout society.<sup>[167]</sup> Furthermore, Connell and Messerschmidt (2005) argue that gender hierarchies are affected by social changes in women’s identity and practice, identifying a need for a more complex understanding of gender inequalities that recognises womens agency and the interplay among local, regional and global levels of gender role norms and influences.<sup>[163]</sup> For example, women may challenge and resist patriarchy,<sup>[163]</sup> as seen in White’s (2009) assertion that females may use violence as a way of defending her femininity.<sup>[58]</sup> Intersectional feminism that considers aspects of race, class, gender, sexuality and disability is believed to provide a fuller account of intersecting inequalities, oppression and differentials in power and dominance between men and women,<sup>[114, 171, 172]</sup> but also

between men and men, women and men, and women and women. The diverse range of behaviours and the context in which ADVA is experienced is complex, meaning more detailed and comprehensive theories are needed to fully account for the multidimensional nature of ADVA/TAADVA and attitudinal predictors.

### 3.9 Past dating violence, other dating violence

Past dating violence was recognised as a risk factor category for ADVA in six of the 30 studies, identifying a total of six individual risk factors for ADVA victimisation, instigation or involvement (Table 4). Eight of the 12 TAADVA studies also reported other dating violence experience as a correlate for TAADVA victimisation, instigation or involvement (Table 6), identifying 13 individual types of correlates. Past and other dating violence as a risk factor/correlate has been operationalised in instruments measuring prior victimisation, instigation or involvement in dating violence. In the case of TAADVA, this is broken down into physical, psychological, and sexual violence/coercion.

Four theories that may be used to account for past or other dating violence as a risk factor for ADVA and TAADVA are the SLT,<sup>[59–61]</sup> attachment,<sup>[92–96]</sup> feminist and gender inequality,<sup>[77–81,97–99]</sup> and power and control theories.<sup>[100–102]</sup> These theoretical perspectives may help to explain how prior or other dating violence as a risk factor or correlate, leads to or is associated with future or other types of ADVA/TAADVA. For example, earlier learned foundations of understanding of what a relationship should be like (*i.e.* experiencing or using conflict, power, violence, and coercive tactics to communicate, negotiate, and manage conflict in relationships) forms the basis of behavioural expectations in future relationships. Such findings may also provide support for the attachment perspective's view that unhealthy relationships or relationships that involve violence may be a result of poorly matched attachment characteristics.<sup>[136]</sup>

Studies have reported a range of past ADVA risk factors for instigation of ADVA; including prior ADVA victimisation,<sup>[117,121,153]</sup> prior ADVA instigation,<sup>[120]</sup> prior individual relational aggression,<sup>[69]</sup> own use of physical aggression (risk for partner's use) and partner's use of aggression (risk for own use),<sup>[154]</sup> and physical ADVA (and rape myth acceptance; for males);<sup>[146]</sup> and to a lesser extent, victimisation of ADVA: prior ADVA victimisation.<sup>[117,153]</sup> Although not identified as a specific risk factor in their primary investigation, Foshee *et al.* (2004) also identified that young adolescents already experiencing mild forms of ADVA were almost two-and-a-half times as likely than their non-victimised peers to become

victims of serious physical ADVA and 1.3 times more likely to become victims of sexual ADVA.<sup>[75]</sup> The finding that both past physical ADVA and rape myth acceptance<sup>[146]</sup> were associated with sexual ADVA instigation for males, again provides support for the feminist perspective if these behaviours are underpinned by values of male power and domination over females.<sup>[77–81]</sup> Sociocultural models incorporating patriarchal masculine ideology (*i.e.* masculine gender roles) and situational factors' relevant to sexual aggression are thought to be most promising in predicting sexual violence.<sup>[149]</sup>

Other ADVA experience has also been reported as a correlate for TAADVA instigation: physical ADVA victimisation,<sup>[82]</sup> physical ADVA instigation,<sup>[38,82,173]</sup> psychological ADVA victimisation,<sup>[82]</sup> psychological ADVA instigation,<sup>[38,82,173,174]</sup> sexual coercion instigation,<sup>[38]</sup> sexual ADVA victimisation,<sup>[82]</sup> sexual ADVA instigation,<sup>[82]</sup> being an instigator of offline ADVA,<sup>[86]</sup> stalking victimisation,<sup>[82]</sup> and stalking instigation;<sup>[82]</sup> and TAADVA victimisation: physical ADVA victimisation,<sup>[38,82,150]</sup> physical ADVA instigation,<sup>[173]</sup> psychological ADVA victimisation,<sup>[38,82,150,173]</sup> psychological ADVA instigation,<sup>[82,173]</sup> sexual coercion victimisation,<sup>[38,150]</sup> sexual ADVA victimisation,<sup>[82]</sup> being a victim of offline ADVA,<sup>[86]</sup> and stalking victimisation;<sup>[82]</sup> and finally TAADVA involvement: physical ADVA,<sup>[51]</sup> physical ADVA victimisation, and sexual ADVA victimisation.<sup>[50]</sup>

Notably, in Zweig *et al.*'s (2013) study, those who instigated sexual TAADVA reported rates of instigation of sexual coercion 17 times higher than that for non-instigators of sexual TAADVA (34% vs. 2%) and those who experienced sexual TAADVA reported rates of sexual coercion seven times that for non-victims of sexual TAADVA (55% vs. 8%).<sup>[38]</sup> Epstein-Ngo *et al.* (2014) reported that a one-unit increase in physical ADVA frequency was associated with a 20% increase in TAADVA.<sup>[51]</sup> Sixty-nine per cent of adolescents reporting sexual TAADVA also reported non-sexual TAADVA victimisation in Dick *et al.*'s (2014) study.<sup>[50]</sup> Sexual TAADVA was also related to sexual ADVA victimisation (18% vs. 6%), and sexual violence victimisation from a non-partner (36% vs. 10%). Non-sexual TAADVA was related to physical ADVA victimisation (14% vs. 2%), sexual ADVA victimisation (14% vs. 4%), and non-partner sexual violence (22% vs. 9%).<sup>[50]</sup>

Prior involvement in dating violence was therefore identified as a risk factor for further ADVA/TAADVA in these studies (for instigation in particular), signifying the importance of intervention for adolescents already involved in abusive relationships as well as for those at risk for ADVA. Various types of traditional

ADVA (physical, psychological, sexual, and stalking) were identified as correlates for TAADVA victimisation, instigation or involvement. These studies suggest that ADVA and TAADVA are not experienced in isolation from each other and that non-sexual and sexual forms of ADVA/TAADVA may also be linked. Considering the developmental and influential period of adolescence, these findings show concern for the acceptance of relationships that include violence and a risk of such behaviours and norms being carried through to more serious adult romantic relationships.<sup>[175]</sup>

### 3.10 Media exposure

Media exposure was recognised as a risk factor category for ADVA in three of the 30 studies, identifying a total of two individual risk factors for ADVA victimisation, instigation, or involvement (Table 4). Media exposure as a risk factor has been operationalised in instruments measuring aggressive media usage and having viewed X-rated movies. The SLT perspective<sup>[59-61]</sup> and feminist and gender inequality perspectives<sup>[77-81,97]</sup> may be used to explain the influence of media exposure as a risk factor for ADVA. Aggressive behaviours may be learnt and modelled from influences such as aggressive media exposure, potentially contributing to the use or acceptance of violence among adolescents who view such materials. For example, studies have reported aggressive media usage, mediated by violence-tolerant attitudes as a risk factor for ADVA victimisation,<sup>[157,176]</sup> instigation,<sup>[176]</sup> and involvement.<sup>[53]</sup> Raiford *et al.* (2007) considered X-rated movies in the context of physical exposure of negative interpersonal power dynamics between men and women and found that relative to female adolescents who have not experienced ADVA, those who did were almost twice as likely to have viewed X-rated movies.<sup>[157]</sup> Friedlander *et al.* (2013) suggest that their findings provide strong evidence of the negative long-term effect of exposure to multiple forms of aggressive media and that this effect occurs, at least in part, through the influence of attitudes tolerant of violence.<sup>[176]</sup> Manganello (2008) has similarly identified the potential role of media exposure in influencing teenage attitudes, knowledge and behaviours with regards to ADVA by providing role models and examples of how to act in dating relationships.<sup>[177]</sup> In addition, pornography may help to construct and support attitudes and behaviours that are consistent with the patriarchal structure,<sup>[149]</sup> and in which adolescents learn gendered and sexualised expectations of behaviours in romantic and sexual relationships.<sup>[128]</sup>

### 3.11 Sexual attitudes, behaviours and health

Sexual attitudes and behaviours were recognised as a risk factor category for ADVA in one of the 30 studies, identifying a total of three individual risk factors for ADVA instigation (Table 4). Three of the 12 studies also reported a total of five sexual health and behaviours as correlates for TAADVA victimisation, instigation or involvement (Table 6). This type of factor has been operationalised in instruments measuring past sexual behaviour, non-use of contraception and reproductive coercion. As with broader attitudes regarding dating violence and traditional gender roles, the SLT,<sup>[59-61]</sup> feminist and gender inequality perspectives<sup>[77-81,97]</sup> may each be applied to account for sexual attitudes and gendered sexually coercive health risk behaviours as risk factors for ADVA/TAADVA. Such theoretical perspectives and ideologies that support male authority, dominance and entitlement to violence, control and sexual intimacy towards passive females may help explain how sexual attitudes and behaviours with a particular gendered nature to them (*e.g.* female reproductive coercion) contribute to ADVA. In addition, problem behaviour theory may also be indirectly applied here in terms of the collective risks or influences of problem behaviours.<sup>[156]</sup>

Cleveland, Herrera, and Stuewig (2003) have reported a range of sexual attitudes and behaviours that are risk factors for instigation of ADVA for males:<sup>[124]</sup> sex desirability, relative timing of sex and love and past sexual behaviour (*i.e.* number of sexual partners). Having had sexual activity in ones lifetime was also identified as a correlate for TAADVA victimisation,<sup>[150]</sup> and contraceptive non-use and reproductive coercion were identified as a correlates for TAADVA involvement for females.<sup>[50]</sup> Having had sexual intercourse and having alcohol and drugs before having sex were correlates for TAADVA instigation.<sup>[83]</sup> Dick *et al.* (2014) noted that females exposed to TAADVA were two to four times more likely to not use contraception and three to six times more likely to have experienced recent reproductive coercion compared to unexposed females.<sup>[50]</sup> Sexual attitudes, behaviours and health may therefore present one of a number of predictors that together, may increase adolescents likelihood of ADVA/TAADVA. However, as with all identified risk factors that are not causal, it is likely that this is one of a number of problem behaviours or influences in adolescents lives that may place them at increased likelihood of ADVA/TAADVA.

### 3.12 Demographics

Demographic factors were recognised as a risk factor category for ADVA in two of the 30 studies, iden-

tifying one individual risk factor (or fixed marker) for ADVA victimisation or instigation (Table 4). Three of the 12 studies also reported demographics as a correlate of TAADVA victimisation or instigation (Table 6). There are no theories that have accounted for demographic characteristics as risk factors for ADVA/TAADVA, however studies have identified that being of a race other than White was a fixed marker for ADVA instigation<sup>[72, 87]</sup> and victimisation<sup>[87]</sup> for females. Being female was also a correlate for TAADVA victimisation<sup>[82, 150]</sup> and instigation.<sup>[85]</sup> In addition, being older was a correlate for TAADVA instigation.<sup>[85]</sup>

### 3.13 Education and intelligence

Educational and intelligence factors were recognised as a risk factor category for ADVA in two of the 30 studies, identifying four individual risk factors for ADVA victimisation or instigation (Table 4). One study also reported an educational factor as a protective factor against ADVA victimisation and instigation (Table 5). Educational and intelligence factors have been operationalised in studies measuring adolescents school attachment, average grades, and verbal IQ. No theories have accounted for education and intelligence as risk factors for ADVA. Studies have reported education and intelligence risk factors for instigation of ADVA: academic difficulties,<sup>[74]</sup> lower grade point average and verbal IQ (for males);<sup>[124]</sup> and ADVA victimisation: lower grade point average, and low levels of school attachment (for females).<sup>[124]</sup> Only one study identified educational factors to be a protective factor for instigation and victimisation of ADVA and that was having higher average grades (for females).<sup>[87]</sup> Although this category of risk was not prominent in the studies reviewed, educational factors such as average school grades and school attachment were suggested to be both risk and protective factors for ADVA, highlighting the role of both positive and negative educational influences in ADVA. More research is needed in order to understand how such factors may lead to an increased or decreased likelihood of ADVA.

### 3.14 Other sexual aggression

Other sexual aggression experience was also recognised as a correlate for TAADVA in two of the 12 studies, identifying a total of three individual correlates of TAADVA victimisation, instigation or involvement (see Table 6). In these studies, sexual harassment instigation was identified as a correlate for TAADVA instigation, sexual harassment victimisation for TAADVA victimisation,<sup>[173]</sup> and non-partner sexual assault victimisation for TAADVA involvement.<sup>[50]</sup> As this area of risk was identified as a correlate only, theories have not been applied

here to the extent of the other factors. However, the social learning perspective<sup>[59–61]</sup> may be relevant if sexual harassment and TAADVA are experienced and accepted as normalised behaviour within adolescence.

### 3.15 Relational factors

Two relational factors were identified as correlates for TAADVA victimisation and instigation in two of the 12 TAADVA studies (Table 6). The length of the romantic relationship was identified as a correlate for TAADVA victimisation<sup>[84]</sup> and having a current boyfriend/girlfriend was a correlate for TAADVA instigation.<sup>[148]</sup> Theories have not yet been applied to such areas of association.

### 3.16 Physical Health

One study identified one physical health-related factor, poor physical health, as a correlate of TAADVA instigation<sup>[83]</sup> (Table 6). As only one recent study has identified this factor and only as a correlate for TAADVA, no theories have yet been applied. It is difficult to conclude the significance of this factor due to limited research.

### 3.17 Environment

One study reported an environmental factor as a correlate for TAADVA involvement (Table 6) and operationalised this correlate as community violence exposure.<sup>[51]</sup> Community violence exposure as a correlate of TAADVA may be explained with the application of SLT<sup>[59–61]</sup> through the influence and modelling of aggressive behaviours or values learnt within the community in adolescents own romantic relationships. Epstein-Ngo *et al.* (2014) noted that a one-unit increase in community violence exposure frequency was associated with an 18% increase in TAADVA.<sup>[51]</sup> Due to limited research that has investigated environmental factors as risk factors for ADVA/TAADVA, it is difficult to draw firm conclusions from these findings.

### 3.18 Social status

Social status was recognised as a risk factor for ADVA in only one of the 30 studies, identifying one individual risk factor for ADVA instigation (Table 4). There are no theories that have accounted for social status as a risk factor for ADVA, however being high in social status was reported as a risk factor for instigation and for females only.<sup>[70]</sup> Due to limited research for this factor it is difficult to conclude its significance.

### 3.19 Online risk behaviour

Other risk behaviour was recognised as a correlate for TAADVA in two of the 12 TAADVA studies identifying four individual correlates for TAADVA victimisation (Table 6). These included sharing passwords with a significant other,<sup>[86]</sup> engagement in online risk behaviour, engagement in sexting with the romantic partner, and the amount of social networking site use.<sup>[84]</sup> This might suggest that adolescents who freely share their passwords and send sexual images to a partner place themselves at increased likelihood of TAADVA by leaving their personal accounts and privacy available to intrusion by a partner for abusive or surveillance purposes. Additionally, frequent use of online social media tools and engagement in risky behaviour online may open up opportunities for abuse as a result of increased exposure to potential instigators as part of adolescents' daily routines as explained by routine activity theory.<sup>[178]</sup> Furthermore, although self-control theory<sup>[179]</sup> has not been applied to explanations of TAADVA, Ngo and Paternoster (2011) found that low-levels of self-control were related to increased likelihood of experiencing online harassment from a stranger or non-stranger.<sup>[180]</sup> The free sharing of information online and availability of personal details may allow a partner to access the others social networking accounts or mobile phones covertly which may lead to risks that information could be used in a negative way (*i.e.* online harassment) and in the context of TAADVA.

### 3.20 Methodological factors relevant to the interpretation of the results

Several risk and protective factors for ADVA and correlates for TAADVA have been identified with variations in how these factors are defined and measured. The broad range of individual risk and protective factors have been summarised into categories of risk to provide an overview of factors relevant to ADVA and TAADVA. The variations in ways risk factors/correlates are defined and measured, which for many essentially measure variants of the same behaviour, makes firm conclusions difficult to ascertain. Some broad conclusions can be made from the findings of this review, however studies present a scattered variety of influences, with some factors (*e.g.* peer aggression, peer ADVA, family IPV exposure, personal aggression, and past ADVA) becoming more prominent in the literature while other factors are more sporadic (*e.g.* PAPA-related factors), but collectively and theoretically prominent. Furthermore, variations in study length, number of data collection waves, ages of participants, the type of samples,

and factors that are controlled for may influence research findings and their comparability. There is a clear need for more longitudinal studies and for a standard risk instrument in order to make further research more comparable. There is a particular lack of longitudinal research for TAADVA and a lack of risk research on ADVA and TAADVA in the UK. More standardised methods and measures would provide opportunities to make comparisons between studies in order to understand what and how risk/protective factors leave adolescents at increased or decreased likelihood of becoming involved in ADVA/TAADVA.

Ideally, studies should follow young people from early adolescence or childhood, in order to control for as many factors as possible (including previous dating violence), in order to assess risk at various life points, thereby improving reliability and conclusiveness of future research findings. However, some of these factors would be practically and ethically challenging to study and follow over a long period of time without intervention. A lack of research identifying causal risk factors leads to questions in terms of the validity of these findings due to the methodologies not directly measuring cause-effect relationships.<sup>[181]</sup> These risk/protective factors or correlates identified in this chapter can only be explained with the application of Level 2 theories of behaviour,<sup>[46]</sup> through potential explanations of how these single risk and protective factors may contribute to ADVA/TAADVA victimisation and/or instigation, rather than providing comprehensive explanations. Therefore, ADVA and even more so TAADVA, is not theoretically advanced, and while many individual risk factors have been identified, no coherent theoretical framework currently exists.

## 4 Discussion

The findings from this paper highlight that ADVA and TAADVA consist of a diverse range of abusive and controlling behaviours and relationships may vary in terms of the use of controlling behaviours, type of violence (physical, psychological, and sexual) and whether the violence is uni- or bi-directional and gender symmetric or not. This review of risk and protective factors/correlates for ADVA/TAADVA identified an extensive range of factors, particularly for ADVA. Many of the risk factors were reported for both victimisation and instigation of ADVA and TAADVA. Studies reporting risk factors for instigation are much more prevalent in the literature. These factors have been organised into collective areas of risk, protection or association, in order to attempt to critically synthesise their significance in relation to the empirical evidence and applicable available theories. An

absence of longitudinal studies that have investigated the trajectories, typologies, motives, risk and protective factors for TAADVA signify a need for future research in order to more accurately explain TAADVA and its associated risks. In addition, further rigorous research is needed to establish cause-and-effect relationships. Further research is also needed to explore gender differences in risk factors for ADVA and TAADVA, because while many similarities are found in this review, some notable differences were apparent (*e.g.* for risk areas such as substance use, peer influences, and certain PAPC and educational factors), and gender differences are not always reported with regards to TAADVA. Such research should utilise more standardised risk assessment tools in order to facilitate accurate comparisons.

In terms of ADVA, family influence (13 studies) and peer influence (11 studies) were the most prominent risk factors identified in the review for both victimisation and instigation. Although, peer influence was reported to be more significant in adolescents' own involvement in ADVA due to peers reportedly playing a more influencing role than parents during adolescence.<sup>[2]</sup> Following this, PAPC (10 studies), personal aggression (nine studies), and substance use (nine studies) were the next most prevalent risk factors for ADVA. Bowen and Walker (2015: 55) note that risk and protective factors identified at the individual (*i.e.* ontogenetic) level may have the strongest relationship with ADVA due to their developmental proximity.<sup>[57]</sup> Other ADVA victimisation, instigation, or involvement was a common correlate for both victimisation and instigation of TAADVA. Peer influence (two studies) was the most commonly reported protective factor for ADVA, although limited research is available on protective factors. These findings highlight implications in terms of a need to take into consideration the multiple factors (*e.g.* peer, familial, personal, attitudinal and PAPC) that may be relevant to ADVA and TAADVA in order to inform both prevention (*i.e.* through education) and intervention (*i.e.* through support services).

Throughout this review, ADVA/TAADVA and the associated risk factors/correlates have been primarily explained using the social learning, feminist and gender role, and attachment theoretical perspectives, which each have their strengths and growing empirical evidence to support them. However, they each have their weaknesses and at the moment no comprehensive theory of ADVA/TAADVA exists. These are not specific theories of ADVA/TAADVA and therefore cannot provide a comprehensive account (*e.g.* Level 1 theories<sup>[46]</sup>) for how these risks or correlates may explain ADVA/TAADVA, but rather how such factors may be potential influences

in adolescents' acceptance, experience and/or use of ADVA/TAADVA by identifying characteristics of those involved in ADVA/TAADVA. Furthermore, the extent to which these factors and theories have been applied to TAADVA has been limited. In order to progress towards a more comprehensive understanding of ADVA and TAADVA, further research is needed to explore whether factors and theories found to be associated with ADVA are also associated with TAADVA, and the potential role of available theories in combination in explaining such behaviour in order to build on this to make steps towards developing a competent comprehensive theory of ADVA/TAADVA. Despite their differences, there are similarities between these three theoretical perspectives that have been applied to explanations of ADVA that can work in sync in order to provide a more detailed account of ADVA/TAADVA.

Social learning theory offers an overarching socio-cultural explanation of the learning process of violent behaviours, attitudes, relationship functioning, and societal expectations of gender, and has widely been researched and applied to ADVA (particularly in terms of influences such as peer ADVA, family violence and attitudes). The feminist perspectives on the other hand specifically identify how the broader structural, socio-cultural prescriptions of gender, inequality, patriarchy, oppression, power, and dominance are learned. The attachment theoretical perspective provides an explanation of how individual socio-cognitive factors such as attachment style characteristics (*e.g.* security, anxiety and avoidance) developed in the family during childhood may influence violence in relationships as a result of the development of IWM of relationship functioning. For example, family violence and problematic parent-child relationships are viewed as resulting in insecure attachment style characteristics. The attachment perspective also helps to explain several PAPC and behaviours (*e.g.* relationship hostility and conflict, depression, self-esteem, anxiety, sensitivity to interpersonal rejection, and behaviour problems) related to relationship functioning. The combination of all three theoretical perspectives together help to explain how violence in relationships becomes learned, favoured, tolerated, accepted and even expected as a way of communicating and negotiating intimacy, sexuality, gender-roles, conflict and power, at all levels of the ecological model. In addition, these perspectives each attempt to explain the motives, techniques, and sources of reinforcement (*i.e.* power, control, establishing proximity in relationships, social approval, or defending gender<sup>[182]</sup>) shaped within the familial, peer, and cultural contexts during childhood and adolescence. Referring back to the attributes of a good

theory,<sup>[47,48]</sup> a combination of these theoretical perspectives outlined in this review shows potential for accounting for multiple existing findings. This also shows opportunity for integration (*i.e.* attempts to adhere to the attribute of unifying power) of these theories in order to account for the various influences in ADVA/TAADVA in an innovative way (*e.g.* the role of socio-cultural influences as well as socio-cognitive influences, individual, and situational factors of the ecological model). There however, appears to be a gap in the literature regarding the role of attachment style characteristics in ADVA and TAADVA and the role of peer (social learning perspective) and gender inequality (feminist perspective) influences in TAADVA.

The role of attachment theory in adolescent relationships and ADVA/TAADVA is considerably less empirically and theoretically advanced compared to the SLT and feminist perspectives. Attachment theory appears to account for several family influence, personal, PAPC-related, and attitudinal factors found to be associated with ADVA/TAADVA. However, there has been little research on adolescent attachment theory, attachment characteristics and its role in ADVA or TAADVA directly, despite having been identified and researched within the context of adult IPV, being identified as a potential issue in this review. Furthermore, it is not known how attachments to different groups (*i.e.* parents, peers, and romantic partners) differ and their role in ADVA/TAADVA. For example, the finding that peer influences were particularly important (compared to family influences) may suggest that peer attachments play an equally significant role in ADVA/TAADVA as parental attachment. With regards to ECT, adolescents have been found to develop and maintain relationships online and consider those to be attachment relationships.<sup>[183]</sup> A small study by Levine and Edwards (2014) with two adolescent females (age 15) found that for the females, attachment 'made sense' as a way of describing both their offline and online friendships, and that their secure relationships with parents were interpreting or guiding relationships with online friends.<sup>[183]</sup> More research is needed to explore the role of various attachments in TAADVA and adolescent romantic relationships more generally.

The potential role of attachment anxiety within romantic relationships was identified as a key theme and a particular issue for young females in a study by Stonard *et al.* (2017) that explored the role of ECT in romantic relationships, communication and dating violence.<sup>[33]</sup> In Stonard *et al.*'s (2017) study, younger adolescent females were found to report feelings of anxiety, insecurity, jealousy, and obsession in terms of their ECT use within romantic relationships.<sup>[33]</sup> They also perceived the im-

portance of communication more strongly, had a greater preoccupation with a partner's responsiveness to communication (*i.e.* proximity seeking), and worried about a partner's fidelity and communication with others of the opposite sex. This appeared to be enhanced by unique features of ECT (*e.g.* the constant, instant access and availability to contact a partner and access their personal information online). As a new method to communicate abusive behaviours, it is not known whether traditional theoretical perspectives equally apply to TAADVA instigated electronically, whether these traditional theories apply but need to be adapted, or whether even further developments of a new theory needs to be established in order to account for this new context of behaviour.<sup>[184]</sup>

Finally, as a result of a lack of empirical research regarding adolescent attachment and romantic relationships, it is not known how factors such as age, maturation, relationship seriousness and dating behaviours may influence adolescent attachment to romantic partners and how such attachments influence adolescent experiences of ADVA/TAADVA. Cleveland, Herrera, and Stuewig (2003) suggest that their findings provide support for relationship seriousness not as a direct predictor of ADVA, but as a mediator or facilitator for some of the identified individual-level characteristics thought to influence ADVA such as school attachment (males and females), timing of sex and love (males), grade point average (males), and number of sexual partners (females).<sup>[124]</sup> Further research is needed to explore the role of attachment, relationship characteristics, and peer influences such as friend dating violence in self-reported ADVA and TAADVA.

## 5 Conclusion

This paper has critically reviewed and synthesised the literature that has reported on risk/protective factors and correlates of ADVA/TAADVA and relevant theoretical perspectives. It is concluded that various theoretical perspectives are needed to account for the multidimensional nature of ADVA/TAADVA and the numerous potential influencing factors associated with ADVA/TAADVA. Based on the findings from this review, it is recommended that further research is needed to establish a more comprehensive theory of ADVA and TAADVA and that future measures of longitudinal risk factors for ADVA and TAADVA should attempt to standardise factors explored and aim to measure factors represented by the highest and most methodologically sound risk factor status (*i.e.* causal risk factors).

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**Table 4.** Summary of adolescent dating violence and abuse risk factors and studies

Risk factor area	Subcategory	Victimisation	Instigation	Involvement
Peer influence	Friends with experience of dating violence	Arriaga and Foshee (2004)	Arriaga and Foshee (2004)	
	Peer group relational aggression	Ellis et al. (2013)	Ellis et al. (2013)	
	Friends who use dating violence		Foshee et al. (2013)	
	Number of friends using dating violence		Foshee et al. (2010)	
	Friends who are victims of dating violence		Foshee et al. (2001)	
	Having a friend who has been the victim of dating violence	Foshee et al. (2004)		
	Early involvement with anti-social peers		Schnurr and Lohman (2013), Schnurr and Lohman (2008)	
	Increase in involvement with antisocial peers		Schnurr and Lohman (2008)	
	Being victimised by peers	Brooks-Russell et al. (2013)		
	Escalation in peer victimisation			Hipwell et al. (2014)
Family influence	Exposure to parental intimate partner violence	Tschann et al. (2009)	Tschann et al. (2009)	
	Hostility (psychological abuse) in parent marriage		Stocker and Richmond (2007)	
	Mother's experience of domestic violence		Schnurr and Lohman (2013)	
	Exposure to mother-to-father intimate partner violence		Moretti et al. (2014), Temple et al. (2013)	
	Family conflict		McNaughton-Reyes et al. (2014)	
	Experience more family violence from parents		Richards et al. (2014)	Lavoie et al. (2002)
	Harsh parenting practices			Hipwell et al. (2014)
	Initial harsh punishment from parents			Hipwell et al. (2014)
	Increasing harsh punishment from parents			
	Harsh physical punishment from mothers			Schnurr and Lohman (2008)
	Been hit by an adult with the intent to harm			
	Low levels of hostility with father during early adolescence		Foshee et al. (2004)	
	Mother-child hostility			
	Relationship with mother	Cleveland et al. (2003)		
	Low parental monitoring			
Trauma-related symptoms				
Trauma-related anger				
Living in stably two-parent home				Lavoie et al. (2002)

**Table 5.** Summary of adolescent dating violence and abuse risk factors and studies

Risk factor area	Subcategory	Victimisation	Instigation	Involvement
Personal aggression	Delinquency		Espelage et al. (2014) Cleveland et al. (2003)	
	Fighting			
	Been in a physical fight with a peer	Foshee et al. (2004)		
	Aggression against peers		Foshee et al. (2010), McNaughton-Reyes et al. (2014) McNaughton-Reyes and Foshee (2013)	
	Peer aggression and rape myth acceptance			
	Physical bullying		Foshee et al. (2014)	
	Bully perpetration		Espelage et al. (2014)	
	Antisocial behaviour			Lavoie et al. (2002)
	Hostility in friendships		Stocker and Richmond (2007)	
	Sibling aggression		Espelage et al. (2014) Makin-Byrd et al. (2013)	Makin-Byrd et al. (2013)
Psychological adjustment & personal competencies	Early adolescent aggressive-oppositional problems at home	Makin-Byrd et al. (2013)		
	Adolescent aggressive-oppositional problems at school	Makin-Byrd et al. (2013)		
	Anxiety	Brooks-Russell et al. (2013)	Foshee, McNaughton-, and Ennett (2010)	
	Attachment anxiety		Ulloa et al. (2014)	
	High sensitivity to interpersonal rejection		Moretti et al. (2014)	
	Depression / Being depressed	Cleveland et al. (2003), Foshee et al. (2004)	Foshee et al. (2010), McCloskey and Lichter (2003) Schnurr and Lohman (2013), Ulloa et al. (2014)	
	Depressive symptoms			
	Low self-esteem	Foshee et al. (2004)		
	Externalising behaviour problems		Schnurr and Lohman (2008), Schnurr and Lohman (2013)	
	Anger		Foshee et al. (2010)	Connelly et al. (2010)
Substance use	Relationship conflict (hostility, conflict)			
	Alcohol use	Brooks-Russell et al. (2013)	Foshee et al. (2001), Temple et al. (2013)	
	Total drinking behaviours	Cleveland et al. (2003)		
	Frequency of drinking behaviours	Cleveland et al. (2003)		
	Heavy alcohol use		McNaughton-Reyes et al. (2014)	
	Drug use	Raiford et al. (2007)		
	Marijuana use			
	Hard drug use		Foshee et al. (2010), McNaughton-Reyes et al. (2014) McNaughton-Reyes et al. (2014), Temple et al. (2013)	
	Drug and alcohol use		Schnurr and Lohman (2013), Schnurr and Lohman (2008)	



**Table 6.** Summary of adolescent dating violence and abuse risk factors and studies

Risk factor area	Subcategory	Victimisation	Instigation	Involvement	
Attitudes	Attitudes accepting of dating violence		Foshee et al. (2001)		
	Acceptance of male-to-female dating violence		Lichter and McCloskey (2004)		
	Traditional beliefs about the family	Lichter and McCloskey (2004)	Lichter and McCloskey (2004)		
	Gendered dating scripts	Lichter and McCloskey (2004)	Lichter and McCloskey (2004)	Connelly et al. (2010)	
	Attitudes accepting of aggression				
Past dating violence	Less understanding of healthy relationships	Raiford et al. (2007)			
	Prior adolescent dating violence victimisation	Tschann et al. (2009)	McNaughton-Reyes et al. (2014), Tschann et al. (2009)		
	Prior adolescent dating violence instigation		Temple et al. (2013)		
	Prior individual relational aggression		Ellis et al. (2013)		
	Own use of physical aggression (risk for partner's use)		O'leary and Smith Slep (2003)		
	Partner's use of physical aggression (risk for own use)		O'leary and Smith Slep (2003)		
	Physical dating aggression and rape myth acceptance		McNaughton-Reyes and Foshee (2013)		
	Academic difficulties		Schnurr and Lohman (2013)		
	Educational / intelligence factors	Grade Point Average	Cleveland et al. (2003)	Cleveland et al. (2003)	
		School attachment (low levels of)	Cleveland et al. (2003)		
Verbal IQ					
Media exposure	Aggressive media usage	Friedlander et al. (2013)	Cleveland et al. (2003)	Connolly et al. (2010)	
	Viewed X-rated movies	Raiford et al. (2007)	Friedlander et al. (2013)		
Sexual attitudes and behaviours	Sex desirability		Cleveland et al. (2003)		
	Relative timing of sex and love		Cleveland et al. (2003)		
	Past sexual behaviour (No. of sexual partners)		Cleveland et al. (2003)		
Social status	High social status		Foshee et al. (2013)		
	Being of a race other than white	Richards et al. (2014)	Foshee et al. (2001), Richards et al. (2014)		

**Table 7.** Summary of adolescent dating violence and abuse protective factors and studies

Protective factor area	Subcategory	Victimisation	Instigation
<b>Peer influence</b>	High quality friendships		Foshee et al. (2013)
	Friends with pro-social beliefs		Foshee et al. (2013)
	Increased levels of social support from friends	Richards, Branch, and Ray (2014)	Richards, Branch, and Ray (2014)
<b>Psychological adjustment &amp; personal competencies</b>	Higher empathy		McCloskey and Lichter (2003)
<b>Educational factors</b>	Higher average grades	Richards, Branch, and Ray (2014)	Richards, Branch, and Ray (2014)
<b>Substance use</b>	Marijuana use	-	Foshee, McNaughton-Reyes, and Ennett (2010)

**Table 8.** Summary of technology-assisted adolescent dating violence and abuse risk correlates and studies

Risk factor area	Subcategory	Victimisation	Instigation	Involvement
Other dating violence experience	Physical ADVA			Epstein-Ngo et al. (2014)
	Physical ADVA victimisation	Cutbush et al. (2010), Zweig et al. (2013), Zweig et al. (2014)	Cutbush et al. (2010)	Dick et al. (2014)
	Physical ADVA instigation	Cutbush et al. (2012)	Cutbush et al. (2010), Cutbush et al. (2012), Zweig et al. (2013)	
	Psychological ADVA victimisation	Cutbush et al. (2010), Cutbush et al. (2012), Zweig et al. (2013), Zweig et al. (2014)	Cutbush et al. (2010)	
	Psychological ADVA instigation	Cutbush et al. (2010), Cutbush et al. (2012)	Cutbush et al. (2010), Cutbush et al. (2012), Korchmaros et al. (2013), Zweig et al. (2013)	
	Sexual coercion victimisation	Zweig et al. (2013), Zweig et al. (2014)	Zweig et al. (2013)	Dick et al. (2014)
	Sexual coercion instigation	Cutbush et al. (2010)	Cutbush et al. (2010)	
	Sexual ADVA victimisation	Hinduja and Patchin (2011)	Hinduja and Patchin (2011)	
	Sexual ADVA instigation	Cutbush et al. (2010)	Cutbush et al. (2010)	
	Being a victim of offline ADVA			
	Being an instigator of offline ADVA			
	Stalking victimisation	Cutbush et al. (2010)	Cutbush et al. (2010)	
	Stalking instigation			
	Other sexual aggression experience	Non-partner sexual assault victimisation		
Sexual harassment victimisation		Cutbush et al. (2012)	Cutbush et al. (2012)	
Sexual harassment instigation				
Peer aggression		Cutbush et al. (2010)	Cutbush et al. (2010)	
Peer influence	Being a victim of cyberbullying	Hinduja and Patchin (2011), Zweig et al. (2013)		
	Bullying victimization		Van Ouytsel et al. (2017)	
Personal aggression	Perceived social norms of peers		Van Ouytsel, Ponnet, and Walrave (2017)	
	Committing a greater variety of deviant behaviours	Zweig et al. (2014)		
	Being an instigator of cyberbullying		Zweig et al. (2013)	
	Bullying perpetration		Van Ouytsel et al. (2017), Peskin et al. (2017)	

**Table 9.** Summary of technology-assisted adolescent dating violence and abuse risk correlates and studies

Risk factor area	Subcategory	Victimisation	Instigation	Involvement
Psychological adjustment and personal competencies	Having higher levels of depressive symptoms	Zweig et al. (2014)		Dick et al. (2014)
	Having higher levels of anger/hostility	Zweig et al. (2014)		Dick et al. (2014)
Sexual health and behaviours	Contraceptive non-use		Van Ouytsel et al. (2017)	
	Reproductive coercion		Van Ouytsel et al. (2017)	
	Having had sexual activity in ones lifetime	Zweig et al. (2014)		
Family influence	Having had sexual intercourse			
	Using alcohol or drugs before having sex			
Physical health	Having observed intrusive controlling behaviors by the father		Van Ouytsel, Ponnet, and Walrave (2017)	
	Poor physical health		Van Ouytsel et al. (2017)	
Substance use	Substance use (alcohol and cigarettes and the misuse of over-the-counter and prescription medications)		Van Ouytsel et al. (2017)	
	Endorsement of gender stereotypes		Van Ouytsel, Ponnet, and Walrave (2017)	
Attitude	Norms for violence for boys against girls		Peskin et al. (2017)	
	Community violence exposure			Epstein-Ngo et al. (2014)
Relational	Length of the romantic relationship	Van Ouytsel, Ponnet, and Walrave (2016)		
	Having a current boyfriend/girlfriend		Peskin et al. (2017)	
Online risk behaviour	Sharing passwords with a significant other	Hinduja and Patchin (2011)		
	Engagement in online risk behaviour	Van Ouytsel, Ponnet, and Walrave (2016)		
	Engagement in sexting with the romantic partner	Van Ouytsel, Ponnet, and Walrave (2016)		
	Amount of social networking site use	Van Ouytsel, Ponnet, and Walrave (2016)		
Demographics	Being female	Cutbush et al. (2010), Zweig et al. (2014)	Van Ouytsel, Ponnet, and Walrave (2017)	
	Being older		Van Ouytsel, Ponnet, and Walrave (2017)	

**Table 10.** Ecological systems

System	Definition
Macrosystem	<ul style="list-style-type: none"> <li>• Broadest level of analysis<sup>d</sup></li> <li>• Overarching sociocultural influences including belief systems, attitudes, bodies of knowledge<sup>c</sup></li> <li>• Factors that maintain gender inequality, gender role norms and pro-violence societal norms<sup>d</sup></li> </ul>
Exosystem	<ul style="list-style-type: none"> <li>• Represents the linkages between the family and the broader culture and/or integration within a community<sup>b</sup></li> <li>• Socio-demographic factors and family structure<sup>c</sup></li> </ul>
Microsystem	<ul style="list-style-type: none"> <li>• A pattern of activities, social roles and interpersonal relations<sup>a</sup></li> <li>• Risk factors that arise from the characteristics of families and individuals<sup>b</sup></li> <li>• Includes the attributes, behaviours and attitudes of adolescents, the family and peer group<sup>c</sup></li> </ul>
Ontogenetic system (individual)	<ul style="list-style-type: none"> <li>• Risk/protective factors that arise from within the individual as a function of physiology, cognitions, learned behavioural responses or predispositions and emotional responses<sup>b</sup></li> </ul>

Note: <sup>a</sup> Bronfenbrenner (1994); <sup>b</sup> Dutton (1995); <sup>c</sup> Connolly *et al.* (2010); <sup>d</sup> Bowen and Walker (2015)<sup>[53,55-57]</sup>

**Table 11.** Areas of risk/protector factor in relation to the ecological framework proposed in Table 7

System	Risk/protective factor
Macrosystem	Attitudes; Media Exposure; Educational
Exosystem	Family influence; Demographics; Environment; Social status
Microsystem	Peer Influence; Family Influence; Personal aggression; Psychological Adjustment and Personal Competencies; Attitudes; Past/Other ADVA; Sexual Attitudes, Behaviours and Health; Other Sexual Aggression; Relational factors; Online Risk Behaviours
Ontogenetic system (individual)	Psychological Adjustment and Personal Competencies; Substance Use; Intelligence

**Table 12.** Summary and Methods of ADVA Risk Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Risk	Perpetration Risk	Involvement Risk
Arriaga & Foshee (2004)	US N = 526 12-17 years	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	Friends with experience of dating violence (female only)	Friends with experience of dating violence (female only)	-
Brooks-Russell, Foshee, & Ennett (2013)	US N = 2,566 8-12 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 4 waves, 2 years	Physical violence	Alcohol use (females only) Anxiety (females only) Being victimised by peers	-	-
Cleveland, Herrera, & Stuewig (2003)	US N = 603 <sup>f</sup> 16-17 <sup>th</sup> years	Longitudinal	Interview 2 waves, 1 year	Physical violence	Grade Point Average (female only) Relationship with mother (female only) School attendance (low levels of female only)	Grade Point Average (male only) High verbal IQ (male only) Sex desirability (male only) Relative timing of sex and love (male only) Number of sexual partners (male only) Fighting (male only)	-
Connolly et al. (2010)	Canada N = 627 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical violence	Total drinking behaviors (female only) Frequency of drinking (female only) Depression (female only)	-	Attitudes accepting of aggression Relationship conflict (hostility, conflict) Aggressive media use (mediated by violence tolerant attitudes)
Ellis, Chung-Hall & Dumas (2013)	US N = 598 14-17 years	Longitudinal	Self-report questionnaire 2 waves, 6 months	Verbal, physical, sexual, threatening and relational aggression	Peer group relational aggression	Peer group relational aggression Individual relational aggression	-
Espelage et al. (2014)	US N = 1,162 10-20 years	Longitudinal	Self-report questionnaire 7 waves, 5 years	Physical, verbal emotional abuse, and sexual coercion	-	Bully perpetration Sibling aggression (male only) Delinquency (male only)	-
Foshee et al. (2014)	US N = 1,154 6-8 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 2 waves, 2 years	Physical violence	-	Physical bullying	-
Foshee et al. (2013)	US N = 3,412 7-12 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 5 waves, 2.5 years	Physical violence	-	Friends who use dating violence High in social status (female only)	-
Foshee, McNaughton-Reyes, & Ennett (2010)	US N = 1,666 8-10 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	-	Depression (female only) Marijuana use (female only) Aggression against peers (female only) Anxiety (white youth) Anger (black youth) Number of friends using dating violence	-

**Table 13.** Summary and Methods of ADVA Risk Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Risk	Perpetration Risk	Involvement Risk
Foshee et al. (2004)	US N = 1,291 8-9 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 4-5 waves, 4-5 years	Serious physical (P) and sexual (S) violence	Been hit by an adult with the intention of harm (P) Low self-esteem (P - male only) Been in a physical fight with a peer (P - male only) Having a friend who has been the victim of dating violence (S - female only) Being depressed (S - female only)	-	-
Foshee et al. (2001)	US N = 1,186 8-9 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 2 waves, 1.5 years	Physical and sexual violence	-	Friends who are victims of dating violence (female only) Alcohol use (female only) Attitudes accepting of dating violence (male only) Behaving in a race other than white (female only)	-
Friedlander et al. (2013)	Canada N = 484 14-17 years	Longitudinal	Self-report questionnaire 3 waves, 3 years	Physical violence	Aggressive media usage (mediated by violence-tolerant attitudes)	Aggressive media usage (mediated by violence-tolerant attitudes)	-
Hipwell et al. (2014)	US N = 475 <sup>a</sup> 10-17 years	Longitudinal	Interview 8 waves, 8 years	Physical violence	-	-	Initial and increasing harsh punishment (female only) Escalation in peer victimisation (female only)
Lavoie et al. (2002)	US N = 717 <sup>b</sup> 10-18 years	Longitudinal	Self-report questionnaire 6 waves, 8 years	Physical and psychological violence	-	-	Harsh parenting practices (male only) Low parental monitoring (male only) Antisocial behaviour (i.e. delinquency and substance abuse) (male only)
Lichter & McCloskey (2004)	US N = 208 13-21 years	Longitudinal prospective	Interview 2 waves, 7-9 years	Physical and sexual violence	Traditional beliefs about the family Gendered dating scripts	Traditional beliefs about the family Gendered dating scripts Acceptance of male-to-female dating violence	-
Makin-Byrd et al. (2013)	US N = 401 7-12 <sup>th</sup> grade	Prospective Longitudinal	Interview 12 waves, 12 years	Physical violence	Early adolescent aggressive-oppositional problems at home Adolescent aggressive-oppositional problems at school	Early adolescent aggressive-oppositional problems at home	Early adolescent aggressive-oppositional problems at home
McCloskey & Lichter (2003)	US N = 296 10-16 years	Longitudinal	Interviews 3 waves, 8 years	Physical violence	-	Depression; following exposure to marital violence and adolescent aggression toward peers (female only)	-

**Table 14.** Summary and Methods of ADVA Risk Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Risk	Perpetration Risk	Involvement Risk
Moretti et al. (2014)	US N = 139 <sup>c</sup> 13-24 years	Prospective Longitudinal	Self-report questionnaire 2 waves, 5 years	Physical and psychological violence	-	Exposure to maternal intimate partner violence (female only) High sensitivity to interpersonal rejection (female only)	-
O'leary and Smith Step (2003)	US N = 206 16.5 mean age	Longitudinal	Self-report questionnaire 2 waves, 3 months approx.	Physical and verbal dating violence	-	Own use of physical aggression predicted partner's use of physical aggression Partner's use of physical aggression predicted own use of physical aggression	-
Raiford et al. (2007)	US N = 522 <sup>d</sup> 14-18 years	Longitudinal	Self-report questionnaire and interview 2 waves, 1 years	Physical and verbal violence	Less understanding of healthy relationships (female only) Drug use (female only) Viewed X-rated movies (female only)	-	-
McNaughton-Reyes et al. (2014)	US N = 2455 8-12 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 4 waves, 2 years	Physical violence	-	Marijuana use (female only) Hard drug use (male only) Heavy alcohol use Family conflict Peer aggression Dating abuse victimisation	-
McNaughton-Reyes and Foshee (2013)	US N = 459 <sup>b</sup> 8 <sup>th</sup> -11/12 <sup>th</sup> grade	Longitudinal	6 waves, 4 years	Sexual dating violence	-	Physical dating aggression (and rape myth acceptance) Peer aggression and rape myth acceptance	-
Richards, Branch, & Ray (2014)	US N = 346 <sup>a</sup> 7-12 <sup>th</sup> grade	Longitudinal	In-home interview 2 waves, 1 year	Physical (P) and emotional (E) violence	Being of a race other than White (P) (female only)	Experience more family violence from parents (P) (female only) Being of a race other than white (r) (female only)	-
Schnurr & Lohman (2013)	US N = 765 <sup>e</sup> 10-20 years	Longitudinal	Interview 3 waves, 6 years	Physical violence	-	Drug and alcohol use Low parental monitoring Academic difficulties Involvement with antisocial peers Mother's experience of domestic violence (male and Hispanic female only) Externalizing behaviors (African-American females only) Depressive symptoms (male only)	-



**Table 15.** Summary and Methods of ADVA Risk Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Risk	Perpetration Risk	Involvement Risk
Schnurr & Lohman (2008)	US N = 765 <sup>e</sup> 10-20 years	Longitudinal	Interview 3 waves, 6 years	Physical violence	-	Early involvement with antisocial peers Increase in involvement with antisocial peers Early drug and alcohol use (female only; Hispanic male only) Low levels of hostility with father during early adolescence (female only) Externalizing behaviour problems (marginally) (female only) Living in stably two-parent home (African- American females) mother-child hostility (Hispanic females only) Harsh physical punishment from mothers (Hispanic females only)	-
Stocker & Richmond (2007)	US N = 110 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 3 years	Hostility (Psychological violence)	-	Hostility in parents marriages Hostility in friendships	-
Temple et al. (2013)	US N = 734 9-11 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical violence	-	Alcohol use Hard drug use Exposure to (mother-to-father) interparental violence Past dating violence perpetration	-
Tschann et al. (2009)	US N = 150 16-21 years	Longitudinal	Interviews 3 waves, 1 year	Physical and verbal violence	Interparental violence Dating violence victimisation at 6 months	Interparental violence Dating violence victimisation at 6 months	-
Ulloa, Martinez- Arango and Hokoda (2014)	US N = 140 13-18 years	Longitudinal	Self-report questionnaire 2 waves, 10 months	Physical dating violence	-	Attachment anxiety Depressive symptoms	-
Wolfe et al. (2004)	Canada N = 1317 14-19 years	Longitudinal	Self-report questionnaire 2 waves, 1 year	Physical, emotional, and threatening violence	-	Trauma-related symptoms (predicted emotional abuse for males) Trauma-related anger (predicted dating violence for females)	-

Note: a Female only sample; b Male only sample; c Females drawn from a juvenile detention centre; d African American female adolescents residing in high-risk social environments; e Primarily African-American and Hispanic low-income sample; f 603 opposite sex couples; g Age 16-17 years is based on mean age at wave 2 of 17 years

**Table 16.** Summary and Methods of ADVA Protective Factor Studies

Authors	Sample	Design	Instrument	Type of Violence	Victimisation Protector	Perpetration Protector
Foshee, McNaughton-Reyes, & Ennett (2010)	US N = 1666 8-10 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 2 waves, 6 months	Physical violence	-	Marijuana use (males only)
Foshee et al. (2013)	US N = 3412 7-12 <sup>th</sup> grade	Longitudinal	Self-report questionnaire 5 waves, 2.5 years	Physical violence	-	High quality friendships Friends with pro-social beliefs (female only)
McCloskey and Lichter (2003)	US N = 296 10-16 years	Longitudinal	Interview 3 waves, 8 years	Physical violence	-	Higher empathy
Richards, Branch and Ray (2014)	US N = 346 <sup>a</sup> 7-12 <sup>th</sup> grade	Longitudinal	In-home interview 2 waves, 1 year	Physical (P) and emotional (E) violence	Increased levels of social support from friends (E) (female only) Higher average grades (P) (female only)	Increased levels of social support from friends (P and E) (female only) Higher average grades (P) (female only)

Note: <sup>a</sup> Female only sample

**Table 17.** Summary and Methods for TAADVA Risk Correlate Studies

Authors	Sample	Design	Instrument	Victimisation Risk	Perpetration Risk	Involvement Risk
Cutbush et al. (2010)	US N = 4282 Mean age 14.3 years	Cross-sectional	Self-report questionnaire (Pearl 2007) Lifespan	Female sex Psychological abuse perpetration or victimisation Physical dating violence victimisation Sexual dating violence victimisation Stalking victimisation Peer aggression	Psychological dating abuse perpetration or victimisation Physical dating violence perpetration or victimisation Sexual dating violence perpetration or victimisation Stalking perpetration or victimisation Peer aggression	-
Cutbush et al. (2012)	US N = 1430 Mean age 12.3 years	Cross-sectional	Self-report questionnaire (Pearl 2007) Lifespan	Psychological dating abuse perpetration or victimisation Physical dating violence perpetration Sexual harassment victimisation	Psychological dating abuse perpetration Physical dating violence perpetration Sexual harassment perpetration	-
Dick et al. (2014)	US N = 1008 <sup>a</sup> 14-19 years	Cross-sectional	Self-report questionnaire Previous 3 months	-	-	Physical dating violence victimisation Sexual dating violence victimisation Stalking victimisation Peer aggression Contraceptive nonuse Reproductive coercion Physical dating violence Community violence exposure
Epstein-Ngo et al. (2014)	US N = 210 <sup>b</sup> 14-20 years	Cross-sectional	Self-report questionnaire Previous 2 months	-	-	-
Hinduja and Patchin (2011)	US N = 4400 11-18 years	Cross-sectional	Self-report questionnaire Lifespan	Being a victim of offline dating violence Being a victim of cyberbullying Sharing passwords with a significant other	Being a perpetrator of offline dating violence	-
Korchmaros et al. (2013)	US N = 615 14-19 years	Cross-sectional	Self-report questionnaire Previous 12 months	-	Perpetrating psychological dating aggression	-
Van Ouytsel et al. (2017)	US N = 705 Mean age 17.96 years	Cross-sectional	Self-report questionnaire (Pearl 2007) Previous 6 months	-	Having had sexual intercourse Using alcohol or drugs before having sex Poor physical health Substance use (alcohol and cigarettes and the misuse of over-the-counter and prescription medications) Bullying victimization or perpetration	-
Van Ouytsel, Ponnet, and Walrave (2016)	Belgium N = 466 16-22 years	Cross-sectional	Self-report questionnaire Previous 6 months	Engagement in online risk behaviour Length of the romantic relationship Engagement in sexting with the romantic partner Amount of social networking site use	-	-

**Table 18.** Summary and Methods for TAADVA Risk Correlate Studies

Authors	Sample	Design	Instrument	Victimisation Risk	Perpetration Risk	Involvement Risk
Van Ouytsel, Pomet, and Walrave (2017)	Belgium N = 466 16-22 years	Cross-sectional	Self-report questionnaire Previous	-	Being female Being older Perceived social norms of peers Endorsement of gender stereotypes Having observed intrusive controlling behaviors by the father	-
Peskin et al. (2017)	US N = 424 11-12 years	Cross-sectional	Self-report questionnaire (Pleard 2007) Lifespan	-	Norms for violence for boys against girls, Having a current boyfriend/girlfriend, and Participation in bullying perpetration	-
Zweig et al. (2013)	US N = 3745 12-18 years	Cross-sectional	Self-report questionnaire Previous 12 months	Sexual coercion Physical dating violence Psychological dating abuse Being a victim of cyberbullying	Sexual coercion Physical dating violence Psychological dating abuse Being an instigator of cyberbullying	-
Zweig et al. (2014a)	US N = 3745 12-18 years	Cross-sectional	Self-report questionnaire Previous 12 months	Being female Committing a greater variety of deviant behaviours Having had sexual activity in ones lifetime Having higher levels of depressive symptoms Having higher levels of anger/hostility Physical dating violence victimisation Psychological dating violence victimisation Sexual coercion victimisation	-	-