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A Network Approach to Examining Co-occurring Victimization and Perpetration in Dating Abuse Among a Nationally Representative Sample of US Adolescents

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A B S T R A C T

Purpose: Adolescent dating abuse (ADA) is a public health issue. Adolescents may experience victimization, engage in perpetration, or both. This study explores the co-occurrences of ADA victimization and perpetration, specifically examining which experiences and behaviors are most likely to co-occur and whether these vary by gender.

Methods: Data came from a nationally representative sample of 807 adolescents between the ages of 11 and 21 years in the United States who reported on at least one relationship in the past year through the Measure of Adolescent Relationship Harassment and Abuse (MARSHA). Using this sample, we applied network analysis to depict each ADA type as a “node” in a network where it was directly or indirectly associated with other types of victimization and perpetration. This network approach allowed for an empirical understanding of the patterns of victimization and perpetration co-occurrences.

Results: Findings demonstrate multiple associations between victimization and perpetration, which were present to a greater extent among male adolescents. The results reveal clusters of co-occurring victimization and perpetration within the domains of (1) cyber and emotional ADA and (2) physical and emotional ADA. A diverse range of victimization experiences (e.g., sexual victimization) did not typically co-occur with perpetration.

Discussion: The results suggest that ADA identification and specialized services require a nonbinary approach to address victims and perpetrators’ trauma and abusive behaviors. Detection of certain ADA types, especially controlling behaviors within the cyber domain, can help identify and prevent a wide range of other ADA types that tend to co-occur.

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IMPLICATIONS AND CONTRIBUTION

Study findings demonstrate that victimization and perpetration in adolescent dating abuse co-occur, especially regarding cyber adolescent dating abuse (ADA) and more so among male adolescents than female adolescents. These findings warrant early detection of cyber ADA, which may signal other ADA types, and comprehensive interventions that address both trauma and abusive behaviors.

Conflicts of interest: The authors have no conflicts of interest to declare.

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Adolescent dating abuse (ADA) is an ongoing social and public health concern [1–3] that encompasses a wide range of behaviors such as psychological (e.g., verbal threats or insults), physical (e.g., punching, kicking, or choking), and sexual abuse (forced sexual activity) [4]. Although prior empirical literature has identified many experiences that define ADA, there are notable

gaps in our understanding of the nature and degree to which ADA perpetration and victimization are co-occurring experiences.

Recent scholarship indicates that adolescents in abusive relationships are likely to experience victimization and engage in perpetration behaviors [3,5]. For example, a national study on ADA reported that 84% of victims also engaged in perpetration, and 92% of perpetrators also experienced victimization [6]. Some research indicates that specific types of ADA are associated with an increased likelihood of both perpetration and victimization. For example, research specifically looking at physical fighting has shown that adolescents are at a greater likelihood of experiencing both victimization and engaging in perpetrating [1]. However, much of the research on the co-occurrences of victimization and perpetration has centered on physical dating abuse, with less emphasis on psychological abuse and, until recently, little work on the use of digital methods to engage in aggression (e.g., texting, social media) [7–9].

Which specific experiences and behaviors tend to co-occur remains unclear. Most research has been limited to confirming that victimization and perpetration co-occur using measures of frequencies, associations, or prevalence rates [6,10] or by explaining the likelihood of being both a victim and perpetrator through regression techniques (see the systematic review by Jennings et al., 2017 [11]). However, they have not fully explicated *how* and *which* types of victimization and perpetration co-occur in some relationships. Identifying how and which victimizations and perpetrations co-occur can inform which ADA types can be gateways for prevention or intervention strategies as their detection may help identify and prevent other ADA experiences.

An additional dimension of ADA requiring more empirical work concerns gender differences [12,13]. Although research has identified the co-occurring nature of victimization and perpetration across genders [2,6,14], several studies found gender differences in ADA experiences [7,15,16]. For example, some research finds that boys and men are more likely to perpetrate ADA than girls and women, who are more likely to experience victimization [4]. However, this contradicts other literature finding that female adolescents more frequently report perpetrating psychological acts of aggression than male adolescents [2]. Such findings point to potential gender differences regarding ADA victimization and perpetration types that co-occur.

Although prior literature has confirmed that many adolescents in abusive dating relationships report both victimization and perpetration [3,5], our central purpose is to understand how and which different ADA victimization and perpetration types tend to co-occur and whether these vary by gender. As further described in the following sections, we apply network analytical techniques to examine co-occurrences of victimization and perpetration across genders.

A Network Approach

A network approach offers a conceptual and analytical alternative to further understand which and how ADA victimization and perpetration types co-occur. A network is a relational presentation of a set of actors (“nodes”) that are connected through a relation (“edge”). While network research in the social and behavioral sciences has often focused on relationships between persons, nodes can be virtually anything (e.g., individuals, organizations, or experiences) [17–19]. Analogous examples are networks of co-occurring psychopathological symptoms (e.g.,

sleep difficulties, hyperarousal, and memory loss) [19,20], traumatic experiences (e.g., psychological maltreatment, neglect, and domestic violence) [21,22], or criminal activity (e.g., domestic violence and violent offenses) [23]. Prior studies demonstrate that network analyses can reveal a complex system of interrelated symptoms, experiences, and behaviors while highlighting the significance of each to the overall system [21,22]. From a practical point of view, a network approach can guide early intervention efforts by identifying which nodes may signal the onset of other nodes that they are directly or indirectly connected to. This study conceptualizes distinct types of ADA victimization and perpetration as “nodes” that are part of a larger network of co-occurring ADA experiences. Within that network, a connection between any two different ADA types exists when multiple people have experienced both. Our approach differs from prior work that has begun to examine how often ADA types, or pairs of ADA types, occur [2,5] because we model both direct and indirect pathways between varying types of ADA victimization and perpetration. In doing so, we seek to inform prevention and intervention programs by identifying specific ADA types that could signal the onset of other types.

Methods

Data and sample characteristics

ADA victimization experiences and perpetration behaviors were assessed using the quantitative survey data collected from a cross-sectional sample of adolescents ages 11–21 years in the United States. These data were collected as part of a study to develop the Measure of Adolescent Relationship Harassment and Abuse (MARSHA), a comprehensive, reliable, and validated instrument that assesses ADA [24]. The Institutional Review Board (IRB) of NORC at the University of Chicago, who was responsible for the data collection, provided ethical approval for the study procedures. More detail on the data, recruitment procedures, and sample characteristics have been described in prior work [24]. Although the full sample included 1,257 adolescents, the present study was restricted to adolescents who had dating experiences with at least one person in the past year ($N = 888$) and completed the MARSHA instrument in full ($N = 813$). To determine whether there were demographic differences between the dating and nondating samples, we conducted a logistic regression with dating as the outcome (0 = nondating; 1 = dating) and demographic items as model covariates. Only age ($p < .001$) was significantly related to dating: the dating sample ($\bar{X} = 18.1$) was significantly older than the nondating sample ($\bar{X} = 15.9$). After listwise deletion of four adolescents with missing data on gender and two adolescents who reported all ADA experiences likely due to reflexive responding, the final analytical sample comprised 807 adolescents. Of those 807, 57.4% ($n = 463$) identified as female, 41.3% ($n = 333$) identified as male, and the remaining 1.4% ($n = 11$) identified as transgender, nonbinary, intersex, gender-queer, or other. Respondents were not asked about their sex at birth and could report on their gender identity. We, therefore, use the term “gender” instead of “sex”. In addition, the majority identified as heterosexual (81.2%, $n = 655$) compared with 18.2% ($n = 147$) who identified as homosexual or bisexual (Five adolescents did not report their sexual orientation).

Similar to what national prevalence studies on ADA have reported [6], 70.6% ($n = 570$) reported victimization, 60.0% ($n = 484$) reported perpetration, 75.1% ($n = 606$) reported *either*

All (N = 492 edges; D = 49.7%)

Female Sample (N = 374 edges; D = 37.8%)

Male Sample (N = 631 edges; D = 63.7%)

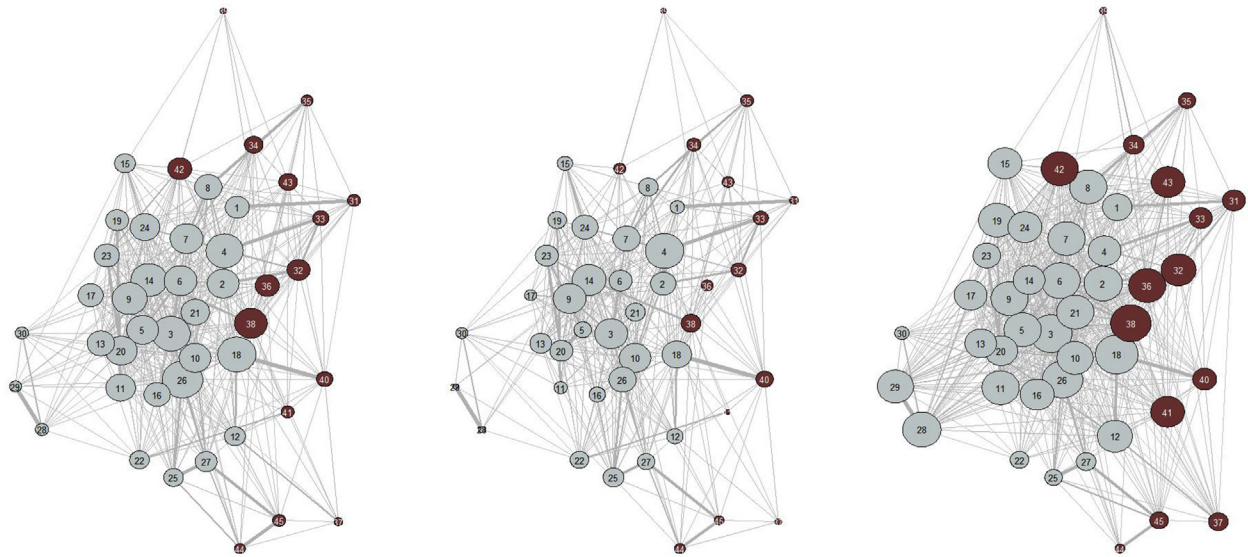


Figure 1. Adolescent dating abuse networks. *D* = density; *N* = number of edges. Nodes represent adolescent dating abuse (ADA) victimization experiences (light green) or perpetration behaviors (dark red). Edges represent the tetrachoric correlations between any two ADA types. The thicker the edge, the stronger the correlation (range: 0.500–0.915). Node size indicates node degree (i.e., number of connections with other nodes). The bigger the node, the larger the node degree centrality. See [Appendix 1](#) for all node labels by index.

victimization or perpetration, and 55.5% ($n = 448$) reported *both* victimization and perpetration. The percentages of adolescents reporting both victimization and perpetration were similar among female and male adolescents: 57.2% ($n = 265$) and 53.8% ($n = 179$), respectively ($\chi^2 = 0.816$, $p > .05$). On average, adolescents reported five victimization experiences ($\bar{X} = 4.99$; standard deviation (*SD*) = 6.81; range [0, 36]) and three perpetration behaviors ($\bar{X} = 2.81$; *SD* = 4.45; range [0, 35]).

Measures

MARSHA assesses victimization experiences and perpetration behaviors in past-year dating relationships. Although the MARSHA includes 39 victimization and 39 perpetration items, the present study analyzed 30 victimization and 15 perpetration items reported by at least 5% of each sample (i.e., the full sample, and the female and male samples separately). [Appendix 1](#) includes the original survey questions and overall frequency distributions for the 45 items by gender, indicating whether a certain type of ADA was experienced (1 = “Yes”). The reported victimization and perpetration items fall into the domains of physical, sexual, emotional, and cyber abuse.

Construction and analysis of ADA networks

We constructed ADA networks such that victimization experiences and perpetration behaviors are presented as “nodes.” The use of specific ADA items (e.g., continuously tracking or monitoring a partner through social media) as opposed to generic domains (e.g., “cyber”) was necessary to identify the specific experiences that feature in co-occurring ADA victimization and perpetration. A weighted edge between any two ADA items

existed when they were strongly correlated with one another (tetrachoric correlation ≥ 0.50). This threshold was a balance between obtaining networks that would not be too dense or too sparse to reveal structural co-occurrences. Considering the research on the gender parity in ADA experiences [7,15,16], we constructed ADA networks for the entire sample (including all gender identities) and separately for female and male adolescents. No separate networks could be estimated for other genders because of a small sample size ($n = 11$). To assess the robustness of our analyses, we compared our findings with the results from other network estimation methods, including more advanced methods such as regularized network models [25]. We discuss these methods and findings in [Appendix 2](#).

Networks were visualized and analyzed for overall direct and indirect connectivity patterns and clusters of co-occurring victimization and perpetration types using the following packages in R [26]: *psych* for calculating tetrachoric correlations [27] in addition to *network* [28], *igraph* [29], and *qgraph* [30] to construct, visualize, and analyze networks, respectively. Our analyses first describe the structure of the networks by reporting the density (i.e., the number of observed connections as a proportion of all connections that could have been present), average degree centralities (i.e., the average number of a node's connections), and geodesic distance (i.e., the “shortest path” between nodes). Next, we highlight which ADA types feature in co-occurring victimization and perpetration patterns by calculating what we call mixed-degree centralities, here defined as any node's number of victimization and perpetration connections as a percentage of all of that node's connections (e.g., a victimization node with a total of 10 connections, three of which are with perpetration nodes, has a mixed-degree centrality of three out of 10, equalling 30%). Finally, we examine the extent to

Table 1

Edge types as a percentage of all observed edges

	All	Female	Male
Edge type	%	%	%
Victimization-perpetration edges	23.58	20.05	35.02
Victimization-victimization edges	64.84	68.18	54.83
Perpetration-perpetration edges	11.59	11.76	10.14

which certain types of ADA experiences statistically tend to co-occur, beyond the level of dyads. To detect such clusters, we applied a Spinglass detection algorithm that maximizes within-cluster connections and minimalizes between-cluster connections. A Spinglass detection algorithm performs better on smaller networks than other algorithms [31]. Code and data have been made available through <https://osf.io/kdj26/>.

Results

Figure 1 presents the three ADA networks for the entire sample and for female and male adolescents using both victimization and perpetration items. The density (D) of these networks indicates that a substantive percentage of ADA types tend to co-occur: Between 37.8% and 63.7% of all possible co-occurrences that could have been present between all items were observed. The average degree centrality indicates that when ADA types co-occurred, they were connected to an average of 22 other types (range: 6–37). If not directly, any of the ADA experiences were indirectly connected through a pathway of a maximum of three other ADA experiences (“shortest paths”). To assess whether the observed network structures are nonrandom, we simulated 1,000 networks with the same number of nodes and edges as the observed networks but randomized the edges. Correlations between the random and observed networks were negligible (around 0).

A moderate correlation of $r = 0.34$ was observed between the network structures for male and female adolescents. A key difference between the two samples is that more pathways between victimization and perpetration were observed for male adolescents than for female adolescents. More specifically, Table 1 demonstrates that 35.02% of the connections in the ADA network for male adolescents represents a victimization-perpetration link. This was 20.05% in the ADA network for female adolescents and 23.58% in the ADA network for the full sample. Overall, and especially among female adolescents,

associations among victimization experiences, rather than between victimization and perpetration experiences, were most prevalent.

Table 2 presents the top-10 items that featured in the co-occurring ADA victimization and perpetration by calculating their mixed-degree centralities. ADA perpetration had higher mixed-degree centralities than ADA victimization. Specifically, adolescents engaging in specific types of ADA perpetration more frequently also experienced ADA victimization instead of other perpetrating behaviors. For example, when adolescents reported that they tried to get their partners’ friends to stop talking to their partner, they frequently also reported various victimization experiences within the domains of cyber and emotional ADA. Similarly, when adolescents reported that they had messaged partners constantly to monitor their behaviors, they also frequently reported experiencing cyber victimization themselves (see also Table 3). In other words, ADA perpetration more frequently co-occurred with victimization experiences rather than with other perpetration behaviors (but the opposite is not true for most victimization experiences). There were minor gender differences regarding the specific perpetrating behaviors that co-occurred with victimization experiences. As an illustration, when adolescents insulted their partner’s looks, male adolescents more frequently also reported experiencing ADA victimization than female adolescents.

Next, our cluster analyses further indicate which ADA types tend to co-occur. As demonstrated in Table 3 and Figure 2, three to four clusters were identified. Notwithstanding several differences between the female versus male samples, these clusters can broadly be categorized into (1) cyber ADA (victimization and perpetration) and emotional perpetration; (2) physical and emotional ADA (victimization and perpetration); and (3) a mix of ADA victimization experiences without a clear connectivity to perpetration behaviors. A fourth cluster distinguished between the female and male samples, specifically by separating sexual victimizations as more stand-alone experiences for female adolescents, whereas sexual victimization was grouped with various other emotional ADA victimization and perpetration for male adolescents.

To further assess the validity of our findings, we conducted sensitivity analyses using regularized network methods. While these methods are advanced network estimation techniques that produce sparsely network structures, we elected not to apply regularization methods as our main method because of the unsettled controversy surrounding integrating these methods

Table 2

Top-10 items with the highest mixed-degree centralities

All		Female		Male	
Variable	% Mixed degree	Variable	% Mixed degree	Variable	% Mixed degree
I tried to break their friendship	68.18	I tried to break their friendship	72.73	I tried to break their friendship	73.53
I hit them	60.00	I made them not break up with me	63.64	I insulted their looks	70.27
I used text to track them	58.82	I stopped talking to them	60.00	I used text to track them	68.42
I slapped them	58.33	I slapped them	55.56	I shouted at them	68.18
I looked through their devices	57.14	I used text to track them	53.85	I stopped talking to them	67.74
I insulted their looks	56.67	I hit them	50.00	I hit them	66.67
I stopped talking to them	50.00	I looked through their devices	50.00	I looked through their devices	65.62
I made them not break up with me	50.00	I asked them to show their phone	50.00	I made them not break up with me	64.71
I shouted at them	46.67	I insulted their looks	38.89	I stopped spending time with their family	64.52
I asked for passwords	41.67	I shouted at them	37.50	I hit the wall	61.11

Mixed-degree centralities represent a node’s sum of the connections between victimization and perpetration items as a percentage of all of that node’s connections.

Table 3

Clusters of co-occurring adolescent dating abuse victimization and/or perpetration

All			
Cyber and emotional—victimization and perpetration (white)	Physical and emotional—victimization and perpetration (gray)	Sexual, emotional, and cyber—victimization (black)	
They asked for passwords They looked through my devices They asked to show my phone They used apps to track me I asked for passwords I looked through their devices I asked to show their phone I used text to track them I used apps to track them I made them not break up with me I insulted their looks I joined outings without permission I stopped spending time with their family	They damaged my property They hit the wall They shouted at me They hit me They injured me They slapped me I hit the wall I shouted at them I stopped talking to them I hit them I slapped them	They sent scary texts They spread rumors online They used technology to scare They used text to track me They made me not break up with them They made me give money They insulted my identity They insulted my looks They joined outings without permission They lied about cheating to upset They threatened with self-harm They made me spend money They spread rumors about me They stalked me in real life They stopped talking to me They tried to break my friendships They stopped me from spending time with family They pressured me into sex acts They pressured me for nude photos They forced me to take nude photos I tried to break their friendships	
Female			
Cyber and emotional—victimization and perpetration (white)	Physical and emotional—victimization and perpetration (gray)	Cyber and emotional—victimization (red)	Sexual— victimization (black)
They asked for passwords	They hit the wall	They sent scary texts	They stopped talking to me
They looked through my devices	They shouted at me	They spread rumors online	They pressured me for nude photos
They asked to show my phone	They hit me	They used technology to scare	They forced me to take nude photos
They used apps to track me	They injured me	They used text to track me	They pressured me into sex acts
I asked for passwords I looked through their devices I asked to show their phone I used text to track them I joined outings without permission I stopped spending time with their family	They slapped me I shouted at them I stopped talking to them I made them not break up with me I hit the wall I insulted their looks I hit them I slapped them	They made me not break up with them They damaged my property They made me give money They insulted my identity They insulted my looks They joined outings without permission They lied about cheating to upset They threatened with self-harm They made me spend money They spread rumors about me They stalked me in real life They tried to break my friendships They stopped me spending time with family I tried to break their friendships	
Male			
Cyber and emotional—victimization and perpetration (white)	Physical, emotional, and cyber—victimization and perpetration (gray)	Cyber and emotional— victimization (red)	Sexual and emotional— victimization (black)
They asked for passwords	They sent scary texts	They spread rumors online	They stopped talking to me
They looked through my devices	They used technology to scare	They used text to track me	They made me not break up with them
They asked to show my phone They used apps to track me	They shouted at me	They damaged my property They made me give money	They hit the wall They joined outings without permission
I asked for passwords	They hit me	They insulted my identity	They stalked me in real life
I looked through their devices	They injured me	They insulted my looks	They pressured me for nude photos
(continued on next page)			

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Table 3

Continued

Male			
Cyber and emotional—victimization and perpetration (white)	Physical, emotional, and cyber—victimization and perpetration (gray)	Cyber and emotional—victimization (red)	Sexual and emotional—victimization (black)
I asked to show their phone	They slapped me	They lied about cheating to upset	They forced me to take nude photos
I used apps to track them	I hit the wall	They threatened with self-harm	They pressured me into sex acts
I shouted at them	I hit them	They made me spend money	I stopped talking to them
	I slapped them	They spread rumors about me	I stopped spending time with their family
		They tried to break my friendships	I used text to track them
		They stopped me from spending time with family	I made them not break up with me
		I insulted their looks	I joined outings without permission
		I tried to break their friendships	

Items were ordered by victimization and perpetration types.

within a network approach [32,33]. Nonetheless, the sensitivity analyses demonstrate substantial similarity with our main models. However, stronger partitioning of ADA experiences in more clusters and by domain was observed in the regularized models (Appendix 2).

Discussion

This implementation of network analysis has allowed for an empirical advancement in our understanding of how perpetration and victimization in adolescent dating relationships co-occur. While prior research has begun to describe and explain the existence of co-occurring victimization and perpetration in ADA [3,5,6], earlier studies have been unable to identify which specific experiences and behaviors tend to co-occur. The more granular view allotted by network analyses allowed us to understand how and which ADA types co-occurred with one another. We found a strong interrelatedness between ADA victimization and perpetration, especially featuring a link between various victimization experiences and perpetration behaviors related to ignoring, insulting, and controlling behaviors (e.g., stopped talking, insulting looks, tracking texts, and monitoring devices).

Consistent with prior work [24], we find that ADA experiences cluster by domain (i.e., physical, sexual, emotional, and digital/social). In particular, various forms of cyber victimization and perpetration co-occurred (directly or indirectly), suggesting that these ADA types may drive the overlap between ADA victimization and perpetration. These results support what prior research has begun to show, which is the importance of digital and social media in the experience of ADA among youth [7–9]. These victimization-perpetration co-occurrences may be so pronounced for cyber behaviors because of the relatively high social media usage among young people and the difficulty to monitor victimization and perpetration in digital spaces [34]. However, owing to the intersections among cyber, physical, and emotional ADA victimization and perpetration, it is clear that victimization-perpetration co-occurrences do not primarily occur within one domain.

In addition to unraveling a complex set of co-occurring ADA victimization and perpetration, our findings contribute to prior work on the gender parity in ADA experiences by identifying how such co-occurrences are different for male versus female adolescents [2,6,13–15]. This study finds that female adolescents experienced a greater set of victimization experiences, especially sexual victimization, without engaging in perpetrating behaviors. Conversely, male adolescents more frequently reported both victimization and perpetration. For both samples, perpetrating behaviors do not seem to occur as isolated experiences and frequently can be observed along with reported victimization experiences.

Both female and male samples shared similar patterns of co-occurring victimization and perpetration within cyber, physical, and emotional ADA. In particular, the evident co-occurrences of cyber ADA victimization and perpetration in both samples challenge old assumptions that the gender parity primarily occurs in traditional forms of abuse, such as physical, sexual, and serious emotional aggression [7,35,36]. This also highlights the importance of not deriving conclusions about ADA from research about adult partner violence that involves different developmental and interpersonal dynamics [35,37].

A few limitations of our analyses should be considered. First, no conclusions can be drawn about causal pathways among ADA experiences because of using cross-sectional data. Our purpose was to explore associations among ADA experiences rather than studying etiology. Second, certain types of ADA victimization and perpetration were experienced by only a small proportion of the sample (<5%) and, therefore, excluded from our analyses. However, this also meant that sexual perpetration behaviors were excluded from our analyses as female adolescents infrequently reported them. We sought to estimate networks for male and female adolescents using the same set of ADA experiences such that observed differences in item interrelatedness and network structure due to using different variables were avoided. Third, it is important to acknowledge the possibility of underreporting of victimization and perpetration, which would introduce bias when certain experiences are systematically underreported for a specific group of adolescents. It follows from these limitations

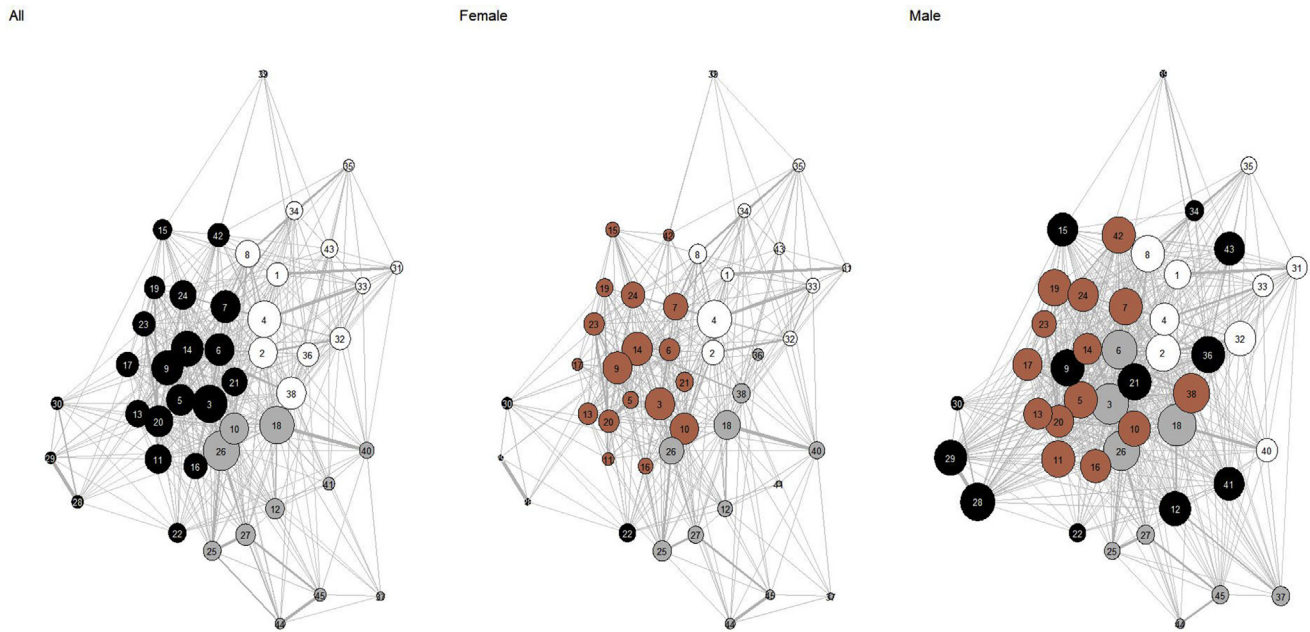


Figure 2. Clusters of co-occurring adolescent dating abuse (ADA) victimization and/or perpetration. For the purpose of comparability, these networks were visualized using the same spring layout and node and edge sizes as used for Figure 1. Colors represent the different clusters of ADA experiences (see Table 3). White = cyber and emotional victimization and perpetration; gray = physical and emotional victimization and perpetration (all, female); physical, emotional, and cyber victimization and perpetration (male); red = cyber and emotional victimization (male, female); black = sexual, emotional, and cyber victimization (all); sexual victimization (female); sexual and emotional victimization (male).

that future research should replicate and further advance our relational approach to examining ADA, particularly with longitudinal data, to understand potential causal mechanisms in ADA co-occurrences. Such research should also seek to understand co-occurring victimization and perpetration among different populations, as our and prior analyses have either centered on cis-gendered, heterosexual individuals, or do not address sexuality and gender identity, and have not fully captured the dynamics of LGBTQ+ people who experience ADA [6,7,38,39].

Research implications for the present study highlight the utility of implementing network analyses to ADA scholarship specifically and violence research generally. Findings here provide further credence to the idea that perpetration and victimization co-occur in potentially a more complex way than previously conceptualized and have helped gain insight into the differential gender dynamics of these experiences. Furthermore, the use of network analysis provides a path forward to address unanswered research questions that cannot be adequately evaluated with more conventional analytic approaches. A similar network approach may be applied to examine the co-occurrences of other forms of abuse and victimization such as (cyber-)bullying, homophobic teasing, or sexual harassment.

Future work should explore how pathways between ADA experiences may change as youth transition into adulthood, noting the importance of the developmental changes that occur during that period of life [35,37]. While some research reveals that certain forms of abuse become more pronounced over time, the mechanisms behind these patterns are still understudied [38,39]. As the present study indicates how and which sets of ADA experiences co-occur, scholars should endeavor to explore *why* these co-occurrences manifest in adolescent relationships. Specifically, more research is needed to understand why

perpetrators frequently experience victimization and if ADA victims engage in perpetrating behaviors as a means of retaliatory action or because of trauma responses to victimization histories [40]. Future studies may also examine the effects of experiencing a complex set of ADA victimization and perpetration on (mental) health outcomes to understand potential differences in the severity of experiences.

The present study's policy and treatment implications are particularly evident for schools, youth-serving organizations, and parents. Prevention and treatment programs need to proactively identify various other victimization and perpetration types beyond the ones adolescents may be presenting at the moment of evaluation. As such, the findings can guide early intervention strategies by identifying which ADA types may signal the onset of other types. Given the centrality of controlling and monitoring behaviors occurring in cyberspace, prevention and intervention efforts need to ensure that this aspect of relationship dynamics is central when working with young people. For example, when discussing healthy relationships, it needs to be emphasized how all forms of communications, including on social media, can contribute to the dynamics of intimacy and romantic relationships. In addition, parents and guardians need to be provided with the tools and education that help them monitor digital spaces. Furthermore, the findings underscore that a response model that focuses on either victimization or perpetration is unlikely to be effective. Instead, early signaling and trauma-informed interventions of ADA perpetration types that tend to co-occur with victimization can help detect and prevent other ADA experiences. Helping adolescents understand how those behaviors are connected and aiding in the development of techniques to address these unhealthy relationship aspects may improve prevention and intervention efforts.

Conclusion

This study extends existing literature surrounding co-occurring victimization and perpetration and the gender parity in these co-occurrences. Some of these issues have been well summarized in the literature examining the body of research on partner violence, gender parity, and measurement [13]. This study adds the importance of examining the structural co-occurrences between multiple types of ADA victimization and perpetration. From the findings in this study, ADA can be understood as a multi-faceted concern that warrants a nonbinary view of perpetration and victimization in research, policy, and practice. Specifically, we find that controlling and monitoring experiences and behaviors within the domains of cyber and emotional ADA centrally feature in the co-occurrences of victimization and perpetration. Interventions may be the most effective in preventing victimization and perpetration when focusing on these ADA types. Altogether, this work points to novel research directions within the field of ADA and highlights the practical utility of a network approach to examining ADA victimization and perpetration.

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Supplementary Data

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