Societal Factors and Teen Dating Violence: a Scoping Review

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Abstract



Purpose of Review This scoping review aims to identify quantitative research studies in the USA examining the association between societal factors and teen dating violence (TDV) victimization and/or perpetration.

Recent Findings Nine articles examined a range of societal factors including gender norms and gender equality; cultural norms that support aggression towards others; income inequality; and laws and policies. Factors were measured in states, neighborhoods, schools, and classes. While findings varied, certain societal factors may be associated with TDV.

Summary Findings highlight the relative lack of research examining associations between societal factors and TDV. This may be driven by limited data availability, complexity and cost of such research, and unclear definitions and measurement of societal factors. To decrease TDV and improve population-level adolescent health, more rigorous research is needed to inform the development of multilevel and structural interventions to address the outer layers of the social ecology.

Keywords Societal Factors · Dating Violence · Intimate Partner Violence · Adolescent · Teen

Introduction

Each year, approximately one in eight US high school students experiences physical or sexual dating violence, according to the Youth Risk Behavior Survey (YRBS) [1]. According to another nationally representative survey, more than 37% of 11- to 21-year-old youth who dated in the past year experienced at least one form of psychological abuse [2]. Experiencing teen dating violence (TDV) is associated with myriad negative health-related short and long-term consequences, including depression, anxiety, suicidal ideation, substance misuse, decreased academic achievement, subsequent intimate partner violence, and homicide [3–5]. Given

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that TDV is widespread and consequential, strategies to prevent its onset and progression are critically needed [6, 7].

Identifying risk and protective factors associated with TDV can guide the development of effective prevention and intervention strategies to reduce the burden of TDV. The social-ecological model of violence prevention, used by the Centers for Disease Control and Prevention (CDC), highlights four levels (individual, relationship, community, and societal) that contribute to violence victimization and perpetration [8]. To date, most TDV research has focused on individual- and relationship-level risk and protective factors, including demographic characteristics (e.g., age, gender), employment status, substance use, mental health status, attitudes accepting violence, history of child maltreatment, parental and family context, and peer relationship quality [9–12]. Recognizing the importance of community factors on TDV, such as neighborhood disorder and disadvantage [13], the last decade has witnessed accumulating research on these outer levels of social influence $[14 \bullet \bullet]$.

The outermost layer of the social-ecological model highlights broad societal factors, including social and cultural norms, which help create a climate in which violence is encouraged or inhibited [8]; however, gaps remain in identifying such factors [12, 15]. According to the CDC, societal level factors include traditional gender norms and gender inequality; cultural norms that support aggression toward others; societal income inequality; and health, educational, economic, and social policies or laws [16]. This outer layer is important for maximizing population impact of interventions. Indeed, interventions focused primarily on individual or relationship-level factors, without altering the social context in which TDV develops and occurs, are less likely to have broad effects [12, 17]. Societal factors are modifiable (unlike individual demographics), and interventions targeting these factors (e.g., through laws and policies) often have broader reach, rely less on sustained individual effort, and have the potential to address inequities [18, 19]. However, prior systematic reviews have identified that evidence is lacking for programs and strategies that address societal factors that aim to modify upstream determinants and root causes of TDV [20, 21•].

To inform the development of modifiable factors that may impact TDV, our goal in this scoping review is to identify and synthesize studies examining the association between societal factors and TDV. Importantly, we acknowledge that definitions and measurement of societal factors are not clear-cut. While the social-ecological model distinguishes between community and societal factors, in practice these terms are often used flexibly and interchangeably in the literature, sometimes conflating these levels. For community factors, the CDC includes conditions like neighborhood poverty, residential segregation and instability, and density of alcohol outlets [16]. However, these factors are influenced by, often overlap with, and are difficult to distinguish from societal factors, such as societal income inequality [22]. A further complication is that some studies assess societal factors (e.g., gender inequality, income inequality) using data that is collected in a neighborhood or community, which means that it could reasonably be considered a communitylevel factor as well as a societal one. Thus, while we focused this review solely on societal factors, we acknowledge the porous boundaries between what qualifies as a community vs. societal factor.

Methods

Search Strategy and Eligibility Criteria

We systematically searched the following databases for empirical peer-reviewed articles related to TDV published between January 1st, 2013, and December 31st, 2022: Pub-Med, Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycInfo, Web of Science, and Sociological Abstracts. To guide the development of search terms, we used the CDC's list of societal factors that are rooted in the social-ecological model (i.e., traditional gender norms and gender inequality; cultural norms that support aggression toward others; societal income inequality; and health, educational, economic, and social policies or laws) [16]. Following consultation with a research librarian, we included search terms related to concepts on teens/adolescents, dating/intimate partner violence, and societal factors (Supplemental Table 1). We also included a US search filter, which was modified from the University of Alabama at Birmingham hedges [23]. Finally, we searched the bibliographies of the included articles for additional references to screen. We conducted this scoping review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [24].

Article Screening and Selection

We imported all articles from the database searches into Covidence, a web-based collaboration software platform used for managing systematic and other literature reviews [25]. Two independent reviewers (AA and AR) first screened through titles and abstracts and then full texts. We included an article if it met the following criteria: quantitative data (i.e., no commentaries or solely qualitative studies), USbased and published/available in English (international studies could be included if US data was presented separately), published in the last 10 years (January 1st, 2013, to December 31st, 2022), peer-reviewed journal article (i.e., no conference abstracts, books, theses, dissertations, grey literature), TDV was the primary outcome (victimization, perpetration, or both), and at least one societal factor was the exposure (i.e., not an individual, relationship, or community factor based on the CDC framework).

To ensure a focus on dating violence as opposed to adult intimate partner violence, articles were included if 60% or more of the study population was 24 years old or younger, if the average age was below 24 years old, or if the analysis separated results for 24 years old or younger [13, 26]. If an article reported sexual violence, it was included only if the article specified whether the violence occurred in a relationship (i.e., from a boyfriend/girlfriend/partner). To distinguish between attitudes, norms, and beliefs held at the individual level, we only included attitudes and norms if measured at or aggregated to a collective group higher than the individual (i.e., collective class attitudes/norms, collective neighborhood attitudes/norms). In addition, to distinguish societal vs. community factors, we focused on income inequality (considered a societal factor by the CDC) and subsequently excluded exposures categorized in the CDC framework as community-level (e.g., related to neighborhood poverty, concentrated disadvantage, and residential instability) [16]. Disagreements in article inclusion were discussed among the two independent reviewers (AA and AR) and were resolved with the other authors when needed (SM, JT, and ER).

Data Extraction and Synthesis

After articles were screened for inclusion, two independent reviewers (AA and AR) extracted the following information for analyses: first author; year of publication; research question; hypotheses; setting; data source for the outcome; years of data collection; study population; study design; sample size; exposure variables; outcome variables; control variables; analysis method; major findings; study strengths; study limitations; CDC societal factor category; and diversity and equity notes. Disagreements in data extraction or quality ratings were resolved through a consensus between reviewers AA and AR. For presentation of the results, we summarized studies by societal factor category (i.e., traditional gender norms and gender inequality; cultural norms that support aggression toward others; societal income inequality; and health, educational, economic, and social policies or laws). The articles used differing terminology to capture TDV (e.g., adolescent relationship aggression, adolescent dating violence), but we use TDV throughout this article for consistency.

Results

Search Results

Overall, we identified 6936 articles through the database searches. Once imported into Covidence, 2698 articles were excluded as duplicates, which left a total of 4238 articles to screen. Of these, 4142 were excluded in the title and

Fig. 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram of search strategy abstract screening process, which left a total of 96 full texts to review. A total of 87 articles were excluded during the full-text review process, which left a total of nine articles for data extraction and analysis (Fig. 1). No additional eligible articles were found from the bibliographies of included articles.

Out of the nine articles, five were published in the years 2018–2023 and four were published in the years 2013–2017 (Table 1). Six articles involved cross-sectional studies, and three were prospective cohort (longitudinal) studies. Seven articles examined societal factors with data measured in states or neighborhoods, and two articles examined societal factors with data measured in schools or classes. Seven articles examined TDV perpetration (n=3) or victimization (n=4) only, while two articles examined both. The nine articles drew from four data sets measuring TDV (YRBS; National Survey on Teen Relationships and Intimate Violence (STRiV); Toledo Adolescent Relationships Study (TARS); and Multisite Violence Prevention Project (MVPP)). Figure 2 summarizes societal factors found to be associated with TDV in the nine included studies.

Traditional Gender Norms and Gender Inequality

Two articles examined a societal exposure related to *traditional* gender norms and gender inequality (Table 2) [27, 28]. Both of these studies examined gender inequality as the societal risk factor. However, one study investigated gender inequality measured in states as it related to past-year physical and sexual TDV victimization, and the other investigated gender inequality measured in neighborhoods as it related to past-year TDV

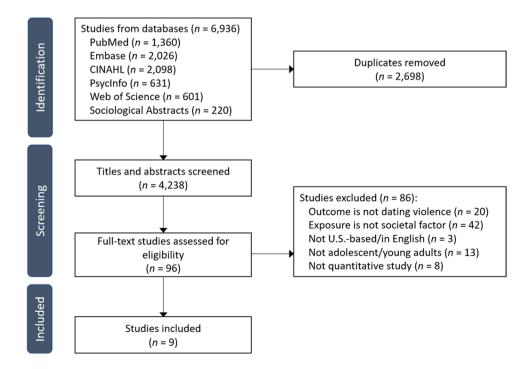
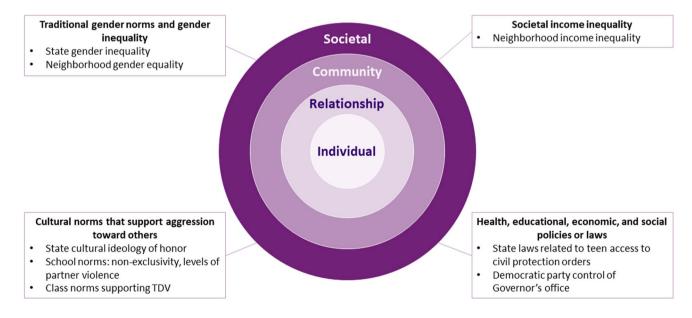


Table 1Peer-reviewed studiesassessing association betweensocietal factors and teen datingviolence (TDV)

Study characteristic	No. of studies (%) $n=9$
Year of publication	
2018–2023	5 (55.6)
2013–2017	4 (44.4)
Study design	
Cross-sectional	6 (66.7)
Prospective cohort (longitudinal)	3 (33.3)
Societal factor	
Traditional gender norms and gender inequality	2 (22.2)
Cultural norms that support aggression toward others	4 (44.4)
Societal income inequality	1 (11.1)
Health, educational, economic, and social policies or laws	2 (22.2)
Measurement of exposure	
State	4 (44.4)
Neighborhood	3 (33.3)
School	1 (11.1)
Class	1 (11.1)
TDV outcome	
Victimization only	4 (44.4)
Perpetration only	3 (33.3)
Both victimization and perpetration	2 (22.2)
TDV data source	
Youth Risk Behavior Survey (YRBS)	4 (44.4)
National Survey on Teen Relationships and Intimate Violence (STRiV)	2 (22.2)
Toledo Adolescent Relationships Study (TARS)	2 (22.2)
Multisite Violence Prevention Project (MVPP)	1 (11.1)



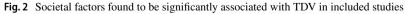


Table 2 Characteristics of stu	udies assessing a:	ssociation between s	Table 2 Characteristics of studies assessing association between societal factors and teen dating violence (TDV)	g violence (TDV)		
Reference	Setting	Study design	Population & sample size	Exposure variable(s)	TDV outcome variable(s) & data source	Major findings
Traditional gender norms and gender inequality Gressard et al. (2015) [27] USA (state)	nder inequality USA (state)	Cross-sectional	38 states for physical TDV and 31 states for sexual TDV 13,583 high school students	State gender inequality index based on maternal Physical and sexual mortality rate, adolescent birth rate, govern- TDV victimization ment representation, educational attainment, (past year) and labor force participation Youth Risk Behavio	Physical and sexual TDV victimization (past year) Youth Risk Behavior	State gender inequality was moderately correlated with female physical TDV victimization $(r=0.48, p=0.002)$. However,

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associations between neighborhood gender equality and male or female TDV perpetration or

stability and age, there were After adjusting for residential

> perpetration (current TDV victimization/

management/professional related employment Gender equality index based on female to male ratio of income level, college education, and

(recruited from a national

sample)

723 youth ages 10 to 18 household probability

Prospective cohort (longitudinal)

USA (neighbor-(pooq)

Okeke et al. (2019) [28]

Physical and sexual

no statistically significant stability, and residential

statistically significant associa-

p < 0.05). There was not a

tion with TDV victimization

for males in this statistical

model, or a statistically sig-nificant association with TDV

for females, adjusting for the

same variables

victimization or perpetration

perpetration reports for males, adjusting for residential stabiland race/ethnicity ($\beta = -0.56$,

ity, age, household income,

equality was associated with

lower likelihood of TDV

Higher neighborhood gender

victimization

and Intimate Violence

(STRiV)

Teen Relationships

National Survey on

or past year)

significant correlation between

there was no statistically

Survey (YRBS)

(9th through 12th grade)

state gender inequality and

female sexual TDV vic-

timization, male physical TDV

victimization, or male sexual

TDV victimization

Reference	Setting	Study design	Population & sample size	Exposure variable(s)	TDV outcome variable(s) & data source	Major findings
Cultural norms that support aggression toward others Brown et al. (2018) [29] USA (state)	usa (state) USA (state)	cross-sectional	 43 states for rape and 45 states for physical dating violence Non-Hispanic. White female high school students (9th through 12th grade) (unknown n of students) 	 43 states for rape and 45 states Honor state ways non-honor state for physical dating violence Non-Hispanic, White female high school students (9th through 12th grade) (unknown n of students) 	Physical TDV victimi- zation (past year) Youth Risk Behavior Survey (YRBS)	State honor status was associated with physical TDV (with the perpetrator not limited to a current "boyfriend"; $\beta = 0.38$, $p = 0.032$), adjusting for Gini index of income inequal- ity, religiosity, rurality, and economic deprivation However, when the perpetrator was limited to a current "boy- friend," there was no statisti- cally significant relationship between state honor status and physical TDV ($\beta = 0.30$, p = 0.073), but the relationship was in the hypothesized direc- tion (adjusting for Gini index of income inequality, religios- ity, rurality, and economic
Copp et al. (2019) [30]	Lucas County, Ohio, USA (neighborhood)	Cross-sectional	734 students in the 7th, 9th, and 11th grades across 85 neighborhoods	Neighborhood liberal dating norms	TDV perpetration (at any time with current/ most recent partner) Toledo Adolescent Relationships Study (TARS)	deprivation) No statistically significant association between neighbor- hood liberal dating norms and TDV perpetration, adjusting for neighborhood concentrated disadvantage, neighborhood subjective disorder, individual- level liberal dating norms, coercive parenting, socio- demographics, relationship sta- tus and relationship duration, children, and prior intimate partner violence exposure

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Reference	Setting	Study design	Population & sample size	Exposure variable(s)	TDV outcome variable(s) & data source	Major findings
Giordano et al. (2015) [31]	Lucas County, Ohio, USA (school)	Cross-sectional	955 students who dated in the 7th, 9th, and 11th grades across 32 schools	School dating norms and violence: non-exclusivity, friend violence, partner violence	TDV perpetration (at any time with current/ most recent partner) Toledo Adolescent Relationships Study (TARS)	High levels of school partner violence were associated with higher odds of TDV perpertation (OR = 4.24; $p < 0.01$). High levels of school non-exclusivity were indirectly associated with higher odds of TDV perperation (OR = 2.19; $p < 0.05$). Results were adjusted for parental violence, friends violence, socio-demographics, and relationship status. School violence toward friends was not statistically significantly associated with seports of TDV perpertation. There was not a statistically significant interaction with gender in the statistical models
Taylor et al. (2015) [32]	Durham, North Carolina, USA; Richmond, Virginia, USA; Chicago, Illinois, USA; and northeast Georgia, USA (class)	Prospective cohort (longitudinal)	2022 sixth grade students from 74 classes across 37 middle schools who were in dating relationships in the last 3 months at both waves 1 and 2	Class norms supporting dating violence Class refers to aggregated norms across students in the same grade and cohort within each school (based on whole sample, $n = 5417$, not just those who were in a dating relationship)	Psychological TDV perpetration; physical TDV perpetration (to a boyfriend/girlfriend in the last 3 months) Multisite Violence Prevention Project (MVPP)	Class norms supporting TDV significantly predicted changes in the average level of physical TDV perpetration, but in opposite directions for males and females (male: $\beta = 0.53$, $p < 0.001$; female: $\beta = -0.23$, $p < 0.001$.) That is, class norms supporting male TDV were associated with greater change in physical TDV perpetration, but class norms supporting female TDV were associated with less change in physical TDV perpetration. There was no statistically significant associated fixed wall are change in physical TDV were associated with less change in physical TDV perpetration. There was no statistically significant association between class norms and psychological TDV. Results adjusted for concentrated disadvantage and democranhics

Reference Study design Propulation & sample size Tyry outcome Major findings Sociental income inequality Instantion Insta							
1 USA (neighbor- hood) Prospective cohort 723 youth aged 10–18 at baseline who were daters (ongitudinal) Neighborhood income inequality (based on the programming for and provided TDV outcome responses (recruited from a rational household prob- ability sample) Physical and sexual for provided TDV outcome responses (recruited from a rational household prob- ability sample) F1 Physical and sexual programming for the responses (recruited from a rational household prob- ability sample) F1 1 USA (neighborhood income inequality (based on the responses (recruited from a rational household prob- ability sample) Paysian and sexual for the responses (recruited from a rational household prob- ability sample) F1 Physical and sexual for the responses (recruited from a rational household prob- gramming (recruited from a rational household prob- ability sample) F1 Physical and sexual for the rational household prob- gramming (recruited from a rational household prob- ability sample) F1 Physical for the rational household prob- gramming (recruited from a rational household prob- gramming (recruited from a rational household prob- ability sample) Physical from for the rational household prob- gramming (recruited from a rational household from a rational ho	Reference	Setting	Study design	Population & sample size	Exposure variable(s)	TDV outcome variable(s) & data source	Major findings
USA (neighbor- bood) (longindinal) basel 10–18 at Neighborhood income inequality (based on the Physical and sexual TPV vicinization/ basel TDV outcome responses (neuront responses (neuront from antional household prob- ability sample) antional household prob- ability sample) (STRIV) violance (Violance (STRIV) violance violance view) view view view view view view view view	Societal income inequality						
race/ethnicity	Okeke et al. (2022) [33]	USA (neighbor- hood)	Prospective cohort (longitudinal)	723 youth aged 10–18 at baseline who were daters and provided TDV outcome responses (recruited from a national household prob- ability sample)	Neighborhood income inequality (based on the Gini index score)	Physical and sexual TDV victimization/ perpetration (current or past year) National Survey on Teen Relationships and Intimate Violence (STRiV)	For both male and female par- ticipants, TDV perpetration/ victimization was comparable across neighborhood income inequality groups Females from families with higher household income, and living in neighborhoods with higher income inequality, had higher income inequality, had higher odds of TDV victimiza- tion (OR = 1.163, $p < 0.05$). Though, there was not the same statistically significant association for female TDV perpetration, or male TDV perpetration. These models adjusted for residential stability and socio- demographic variables inequality and TDV perpetra- tion or victimization for females or males (controlling for residential stability and socio-demographic variables) nor was there variation across racc/ethnicity groups

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Table 2 (continued)						
Reference	Setting	Study design	Population & sample size	Exposure variable(s)	TDV outcome variable(s) & data source	Major findings
Health, educational, economic, and social policies or laws	and social policies or	r laws				
Harland et al. (2021) [34]	USA (state)	Cross-sectional	36 states for physical dating violence; 30 for sexual dat- ing violence High school students (9th through 12th grade) (unknown n of students)	Presence of state law regarding TDV education in schools (used Westlaw to identify enacted laws; considered exposed if law was effective in state prior to January 1, 2015)	Physical and sexual TDV victimization (past year) Youth Risk Behavior Survey (YRBS)	No statistically significant association for TDV in gen- eral, or physical/sexual TDV separately, regardless of how long the TDV education law was in effect (adjusted OR for any TDV = 0.97 [95% CI: 0.88–1.06], PDV = 1.12 [95% CI: 0.95–1.33], SDV = 0.99 [0.91–1.08]; adjusting for student demographics and state covariates) No effect molfication by indi- vidual demographics
Hoefer et al. (2015) [35]	USA (state)	Cross-sectional	43 states (excluding NV, OR, PA, WA, MN, CA, and MO) High school students (9th through 12th grade) (unknown n of students)	 State policy strength related to teen access to civil protection orders; 2) Republican or Democratic party control of government (Governor, Senate, and House of Representa- tives) 	Physical TDV victimi- zation (past year) Youth Risk Behavior Survey (YRBS)	Stronger state policies related to teen access to civil protection orders (p =0.030) and Demo- cratic party control of the Governor's office (p =0.012) were associated with lower rates of physical TDV, with party control of the House of Representatives, party control of the Senate, and median state income as covariates No statistically significant asso- ciation between Democratic control of the Senate or House of Representatives and TDV

perpetration and victimization [27, 28]. State gender inequality was moderately correlated with state female physical TDV victimization [27]. However, there was no statistically significant correlation between state gender inequality and female sexual TDV victimization, male physical TDV victimization, or male sexual TDV victimization [27]. Higher neighborhood gender equality was associated with lower likelihood of TDV perpetration reports for males, adjusting for residential stability, age, household income, and race/ethnicity [28]. There were no other statistically significant associations between neighborhood gender inequality and TDV perpetration or victimization for females or males in the statistical model that adjusted for residential stability or in the statistical model that adjusted for residential stability in addition to age [28].

Cultural Norms that Support Aggression Toward Others

Four articles examined a societal exposure related to cultural norms that support aggression toward others [29–32]. One study investigated cultural ideology of honor measured in states (i.e., ideology where reputation is central and where men's status is derived from their adherence to honor-based social norms such as strength, bravery, and an intolerance for disrespect) as the societal risk factor and physical TDV (past year) as the outcome [29]. State honor status was associated with physical TDV (with the perpetrator not limited to a current "boyfriend") [29]. However, when the perpetrator was limited to a current "boyfriend," there was no statistically significant association between honor status and physical TDV, albeit the relationship was in the hypothesized direction [29]. One study found no statistically significant association between liberal dating norms measured in neighborhoods (i.e., endorsement of liberal dating attitudes such as acceptability of dating more than one person at a time) and TDV perpetration [30]. One study found that high levels of partner violence measured in schools were associated with higher odds of TDV perpetration [31]. In addition, non-exclusivity measured in schools (i.e., norms around infidelity behavior) contributed indirectly to the odds of TDV perpetration [31]. Violence toward friends measured in schools was not statistically significantly associated with reports of TDV perpetration [31]. All these associations were similar across gender [31]. In another study, norms supporting TDV measured in school classes significantly predicted changes in the average level of physical TDV perpetration, but in opposite directions for males and females [32]. That is, for class norms supporting male TDV were associated with greater change in physical TDV perpetration, but class norms supporting female TDV were associated with less change in physical TDV perpetration [32]. There was no statistically significant association between class norms and psychological TDV perpetration [32].

Societal Income Inequality

In the one article examining a societal exposure related to *societal income inequality*, the authors examined income inequality measured in neighborhoods as it relates to past-year TDV perpetration and victimization [33]. Females from families with higher household income, and living in neighborhoods with higher income inequality, had higher odds of TDV victimization, adjusting for residential stability and socio-demographic variables [33]. However, there was not the same statistically significant association for female TDV perpetration or male TDV perpetration or victimization [33]. There were no other statistically significant associations between neighborhood income inequality and TDV perpetration or victimization for females or males, controlling for residential stability or socio-demographic variables, nor was there variation across race/ethnicity groups [33].

Health, Educational, Economic, and Social Policies or Laws

Two articles examined a societal exposure related to *health*, *education*, *economic*, *and social policies or laws* [34, 35]. One study examined whether the presence of a law related to TDV education in schools had an association with past year TDV victimization and found no statistically significant association for overall TDV or physical TDV and sexual TDV separately, regardless of how long the TDV education law was in effect [34]. In another study, stronger state laws related to adolescent access to civil protection orders and Democratic party control of the Governor's office were associated with lower rates of past year TDV victimization [35]. However, there were no statistically significant associations for Democratic control of the state Senate or House of Representatives and past year TDV victimization [35].

Discussion

In the first scoping review of associations between societal factors and TDV, we highlight two salient findings. First, despite calls by federal agencies, there remains a dearth of studies assessing the role of the outer layers of social influence and their relation to TDV [6, 12, 14••]. Second, the nine studies that we reviewed found mixed support for various societal factors and their relation to TDV. This is likely attributable to the fact that societal factors vary widely in substance and how influential they are. We found at least some significant associations with TDV and factors in each category of traditional gender norms and gender inequality; cultural norms that support aggression toward others; societal income inequality; and health, educational, economic, and social policies or laws. While additional research is needed, these results point

to modifiable structural factors that may be promising targets of intervention for addressing the root causes of TDV and at the same time require less individual effort [36]. Modifying these factors can fall under the purview of legislation [37, 38]—for example, mandating education in schools or creating more inclusive laws that allow adolescents to access supports like civil protection orders [39, 40]. In addition, comprehensive policy approaches to violence prevention should include efforts from sectors outside of public health, including education, economics, the criminal-legal system, and health care [21, 41, 41]42]. For example, economic polices like the Earned Income Tax Credit may have wide-reaching benefits for violence prevention beyond the original goals of the policy [43]. Empirical research evaluating the effectiveness of such laws and policies on TDV is warranted. These types of upstream, structural interventions also have the potential to address TDV victimization and perpetration among socially marginalized populations, shaping the distribution of and access to resources and opportunities, possibly reducing inequities [19, 36].

The lack of research investigating societal factors and TDV may reflect the fact it is challenging to obtain data that permit inferences about this topic. First, as noted above, we found that definitions and measurement of societal factors are not clear-cut. While the CDC framework includes conditions like neighborhood poverty, residential segregation and instability, and density of alcohol outlets as community factors, the line between these and societal factors like income inequality is blurry [22, 44–46]. Complicating matters, some societal factors are measured by surveying people in specific neighborhoods, schools, or other community-level units, which means the factor could quite reasonably be considered both societal and community factors. In addition, as compared to TDV, more research exists on adult intimate partner violence and intimate partner homicide. This body of research has examined associations between intimate partner violence and factors such as economic recession, COVID-19 stay at home orders, firearm laws, county community coordinated response efforts, restorative justice policies, affordable housing policies, and eviction policies [47-53]. Future conceptual and empirical research should investigate whether some of these factors may also influence TDV.

Related to defining societal factors, we screened out many studies on factors measured at the individual-level that were indeed reflective of the same societal factors we included [22]. For example, there were studies on individual-level gender equitable attitudes [54], experiences of discrimination [55], and media influences [56] that reflect broader societal norms but were excluded due to being measured at the individual-level. This signals the need for additional measurement development around societal factors to capture the influences of such factors across levels [14••]. Multiple studies that examined societal factors measured in neighborhoods or school used aggregated individual-level data. Even though we

excluded studies that reflected an exposure measured solely at the individual-level, it is important to note that what we consider "societal factors" can be driven by individuals. Further, societal factors may interact with factors at other levels of the social-ecological model. In terms of interventions, those addressing societal factors can also interact synergistically with individual and relationship-level interventions [21•]. Future investigations should explore these interactions and elucidate differential effects of societal factors and interventions by individual, relationship, and community factors.

The nine included studies used data from only four data sources measuring TDV. In the USA, the YRBS is one of the only surveillance systems that includes questions about TDV and is representative by state. However, there are only two questions about TDV included in the YRBS, one about physical TDV and the other about sexual TDV, and both are focused on victimization rather than perpetration. TDV also encompasses many other behaviors such as psychological/emotional, cyber, and financial abuse, not captured in YRBS. Additionally, not all states include the TDV victimization questions, especially the sexual TDV question, which can lead to sparser data on this topic (and no data on perpetration). Of the 43 states that had representative data for the 2021 YRBS, 42 report data on physical TDV, and 33 report data on sexual TDV. The National Survey on Teen Relationships and Intimate Violence (STRiV), launched in 2013, was the first nationally representative study focused on teen relationships and dating violence [57]. STRiV contains data on census tracts, allowing for more granular neighborhood level analyses not possible from YRBS. In addition, another population-based, nationally representative study of TDV in adolescents ages 11 to 21 years old was used to establish psychometric properties of a new comprehensive measure of TDV, the MARSHA [58]. While these studies measure many dimensions of TDV victimization and perpetration (e.g., not available in YRBS), they are not representative by state, precluding state analyses of factors like state laws and policies that may be associated with TDV.

While this review was focused on quantitative studies, there have been a number of qualitative studies that identify societal factors beyond what we identified in the current review. For example, societal factors like sexism, racism, homophobia, and transphobia have been identified in qualitative studies as drivers of TDV [7, 59–62]. In addition to this qualitative research providing nuanced information on how individuals experience these societal factors and the pathways through which they may influence TDV, it may also be useful for informing the development of quantitative measures of these factors. In addition, many studies examined differences in TDV by identity groups (e.g., by gender, race, ethnicity, and/or sexual orientation identity) [63, 64], but did not directly measure the societal factors such as systems of oppression that contribute to those differences.

Results from this scoping review should be interpreted in the context of several limitations. First, we identified only a small number of articles, and the identified studies were highly heterogeneous, prohibiting any meta-analysis or conclusions about a category of societal factors. The included studies measured different types of TDV (e.g., physical, sexual, psychological) in different ways (e.g., past-year, lifetime with current partner) in addition to measuring a range of societal factors collected in different areas (e.g., school to state). While more research is needed at multiple geographic levels given that factors measured in states vs. schools, for example, may affect TDV through distinct mechanisms, quantifying the strength of evidence of the current literature is difficult. In addition, the majority of included studies were cross-sectional, limiting causal inference. Finally, null findings are likely underrepresented due to publication bias.

Conclusions

Perhaps most telling, this scoping review found a limited number of studies examining societal factors and TDV. Further studies are required to provide more conclusive evidence and to explore societal factors in greater depth-particularly longitudinal studies to examine causal pathways. Societal factors, such as gender and cultural norms, income inequality, and laws/policies, may be associated with TDV and are also often associated with other forms of violence. These may present opportunities for cross-cutting prevention of multiple forms of violence. A continued focus on factors associated with perpetration (in addition to victimization) is necessary for prevention of TDV. Our results suggest that addressing violence more holistically, rather than focusing on single outcomes, may be beneficial and can help get the social and political buy in by having multiple outcomes to appeal to different communities. Importantly, centering the experiences of communities most impacted by TDV is critical to identifying prevention strategies that are appropriate, effective, and sustainable [65]. While this review was focused on societal factors given that they are modifiable and may have the broad population reach [18], addressing TDV comprehensively will require action across all levels of the social ecology including attending to individual and relationship factors (e.g., through education, family strengthening) and community and societal factors (e.g., through laws, policies, social change).

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Data Availability Not applicable.

Declarations

Competing Interests The authors declare no competing interests.

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