A Meta-Analysis on the Link Between Young People's Social Environment, Socioeconomic Status, and Political Violence Outcomes

Sara Jahnke

Department of Health Promotion and Development, University of Bergen, Norway

Katharina Abad Borger

Department of Social Psychology, University of Trier, Trier, Germany

Lena Burgsmüller, Catalina Hoppe and Andreas Beelmann

Department of Research Synthesis, Intervention, and Evaluation, Friedrich-Schiller-University Jena, Jena, Germany

Abstract

Young people are particularly likely to engage in political violence, hold positive attitudes towards political violence, and show willingness to engage in political violence. The social environment in which young people are immersed is characterized by factors increasing and protecting against the risk of such outcomes. The present meta-analysis systematically summarizes the body of studies on the link between political violence outcomes and risk and protective variables in the following domains: a) parents and family (familial support, familial conflict, parental control, importance of family, parental violence), b) radical networks and peers (having friends with racist or violent attitudes, membership in political groups that oppose mainstream politics, general membership in a peer group), c) school (school attachment, school achievement), and d) socioeconomic status. A total of 288 effect sizes from 44 reference samples met the selection criteria. Findings were combined using two- and three-level meta-analytic models. Average effect sizes ranged between very small to small ($|r| = .03$ to $|r| = .26$), with the largest effect sizes detected for membership in a political group that opposes mainstream politics and having friends with racist or violent attitudes. The results are constrained by the low number of eligible samples and the significant level of heterogeneity for many of the meta-analyses.

Keywords

Extremism, radicalization, youth, meta-analysis

Author Note

Correspondence concerning this article should be addressed to Sara Jahnke, Department of Health Promotion and Development, University of Bergen, Norway, Årstadveien 17, 5009 Bergen. E-mail: sara.jahnke@uib.no

Introduction

In 2021, political violence has cost the lives of approximately 7,142 people worldwide, with most attacks occurring in the Middle East and Sub-Saharan Africa (Institute for Economics and Peace, 2022). At

the same time, rightwing and leftwing violence have overtaken religiously motivated violence in Europe (Institute for Economics and Peace, 2022). Similar to other antisocial behaviors, the propensity to engage in political violence peaks in adolescence and young adulthood (Urdal, 2006). For instance, Islamist terrorists are recruited primarily from young men between the ages of 18 and 32, with peak activity at age 19 or 20 (Klausen et al., 2016). Adolescents and young adults are also more inclined to hold positive attitudes towards political violence and express a willingness to engage in such acts than older individuals (Desmarais et al., 2017; Wolfowicz et al., 2020).

Adolescents' and young adults' social environment is likely to play a critical role in shaping their attitudes, intentions, and behaviors (Beelmann, 2020; Kuhn, 2004; Pauwels & Schils, 2016). Factors in young people's immediate social environment, such as parents and families, and their wider social environment, such as schools and neighborhoods, have been long investigated and discussed as proximal risk and protective factors for young people's engagement in violence (Lösel & Farrington, 2012), including political violence (Beelmann, 2020). Therefore, the present meta-analysis sought to synthesize the evidence base regarding links between political violence outcomes and factors in young people's social environment.

Definition of Radicalization and Political Violence Outcomes

Definitions of radicalization differ with regards to the importance they place on political violence outcomes (Jahnke et al., 2022), which is a necessary and/or sufficient criterion for radicalization for some theorists and a related, but not decisive element for others (Beelmann, 2020). Political violence refers to the "deliberate collective attempt to use force against people or objects for political reasons" (Sageman, 2017, p. 14). The focus of the present meta-analysis is limited to non-state actors and to a narrow understanding of violence as acts that are likely to physically hurt, injure, or kill a person, or threatening others with such acts. This means that other acts which are sometimes referred to as violence but that involve no threat to physical safety, such as psychological violence or humiliation, are not subsumed under this definition. Political violence is broadly characterized as rightwing, leftwing, or religiously motivated violence (e.g., Islamist violence), depending on the ideological positions of its pro-

ponents (Europol, 2022; Lösel & Bliesener, 2021). Beyond that, it is also studied in the context of sectarian struggles, like the Northern Ireland conflict, or specific political concerns like animal protection (Lösel & Bliesener, 2021). Similar to other recent literature reviews in this field (Jahnke et al., 2022; Lösel et al., 2018; Wolfowicz et al., 2020; Zych & Nasaescu, 2022), the present article focuses on political violence at the level of attitudes, willingness, and behaviors. These will be subsumed under the term political violence outcomes.

Adolescents' and Young Adults' Immediate and Wider Social Environment

The "impressionable years' hypothesis" posits that adolescence and early adulthood are a particularly sensitive period for political socialization (Sears & Brown, 2013). Following general models of youth problem behaviour (Jessor, 2016), political violence can be understood as the result of an unfavourable ratio of risk to protective factors, whereby different risk and protective factors can lead to similar developmental outcomes (equifinality) and the same risk and protective factors can lead to different outcomes (multifinality). Theories on violent radicalisation have accordingly assumed multi-causality as well as multiple developmental trajectories (Beelmann, 2020; McCauley & Moskalenko, 2008). In addition, individual developmental dynamics must be viewed as a constant exchange between individual characteristics and social contexts (Bronfenbrenner & Ceci, 1994). This applies to a particular extent to the political socialisation of young people, where the influence of the social environment is obvious.

Parents represent important agents in young people's immediate social environment. Parental support and parental behavioral control are two distinct dimensions of parenting (Kuppens & Ceulemans, 2019; Maccoby & Martin, 1983). While parental support involves behaviors that convey warmth and recognition to the child, parental behavioral control includes efforts to influence or manage the behavior of the child through monitoring and rule-setting (Beelmann et al., 2022; Hart et al., 2003; Pinquart, 2017). Parental support and behavioral control are typically linked to lower risk of antisocial behavior (Álvarez-García et al., 2016) and delinquency (Bean et al., 2006; Climent-Galarza et al., 2022; Murray & Farrington, 2010). Harsh parenting or parental violence, on the other hand, have been linked to child aggression and delinquency (Gershoff, 2002; Murray

& Farrington, 2010; Pinquart, 2017). According to Social Control Theory, the more a child feels attached to their family, the more likely they are going to feel attached to school, which in turn increases their likelihood to accept societal values and institutions (Gottfredson & Hirschi, 1990). Childhood attachment to their parents and school is consistently linked to prosocial developmental outcomes (Lösel & Farrington, 2012).

In addition, peers and peer groups have been identified as significant agents for the social and behavioral development, particularly in adolescence (e.g., Harris, 1995). While antisocial peers have been identified as a risk factor, non-deviant peers protect against antisocial development (Dishion & Tipsord, 2011; Granic & Patterson, 2006; Lösel & Farrington, 2012). The Significance Quest Theory argues that a lack of meaningful and important relationships can put an individual at risk of engaging in political violence in search of personal significance (Jasko et al., 2017; Kruglanski et al., 2014). Furthermore, many theories list contact with radicalized others as an important factor in the radicalization process (Kruglanski et al., 2019; McCauley & Moskalenko, 2008; Sageman, 2004), as parents, teachers, or peers who exhibit political violence outcomes themselves can transmit these to their children, students, or friends (Pels & de Ruyter, 2012). Finally, broader societal parameters such as socioeconomic status or social inequality have been confirmed as distal risk factors for young people's social and behavioral development (Reiss, 2013; Wilkinson & Pickett, 2009). These influences are usually mediated by proximal risk and protective factors (e.g., negative role models, parental violence, quality of educational institutions, burden neighborhoods, Cicchetti, 2016; Komro et al., 2011). In addition, approaches such as the problem behavior theory (Jessor, 2016) predict that a negative developmental context leads not only to higher proximal risks but also to fewer protective or promoting factors.

Recent Systematic Reviews

In recent years, several literature reviews on political violence outcomes or radicalization processes have been published with (Emmelkamp et al., 2020; Jahnke et al., 2022; Wolfowicz et al., 2020; Zych & Nasaescu, 2022) and without meta-analyses (e.g., Hassan et al., 2018; Lösel et al., 2018; Vergani et al., 2018). These papers summarize studies on factors that are associated with (risk factors) or protect against (protective factors) such outcomes. Personal

and individual risk factors included male sex and (in the case of Islamist violence) migration, personality traits like thrill seeking (Emmelkamp et al., 2020; Wolfowicz et al., 2020), experiences of discrimination, relative and symbolic deprivation (Jahnke et al., 2022), a criminal past, and overall negative life experiences (Vergani et al., 2018; Wolfowicz et al., 2020). While prior research on factors associated with political violence outcomes is mostly focused on the individual level (Desmarais et al., 2017), Zych and Nasaescu (2022) found evidence for political violence outcomes being a "family issue," with the highest effect sizes for parental ethnic socialization, extremist family members, and family conflicts. On the other hand, good school performance, as well as non-deviant peers and good relationships to others in their social environment may act as protective factors (Lösel et al., 2018). While these previous reviews detected some potential risk and protective factors, the evidence base for people's social environment was not always consistent. For instance, there was no significant effect for negative parenting in one systematic review (Emmelkamp et al., 2020), while another finds a protective effect for parental involvement (Wolfowicz et al., 2020), and a third reports a protective effect for family commitment and parental control, but no effect for familial violence (Zych & Nasaescu, 2022). All previous meta-analyses faced the challenge of having a restricted evidence base. Previous meta-analyses on school and peer domains were based on particularly few studies: four to six for school attachment and achievement, and three to seven for deviant or negative peers (Wolfowicz et al., 2019; Emmelkamp et al., 2020).

The Present Meta-Analysis

The purpose of this meta-analysis is to synthesize the evidence base on the link between political violence outcomes and adolescents' and young adults' social environment (i.e., parents and family, radical networks and peers, school, and socioeconomic status). This includes individuals transitioning from childhood to adulthood between ages 10 and 19, and young adults below age 30. Previous meta-analyses typically mixed bivariate (unadjusted) effect sizes and effect sizes adjusted for covariates (while preferring the former over the latter, Emmelkamp et al., 2020; Wolfowicz et al., 2020), as well as effect sizes from cross-sectional and longitudinal designs (Emmelkamp et al., 2020; Zych & Nasaescu, 2022). While this practice increases the available evidence

base, it makes it more challenging to interpret the overall effect. In contrast, the present meta-analysis will only include bivariate effect sizes (requested from original authors, if necessary), and a separate discussion of cross-sectional and longitudinal evidence. Furthermore, extensive searches will be conducted to identify unpublished studies and studies in multiple languages besides English.

Method

Inclusion Criteria

Eligible studies needed to (1) quantify the relationship between one of the variables in Table S1 and a political violence outcome and provide bivariate effect sizes, (2) be based on a sample with a mean age below 30 years, (3) be published in English, German, French, Italian, Norwegian, Swedish, Danish, Dutch, Spanish, or Hebrew. If no bivariate effect sizes were available for studies published after 1990, we attempted to retrieve them from the authors. The search strategy included both traditional (i.e., books, book chapters, published articles) and non-traditional sources (i.e., theses, reports, pre-prints/post-prints).

Literature Search and Identification of Eligible Studies

Note that the present research is based in part on searches conducted for a meta-analysis on other factors associated with political violence outcomes (Jahnke et al., 2022). First, a literature search was conducted between 2017 and 2020, considering all publications up until 31st December 2019 (see flow chart in Figure 1 for more information and a list of included databases). The search strings contained the keywords *radical**, *extremism*, as well as combinations of terms used to describe political ideologies (like right-wing) and words relating to violence or violent political strategies and the word *support* (see Table S2, Supplemental Material). SJ scanned all articles in the literature search, while KAB scanned 50% and another trained member of the research team the remaining 50% of the database. Conflicting decisions between SJ and the second group were resolved in team discussions. This led to the creation of a large collection of research documents about political violence outcomes among young people. Drawing on this study pool, LB and CH independently screened for studies fulfilling eligibility criteria. Disagreement

between raters was resolved by team consensus (LB, CH, and SJ). Second, the research team used the reference lists of all studies identified in previous steps to detect further relevant studies. Third, a forward citation search was employed to identify studies that cite already included studies. Fourth, researchers in the field were contacted to ask for missing information or materials (e.g., bivariate associations, further information about study materials), as well as grey literature.
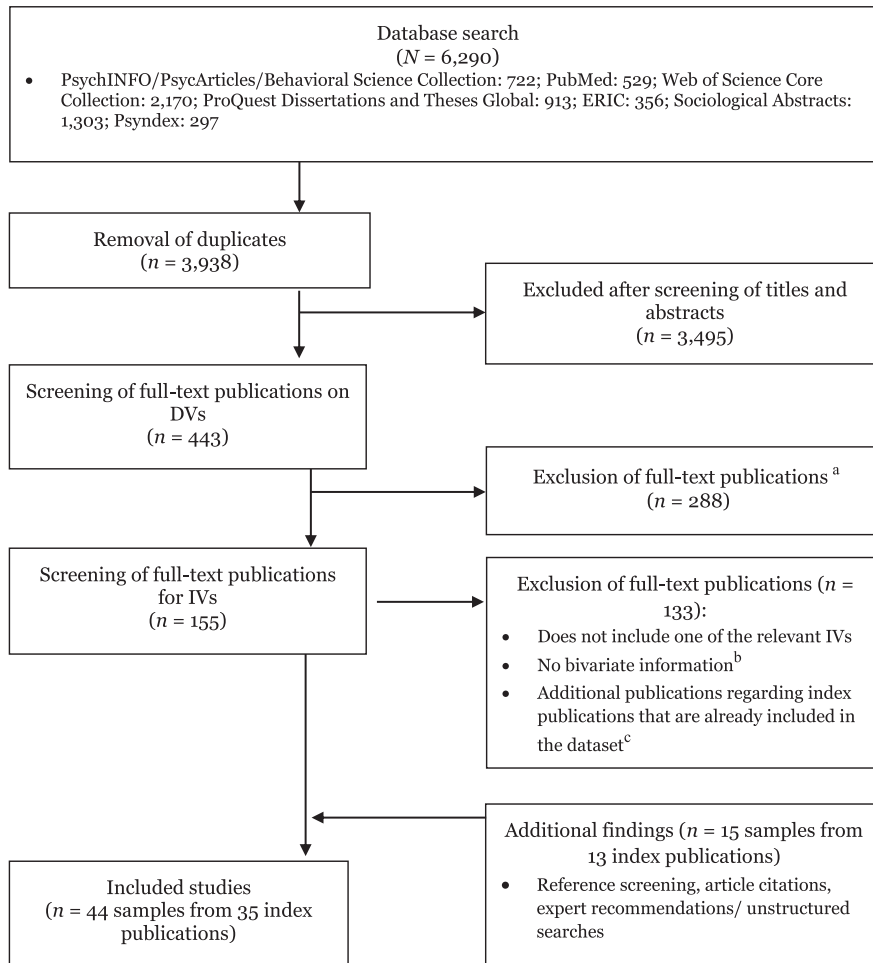
Coding Process

The coding was conducted by LB, CH, SJ, and KAB. As the most frequently reported effect size in the primary studies, Pearson's r was chosen as the basis of our meta-analysis. When Pearson's r was not available, it was estimated based on point-biserial correlations, Spearman's rho, or Phi coefficients. If it was available only in the form of contingency tables or as means and standard deviations, Wilson's (2001) Practical Meta-Analysis Effect Size Calculator was used to transform the values to Pearson's r. In one instance, an effect size was coded as zero based on the text describing a lack of association.

Computation of Effect sizes

The analyses were conducted in R (version 4.2.1) with the *metafor* package (Viechtbauer, 2010). The dataset and syntax are available on OSF (Jahnke, 2023). All effect sizes were transformed to z scores. Corresponding sampling variances were calculated based on large sample approximation. As many studies contributed more than one effect size based on the same participants, the assumption of independent effect sizes was violated (Assink & Wibbelink, 2016). To account for this dependency, a three-level meta-analytic model (level 1: sampling variance, level 2: within-study variance, level 3: between-study variance) was applied on z-scores and sampling variances (as described in Assink & Wibbelink, 2016). For analyses with independent effect sizes, we calculated random-effects models. All models were fitted with restricted maximum likelihood estimation. The Knapp Hartung (2003) modification was applied to the calculation of p values, confidence intervals, and standard errors. The variance distribution across levels (I^2) was assessed with the formula provided by Cheung (2014), as described in Harrer et al. (2019). For meta-analyses based on more than 10 samples, sources of heterogeneity were explored via

Figure 1

Flow Chart


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┌─────────────────────────────────────────────────────────┐
│                    Database search                       │
│                     (N = 6,290)                          │
│  • PsychINFO/PsycArticles/Behavioral Science Collection: │
│    722; PubMed: 529; Web of Science Core Collection:     │
│    2,170; ProQuest Dissertations and Theses Global: 913; │
│    ERIC: 356; Sociological Abstracts: 1,303; Psyndex: 297│
└─────────────────────────────────────────────────────────┘
                          │
┌──────────────────────────────┐
│    Removal of duplicates     │
│       (n = 3,938)            │──────────→ ┌──────────────────────────────┐
└──────────────────────────────┘           │ Excluded after screening of  │
                          │                 │    titles and abstracts      │
                          │                 │       (n = 3,495)            │
┌──────────────────────────────┐           └──────────────────────────────┘
│ Screening of full-text       │
│ publications on DVs          │──────────→ ┌──────────────────────────────┐
│       (n = 443)              │           │ Exclusion of full-text       │
└──────────────────────────────┘           │ publications ᵃ (n = 288)     │
                          │                 └──────────────────────────────┘
┌──────────────────────────────┐
│ Screening of full-text       │
│ publications for IVs         │──────────→ ┌──────────────────────────────┐
│       (n = 155)              │           │ Exclusion of full-text       │
└──────────────────────────────┘           │ publications (n = 133)       │
                          │                 └──────────────────────────────┘
                          │                 ┌──────────────────────────────┐
┌──────────────────────────────┐  ←──────── │ Additional findings          │
│    Included studies          │           │ (n = 15 samples)             │
│ (n = 44 samples)             │           └──────────────────────────────┘
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Note. [a] The present study relied on a database of previously screened literature, where sources had been excluded that a) were not available, b) did not contain quantitative data, c) where participants had a higher mean age than 30, d) were experimental studies on death salience or identity threat, e) included only macro-level analyses or no predictors, and/or f) were not conducted in one of the 10 pre-specified languages (see Jahnke et al., 2022). [b] When bivariate information was missing for more recent studies (1990 and later) and author contact data was available, study authors were contacted to retrieve missing information. In response, we received bivariate correlations for 16 samples from 12 index publications (see also Table S5, Supplemental Material). [c] Some effect sizes in our meta-analysis were retrieved from additional publications, not included in the index publication (see Table S5, Supplemental Material for list of all publications).

meta-regression (Higgins et al., 2022). For meta-regressions with categorical moderators, each level had to include at least five effect-sizes.

Bias Assessment

Studies with small sample size are more likely to be published depending on the size and significance of the results compared to studies with larger sample sizes. Funnel plot-based methods to detect small sample effects are likely to be misleading if effect sizes are highly heterogeneous or if the number of studies is small (Furuya-Kanamori et al., 2020). Therefore, small-study effects were only investigated for meta-analyses based on more than 20 independent samples. Besides publication bias, there are a number of other possible explanations of small-study effects (Sterne et al., 2011). The Egger's test was conducted using

the standard errors of the effect sizes as moderators in a meta-regression.

Results

Sample Characteristics

We identified 44 cross-sectional independent samples drawn from 35 index publications, as some publications reported results for multiple studies or samples (e.g., separate results for boys and girls). Descriptions of all included samples are listed in Supplementary Materials, Table S3. Summary descriptive features are presented in Table 1.

Effect Estimates

As only five studies with a longitudinal design were identified, only effect-sizes based on cross-sectional data were synthesized. For 16 samples, we were able to retrieve (previously unpublished) bivariate effect sizes from the authors. Average effect size estimates (Pearson's r) are presented in Table 2. For the Parents and Family domain, average effect sizes ranged between |.06| and |.13| (all significant with the exception of familial conflict). For Radical Networks and Peers, the effect sizes ranged between .17 and .26 (all significant). For School, effect sizes ranged between -.08 and -.13 (all significant). The largest effect sizes were identified for friends with racist or violent attitudes and membership in political group that opposes mainstream politics. Socioeconomic status was negatively related to political violence outcomes, with a very small effect size ($r = -.03$). A substantial portion of the total variation was associated with either level 2 or level 3 for all meta-analyses (combined $I^2 > .37$ for importance of family, combined I^2 for remaining meta-analyses >.74). Forest plots for all meta-analyses are depicted in Figures S1-S11 in the Supplementary Materials.

Assessment of Bias

A visual inspection of the Funnel plot for socioeconomic status (as the only variable with > 20 independent samples) indicated that smaller samples were more likely to find a negative association (see Figure S12, Supplementary Materials). Yet, the standard error did not significantly predict the effect size outcome ($z = -.28$, $SE = .48$, $p = .551$, Egger's test), which speaks against small-study effects.

Table 1
Characteristics of the Included Samples

Descriptive Features	No. of samples
Country of Sample	
Europe	
Belgium	2
Czech Republic	1
Germany	23
Spain	3
Sweden	1
Switzerland	1
Ukraine	1
North America	
Canada	1
United States	1
Asia	
Hong-Kong	1
Israel	3
Lebanon	3
Pakistan	1
Palestine	2
Context/setting of data collection	
University	4
School	27
Online	3
Other or mixed	3
Public places	1
Clinical	1
No/missing/incomplete information	5
Language of Publication	
English	25
German	19
Group status[a]	
Higher status group	33
Lower status group	11
Ideology	
General Political Violence	22
Rightwing Violence	11
Islamist Violence	8
Other Intergroup Violence	8
Leftwing Violence	8
Level of violence	
Attitudes	23
Willingness	16
Actual behavior	21
Type of publication	
Peer-reviewed journal	29
Book or book chapter	4
Report	11

Note.[a]A lower status was assumed for all samples composed entirely or predominantly of people from ethnic or religious minorities, as well as for Palestinians in the context of the Israel-Palestine conflict.

Moderator Analysis

Results for moderator analysis are displayed in Table S4, Supplementary Materials. Only four out of 45 regression slopes were significant (not counting intercepts) and all effects were very small ($z \leq .06$). For ideology, only one regression slope was significant.

Table 2
Overall Effect Sizes Based on Three-Level Meta-Analyses

Domains and variables	r (95% CI)	n	k	p	Variance distribution in %		
					Level 1	Level 2	Level 3
Parents and Family							
Familial support	-.09 [-.11, -.08]	38	19	<.001	22.03	77.97	0.00
Familial conflict[a]	.06 [-.04, .15]	5	0	.263	–	–	–
Parental control	-.07 [-.10, -.05]	33	10	<.001	15.67	84.33	0.00
Importance of family	-.13 [-.21, -.05]	7	4	.007	62.91	0.00	37.09
Parental violence	.09 [.07, .11]	41	12	<.001	19.93	57.66	22.41
Radical Networks and Peers							
Friends with racist or violent attitudes	.25 [.14, .36]	7	5	.001	6.93	93.07	0.00
Membership in political group that opposes mainstream politics	.26 [.13, .37]	7	4	.002	2.53	97.47	0.00
General membership in peer group	.17 [.01, .33]	4	3	.046	13.24	0.00	86.76
School							
School attachment	-.13 [-.15, -.11]	51	14	<.001	7.08	86.24	6.69
School achievement	-.08 [-.11, -.04]	25	12	<.001	7.31	92.69	0.00
Socioeconomic Status	-.03 [-.05, -.02]	70	27	<.001	25.84	48.21	25.95

n = number of effect sizes, k = number of independent samples. [a] a two-level random effects model was fitted because all effect sizes were independent. I^2 = 95.31%.

The protective effect of family support was weaker for other ethnic, national, or religious violence (vs. unspecific violence, see forest plot for family support in Figure S1, Supplemental Materials for information about how effect sizes were categorized with relation to ideology). None of the effect sizes was moderated by level of violence. Yet, because of the large number of tests and their exploratory nature as well as the high within-study heterogeneity, these findings must be interpreted with caution.

Longitudinal Findings

All studies but one (Boehnke et al., 1998) described in this section provided cross-sectional information alongside longitudinal data and are listed in Table S1, Supplementary Materials A. Significant links were identified between involvement in family decisions one year earlier and illegal political activity for older (β = -.19), but not younger adolescents (β = -.02; Glatz & Dahl, 2016), and for parental involvement at age 15 and violent extremist attitudes at age 17 (r = -.18, Nivette et al., 2017). Parental monitoring at age 15 was linked to a lower risk for violent extremist attitudes among boys and girls at age 17 (r = -.19 and -.14, respectively), while corporal punishment only predicted a higher risk for boys (r = .12), but not girls (r = .06; Ribeaud et al., 2017, based on the same sample as Nivette et al., 2017). The same study also found that a good relationship with the teacher predicted weaker violent extremist attitudes for girls (r = -.09) and boys (r = .15). Another study showed that deviant peer group at age 14-17 predicted

non-normative political participation 1.5 years later, while relationships with parents (β = -.02), teachers (β = -.04), and classmates (β = .12) did not (Šerek et al., 2018). Finally, for socioeconomic status, monthly net income assessed one year prior did not predict Sympathy for Radical Action among students (r = -.09, Simon et al., 2013). Note that while Kuhn (2004) and Schmid (2012) used data from different waves of a longitudinal survey (i.e., Brandenburg Longitudinal Study on Political Socialization of Youths, conducted between 1996 and 1998), we could not find results linking risk or protective variables to political violence outcomes from different waves of data collection.

Boehnke et al. (1998) collected data from student sample (N = 932) from East and West-Berlin in 1992 (when students were in the 7th and 9th grade) and 1993 (when they were in 8th and 10th grade). There was a significant negative link between educational achievement (r = -.09) and approval of rightwing political violence (right-wing extremism, based on the item "Smash the leftists") one year later, while parental control (r = -.04) did not significantly predict this outcome.

Hence, the available longitudinal evidence confirms the findings from the meta-analyses on cross-sectional data for the following variables: friends with racist or violent attitudes, school attachment, and school achievement. Although the effect sizes indicated the expected trends, the relationships between familial support, parental control, general peer group membership, socioeconomic status, and political violence outcomes did not consistently yield

statistically significant effects. These findings should be interpreted with caution, as they are based on only one to four independent samples per variable.

Discussion

Eleven meta-analyses were conducted on 288 effect sizes from 44 independent samples. We found substantial heterogeneity for all studied factors, with the exception of importance of family. The effect sizes varied between very small and small, according to common conventions (Cohen, 1992). This is in line with other recent meta-analyses on risk or protective factors associated with political violence outcomes (Emmelkamp et al., 2020; Jahnke et al., 2022; Zych & Nasaescu, 2022). It also corresponds with a developmentally informed perspective on political violence outcomes, particularly the concepts of equifinality and multifinality. In other words, a complex phenomenon like political violence outcomes can only be explained within a wider framework that takes into account multiple risk and protective factors at the level of the individual, the immediate and wider social environment, and the broader political context. While the meta-analyses were conducted only on cross-sectional data, the findings corresponded with the longitudinal studies that were identified.

At the level of parental and family factors, family support, parental control, importance of family, and parental violence emerged as significant factors associated with political violence outcomes in our meta-analyses. With regards to overall effect sizes as well as the direction of effects, the present findings confirm the results of previously published meta-analyses (Emmelkamp et al., 2020; Wolfowicz et al., 2020; Zych & Nasaescu, 2022). For radical networks, peers, and school, the present meta-analyses discovered the highest overall effect sizes for membership in political groups that are known for opposing mainstream politics and for having friends with racist or violent attitudes. This is consistent with a number of previous studies and meta-analyses confirming a small to medium-sized link between (legal) activism and political violence outcomes (Emmelkamp et al., 2020; Moskalenko & McCauley, 2009; Wolfowicz et al., 2020). Against expectations, being a member of a friend group was related to *higher* political violence outcomes. However, note that most of the studies we found did not assess whether the peer group was nonviolent. More research is needed to determine whether membership in nondeviant groups, as well as friendships to nondeviant individuals, can act as a

protective factor against political violence outcomes, as suggested in previous literature reviews (Lösel et al., 2018). In general, we noted an absence of studies on radical network and peer factors. This is unfortunate, as adolescence and young adulthood marks a time in a person's life when they are particularly vulnerable to peer influences on the one hand, and at the same time gaining more control over whom they affiliate with (Harris, 1995). Higher school attachment (Lösel et al., 2018; Wolfowicz et al., 2020) and/or achievement (Emmelkamp et al., 2020; Lösel et al., 2018) have also been proposed as protective factors in meta-analyses. The present research detected very small to small effects for these factors based on a larger number of samples/studies. A very small link was detected between socioeconomic status and political violence outcomes, which is again consistent with previous meta-analyses (Wolfowicz et al., 2020; Zych & Nasaescu, 2022).

Limitations

Notwithstanding the extensive search of traditional and grey literature, the number of samples was not high enough to allow for assessing small study effects for most of the studied variables. Nonetheless, we are confident that the risk for publication bias in our sample was rather low, as the author team was highly successful in sourcing gray literature (particularly from reports published in German). Only one of the two significant moderating effects of peer-review status was indicative of publication bias: Peer-reviewed publications showed a lower protective effect than non-peer reviewed publications for the variable school attachment and a higher protective effect for the variable socioeconomic status. For variables where moderator analyses were feasible, we only detected four significant moderation effects among many tests. As political violence outcomes were oftentimes assessed with ad-hoc self-report scales with questionable psychometric validity, it is important for future research to assess political violence outcomes with more established scales like the Activism-Radicalism-Intentions Scale (Moskalenko & McCauley, 2009).

Outlook and Implications

Establishing risk and protective factors for outcomes of political violence helps researchers, practitioners, and policy makers in developing and applying effective prevention measures. Researching the

development of these problems is important for all social contexts worldwide, and particularly important for conflict regions like the Middle East and Sub-Saharan Africa. Although these regions are affected most by political violence, not a single study assessing potential risk or protective outcomes at the level of a young person's social environment has been identified. The present meta-analyses on mostly Western (and in particular German) samples indicate that interventions to prevent outcomes of political violence should address risk factors of the immediate social environment. This holds especially for preventing young people from approaching deviant peer networks with racist or violent attitudes, or becoming a member of a political group that opposes democratic values and human rights. However, the emergence of political violence as well as radicalization processes in general is multi-causal in nature (Beelmann, 2020). This inevitably leads to constraints for programs that address only a limited number of risk or protective factors. On the other hand, multifaceted programs are often harder to implement because various social contexts are involved, and different socialization agents must be reached and participate in the planned activities. Thus, prevention networks containing repeated application of developmentally tailored programs that could be individually adapted to the social context and the special needs of the target group are necessary to deter young people from political violence (Beelmann et al., 2018; Malti et al., 2016).

Supplementary Material

The supplementary material is available in the electronic version of this article: https://dx.doi.org/10.3233/DEV-230347.

References

References for articles included in the meta-analyses are in Table S5, Supplemental Materials.

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Bio Sketches

Sara Jahnke, Ph.D., Associate Professor of Psychology since 2021 of the Department of Health Promotion and Development, University of Bergen, Norway. Research on mental health and treatment of people with pedophilia as well as risk factors for youth radicalization.

Katharina Abad Borger is a social psychologist with an interest in right-wing populism and radicalization. Her research is especially focused on relative need deprivation in the political context.

Lena Burgsmüller earned a M.Sc. degree in psychology from Friedrich-Schiller University Jena in 2020. She is currently training to become a psychotherapist at APP Köln.

Catalina Hoppe earned a M.Sc. degree in psychology from Friedrich-Schiller University Jena in 2020. She is currently training to become a psychotherapist at APP Köln.

Andreas Beelmann, Ph.D., Professor of Psychology since 2002, Head of the Department on Research Synthesis, Intervention, and Evaluation and Director of the Center of Research on Right-Wing Extremism at the Friedrich-Schiller University of Jena, Germany. His research focus on the development and prevention of behavioural problems in childhood and adolescents including antisocial behavior, crime, and violent radicalization.