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Police Violence and Public Health

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Abstract

Despite their enormous potential impact on population health and health inequities, police violence and use of excessive force have only recently been addressed from a public health perspective. Moving to change this state of affairs, this article considers police violence in the USA within a social determinants and health disparities framework, highlighting recent literature linking this exposure to mental health symptoms, physical health conditions, and premature mortality. The review demonstrates that police violence is common in the USA; is disproportionately directed toward Black, Latinx, and other marginalized communities; and exerts a significant and adverse effect on a broad range of health outcomes. The state-sponsored nature of police violence, its embedding within a historical and contemporary context of structural racism, and the unique circumstances of the exposure itself make it an especially salient and impactful form of violence exposure, both overlapping with and distinct from other forms of violence. We conclude by noting potential solutions that clinical psychology and allied fields may offer to

alleviate the impact of police violence, while simultaneously recognizing that a true solution to this issue requires a drastic reformation or replacement of the criminal justice system, as well as addressing the broader context of structural and systemic racism in the USA.

Contents

THE NATURE OF POLICE VIOLENCE IN THE USA

Policing in the USA is rooted in a legacy of state-sponsored violence and racism, with the earliest manifestations serving to maintain the institution of slavery (Bowleg et al. 2021; Cooper & Fullilove 2016, 2020; Lepore 2020). We now have the opportunity, more than 300 years after the formation of the first slave patrol in South Carolina in 1704 (Reichel 1992), to ask several important questions: What remains of this legacy of racism and excessive force in our current police system? And what are its implications for the mental and physical health of individuals and communities in the USA, particularly for people and communities of color? Our aim is to synthesize the accumulated evidence that bears on these critical questions to elucidate the public

health consequences of police violence, with the goal of informing development of interventions that may reduce or eliminate this harmful exposure.

Historical Context

The May 2020 viral video of George Floyd's murder by a police officer sparked national and international outrage. In the USA, the video also sparked new national awareness of anti-Black police violence, particularly for White people. This awareness was hardly new for Black, Latinx, and Indigenous communities, where police violence has long been a routine and ordinary fact of what it means to be people of color in the USA, as police violence in communities of color has long been a subject of fear and resistance. For example, rarely noted in Dr. Martin Luther King Jr.'s famous "I Have a Dream" speech at the March on Washington for Jobs and Freedom are King's references to police brutality. King (1963) cautioned that civil rights activists "can never be satisfied as long as the Negro is the victim of the unspeakable horrors of police brutality."

Police harassment and violence, namely routine police raids of bars frequented by lesbian, gay, bisexual, and transgender (LGBT) people, were also the precursor to the modern LGBT movement (Daum 2019, Duberman 2019). Although history has acknowledged the role of Black and Latinx drag queens and LGBT people in initiating the Stonewall uprising, Stonewall has been framed primarily through the prism of sexual and gender minority status, rather than its intersection with racial/ethnic minority status. Consequently, the role of racism in police violence has long been obscured in the retelling of that historical event.

By contrast, the mid-1990s brought widespread criticism of racial profiling in policing, most of it in response to ubiquitous cases of "driving while black," in which Black motorists were disproportionately followed and pulled over for driving infractions in comparison to their White counterparts (Harris 1997). Roughly two decades later, the intensity of criticism of anti-Black police violence reached its zenith in Ferguson, Missouri, in response to a grand jury's decision not to indict the officer who had shot and killed Michael Brown. This decision, combined with outrage at other cases in which Black people were killed by police, prompted protests in many other US cities, which would lay the groundwork for the formation of the Black Lives Matter (BLM) movement (Buchanan et al. 2020).

In 2013, in the wake of the acquittal of George Zimmerman for stalking and killing 17-year-old Trayvon Martin, Alicia Garza, Patrisse Cullors, and Opal Tometi created BLM. Now a global organization, BLM has been at the forefront of large national and international protests against police violence and has emerged as the largest protest movement in US history. Analyses from the *New York Times* document that approximately 15 to 26 million people in the USA participated in BLM protests in small towns and large cities in response to George Floyd's murder (Buchanan et al. 2020). Notably, recent analyses document a 15% to 20% decline in police killings in the municipalities that held protests, particularly protests that were large and frequent (Campbell 2021).

Building on BLM efforts and effectiveness, other grassroots social movements have been developed to gather data and propose solutions to the police violence crisis. Among them are Campaign Zero (see **https://campaignzero.org**), a data-informed platform designed to advance policy solutions to end police violence; the Police Use of Force Project (see **http://useofforceproject.org/**), an activist-based project to review of use-of-force policies in the 100 of the largest city police departments; and Mapping Police Violence (see **https://mappingpoliceviolence.org/**), a research collaborative that collects data on police killings nationally.

Predictably, the BLM movement has also spawned counterattacks and movements. Chief among the countermovements is Blue Lives Matter, an organization launched by active and retired law enforcement officers in 2014. Blue Lives Matter has advocated for the expansion of

hate crime laws—laws that have historically been limited to historically oppressed groups such as people of color, Jewish people, and sexual and gender minorities—to include law enforcement and emergency personnel as protected victim categories (Mason 2020). Blue Lives Matter is decidedly aligned with White nationalism and White supremacy, as it has fused authoritarian values and White supremacy with "blue" occupational identity and solidarity (Mason 2020).

Police violence is currently framed in most popular discourse, by both its critics and defenders, around incidents that result in death (i.e., police killings). While these most severe incidents provide very emotional and striking examples of police violence, they also allow responses that frame these as isolated events, the effect of a few "bad apples," or as issues with implicit biases and social cognition of single individual police officers (Carbado & Richardson 2018, Pryor et al. 2020). As such, they obscure the broader structural and systemic forces that, indeed, sometimes result in death but much more frequently result in an ongoing series of nonlethal events, exchanges, and interactions that maintain existing power relations and reinforce existing racial health inequities (Bowleg et al. 2021).

Defining Police Violence

Police violence, police brutality, and excessive force all refer to a similar underlying concept: the use of physical, sexual, psychological, or other forms of force or coercion that go beyond the needs and expectations of the job. "Excessive force" tends to be the preferred nomenclature among police departments, a term that acknowledges the legitimate role of force in policing but also acknowledges that this force can sometimes be applied inappropriately, without making a value judgment about its intentionality (Alpert & Smith 1994). "Police brutality" likewise acknowledges the excess, but places the emphasis on the harm, violence, and cruelty (or at least indifference) of these violent incidents (Freeman 1995). Herein, we use the term "police violence," which does not distinguish between appropriate or inappropriate use of force, since this distinction typically cannot be made in many of the data relied on by public health researchers to study this issue. It avoids (but does not negate) the difficult issue of drawing a line between legitimate and illegitimate uses of force (a line that, for each individual incident, is likely drawn in different places by the perpetrator and the victim, and likely differs between departments, cities, and regions, and certainly between countries). The term police violence also acknowledges that violence may affect health and well-being regardless of whether or not it is viewed as appropriate or legitimate in the eyes of the police or even in the eyes of the recipient of these violent acts. Pursuant to one of the earliest public health studies of police violence in the USA (Cooper et al. 2004), we adapt the World Health Organization conceptualization of violence as consisting of physical, sexual, psychological/emotional, and neglectful subtypes, with additional emphasis on physical force with versus without a weapon (Krug et al. 2002). Finally, we note the distinction between direct and indirect exposure to police violence, as both are considered in this article. In fact, as we turn to the history of policing in the USA, a strong case can be made that the original purpose of this institution was to use direct instances of state-sponsored violence to instill, in a more vicarious sense, a broad sense of fear and anxiety into people of color about upsetting the existing social and racialized order.

SOCIODEMOGRAPHIC CORRELATES OF POLICE VIOLENCE EXPOSURE

Police Violence Is More Common Among Racial and Ethnic Minority Groups

The targeting of Black individuals by the police has been the dominant narrative of BLM and other related social movements and is well supported by data on police shootings and fatalities. Racial disparities in police shootings vary substantially around the USA and, at the county level,

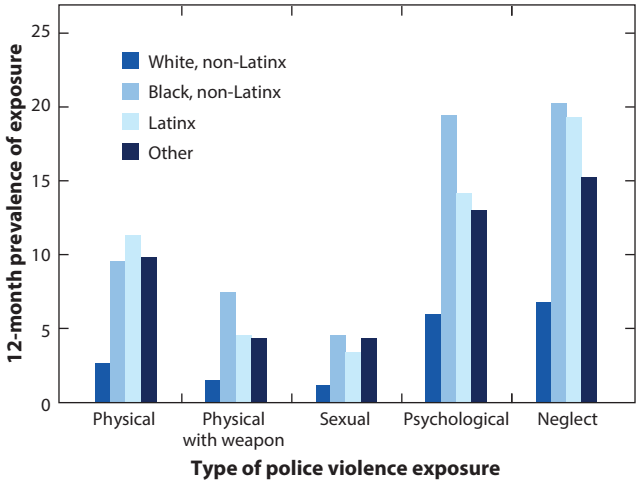

Figure 1

Past-year police violence by race/ethnicity in the New York City subsample of the Survey of Police–Public Encounters II.

seem to be related to median income and racial composition. On average, unarmed Black adults are approximately 3.5 times more likely to be shot by the police than unarmed White adults (and up to 20 times more likely in some counties), and the racial difference is only eliminated when comparing unarmed Black individuals with armed White individuals (Ross 2015). These differences in shootings contribute to a racial disparity in mortality by police killings, ranging from 1.9 to 2.4 deaths per 100,000 person years for Black males, compared with 0.8–1.2 deaths per 100,000 person years for Latino males and 0.6–0.7 for White males (Edwards et al. 2018). Taken together, these deaths account for approximately 8% of all homicides with adult male victims in the USA, making homicide by police a leading cause of death for young Black and Latino men. Limited available data suggest that Native Americans are at higher risk still, with evidence that they experience the highest rates of exposure to nonfatal police brutality (Alang et al. 2020b) and police killings (Shane et al. 2017).

Data from the Survey of Police–Public Encounters (SPPE) I and II (DeVylder et al. 2017c, 2018), two epidemiological studies of police violence and mental health in northeastern US cities, confirm the elevated risk of police violence exposure among Black adults, while also finding elevated rates of police violence in all other people of color compared with White adults (**Figure 1**). This effect is particularly pronounced for Latinx adults, who appear to report similar levels of exposure to nonfatal police violence as Black respondents, despite their lower risk of being victims of police-involved homicide (Edwards et al. 2018). These racial disparities in exposure to nonfatal police violence have yet to be reliably quantified in national probability samples, although findings have been consistent across data from multiple cities (DeVylder et al. 2017c, 2018).

Rates of Police Violence Exposure Are Elevated for Men Compared with Women

In both SPPE I and II, males were more likely than females to be exposed to all subtypes of violence (including sexual), except for the neglectful subtype (i.e., police failing to respond or responding inappropriately when needed) (DeVylder et al. 2017c, 2018). Rates of positive encounters with the

police are similar for males and females, suggesting that the differential rates in police violence are not explained simply by higher rates of contact with police among males. Fedina et al. (2018) further explored exposure to police violence among women in the SPPE I data. They found that women were more likely to be victimized by police if they had also been victims of sexual violence or intimate partner violence (IPV), which suggests that police may be responding inappropriately to IPV or similar calls.

Rates of Police Violence Are Elevated Among Sexual Minorities

Notably, both SPPE studies found extraordinarily high rates of police violence among the small numbers of transgender individuals ($n = 8$ in SPPE I; $n = 6$ in SPPE II). Half of the transgender respondents in SPPE II reported exposure to police sexual violence, and more than half reported exposure to physical violence, although rates were lower in SPPE I (DeVylder et al. 2017c, 2018). Data from the Survey of the Health of Urban Residents ($N = 4{,}389$, collected in 2018) had a larger "transgender or gender fluid" subsample ($n = 65$) and found elevated rates of "unnecessary" police brutality among this group (Alang et al. 2020b). Disparate rates in sexual violence exposure and possibly psychological violence were also found among sexual minorities in the SPPE data, but these findings should be replicated in studies that oversample for minority sexual orientation groups. Furthermore, marginalization at multiple intersections (e.g., race and sexual and gender minority status) is understudied. One study found that 60% of Black sexual minority men reported police harassment, and especially high levels of distress when that harassment was perceived as due to both their race and their sexuality (Remch et al. 2021). In addition, in the absence of empirical data, there is anecdotal evidence that Black transgender women are among the groups at highest risk of police violence (e.g., Burns 2020, Irvine 2014, James et al. 2017, Rosentel et al. 2020), but there are no population-level data currently available that are amply powered to test this hypothesis. Police violence may otherwise be particularly common or impactful for groups marginalized at multiple intersections, but more data are needed to address this issue.

Police Violence Toward Other Stigmatized Groups

Supplemental Material >

People with mental illness diagnoses are more likely to self-report all types of police violence exposure (Jun et al. 2020, Lamb et al. 2002) (**Supplemental Figure 1**), as are people living below the poverty line (Motley & Joe 2018). Other factors that are in need of more research but have been anecdotally or informally linked to police violence include homelessness and injectable drug use, while other major sociodemographic factors (e.g., urban versus rural settings) remain unexplored in the academic literature. While more research is needed to complete our understanding of the social patterning of police violence, there is enough evidence to strongly conclude that exposure to such violence falls along prominent fault lines of societal inequality.

PUBLIC HEALTH IMPACT: REVIEW OF THE EVIDENCE

While police violence has likely had a substantial effect on public health since its origins, it has only gradually come to the attention of public health researchers over the past decade. A turning point was an *American Journal of Public Health* article by Cooper et al. (2004), who highlighted the widespread experience and health effects of police violence among a qualitative sample of 65 adults in New York City. Cooper et al. concluded that police violence should be treated as a critical public health concern in the USA. This call for action was followed by silence until the recent, gradual increase in research over the past 5 years, beginning in 2015 with the death of Freddie Gray in Baltimore and spiking in 2020, coinciding with the deaths of George Floyd, Breonna Taylor, and Ahmaud Arbery as well as with widespread BLM protests (**Figure 2**) and

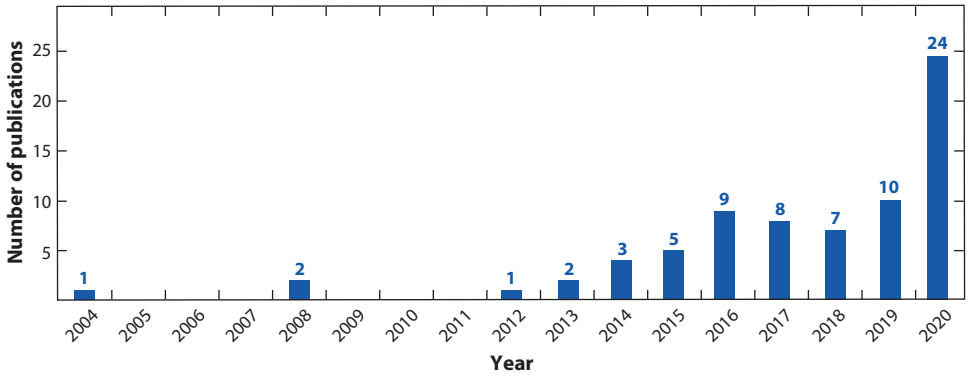

Figure 2

Number of publications per year identified using the search terms "police violence" and "health," based on results from the PubMed database (searched May 1, 2021).

efforts to call more attention to this issue through various academic outlets (Alang et al. 2017, APHA 2018, Cooper & Fullilove 2016, DeVylder et al. 2020, Fleming et al. 2021).

Mortality

While fatal police violence is less common than nonfatal police violence, it is substantially more common in the USA than in any other economically comparable nation (Lartey 2015), and it accounts for an exceptionally high proportion—approximately 8%—of total homicide deaths each year (Edwards et al. 2018). However, police-inflicted homicide has received relatively little attention in the public health literature, likely reflecting the difficulty of obtaining data on police-involved mortality (Feldman et al. 2019). There are no national standards for reporting officer-involved mortality, and homicide records in the USA do not indicate police involvement. As such, researchers must rely on public open-contribution databases, statistics maintained by media companies such as *The Guardian* and *Washington Post*, or governmental data that are woefully incomplete. Thus, a national, systematically collected database of police-involved deaths is urgently needed. One approach proposed by Barber et al. (2016) would be to simply expand the existing National Violent Death Reporting System to include data from all states and employ consistent definitions of police-related homicide.

Supplemental Material >

Supplemental Table 1 summarizes studies on police violence, with an emphasis on research from the past several years and studies that include predictors of interest to public health (e.g., race, income disparities). There is a preponderance of evidence that males were more likely than females to be killed by the police, typically by an order of magnitude (~10-fold-lower risk for women in Edwards et al. 2018; ~20-fold-lower risk for women in Edwards et al. 2019), although, notably, none of the studies reviewed included reliable estimates for transgender individuals. Nearly as consistent as the gender difference is the evidence supporting Black–White racial disparities in rates of police-inflicted death. Most studies ($N = 8$) reported that people from racial/ethnic minority groups were killed by the police at a higher rate than non-Hispanic Whites. Only two studies came to a different conclusion; one was found to include an analysis error (Cesario et al. 2019) that, when corrected, led to a different conclusion (Ross et al. 2021), and the other came to a conclusion that ran counter to its own data (Shane et al. 2017). These outliers aside, the remaining studies that examined racial/ethnic disparities found rates to be higher among Black versus White Americans; relatively similar across Latinx, White, and Asian individuals; and—in the one study

that included this group—especially high among Native Americans (Edwards et al. 2018, 2019; Hehman et al. 2018; Nix et al. 2017; Ross 2015; Schwartz & Jahn 2020; Scott et al. 2017; Shane et al. 2017). Most strikingly, the Black–White difference in death by police was nullified only when comparing unarmed Black people with armed White people (Ross 2015) and when comparing White individuals who were actively attacking the officer with Black individuals who were not (Nix et al. 2017).

Gaps in police violence exposure between Black and White people were not explained by crime rates (Ross 2015); instead, they appeared to be partially explained by factors such as neighborhood context (Holmes et al. 2019, Feldman et al. 2019), county-level income disparities and median incomes (Ross 2015), and average implicit racial biases across statistical areas (Hehman et al. 2018). Rates also varied geographically, whether at the region, state, or city level (Ross 2015, Schwartz & Jahn 2020, Shane et al. 2017).

Physical Health

In addition to mortality, police violence can affect physical health both through immediate acute injury and as a contributing factor influencing the development of chronic conditions. Much of the evidence on the physical health impact of police violence comes from ecological and community-level studies and, therefore, links aggregated rates of police encounters with aggregated rates of chronic health conditions (**Supplemental Table 2**). Immediate physical effects (e.g., acute injury) have been difficult to study, partly because injury is not tracked by media or governmental sources and partly because existing survey measures rarely ask about the physical consequences of that exposure. One exception that has an established literature, predating even the broader public health interest in police violence, is the effect of police neglect (i.e., inadequate responses when needed) on physical health and injury in the context of domestic violence (Coulter et al. 1999) or other interpersonal violence situations (see the sidebar titled Neglect as a Form of Police Violence: The Case of Police Response to Domestic and Interpersonal Violence).

Supplemental Material >

Using broad indicators of general physical health, large epidemiological studies have linked contact with the police to poor self-reported health among adolescents, especially among Black and Hispanic adolescents (McFarland et al. 2019), as well as a lower likelihood of "thriving" across physical and related health domains among adults (Sundaresh et al. 2020). Sewell and colleagues found a similar pattern among adults by linking community-level stop-and-frisk and use-of-force data to individual health outcomes, including specific health conditions (i.e., diabetes,

NEGLECT AS A FORM OF POLICE VIOLENCE: THE CASE OF POLICE RESPONSE TO DOMESTIC AND INTERPERSONAL VIOLENCE

While research on police violence has typically focused on use of excessive force, neglect of one's responsibility to prevent harm can also be considered a form of violence. Survivors of IPV and sexual assault are at increased risk of experiencing neglectful or inadequate responses from police when calling police for help and to report an IPV or sexual assault incident. This is especially true for victims who are women of color, who are sexual or gender minorities, or who live in lower-socioeconomic communities. Police failure to respond, or to respond appropriately, to victims of IPV and sexual assault can have both short- and long-term implications for the health, well-being, and safety of survivors. Effective police responses to incidents of IPV and sexual assault can provide an opportunity to link survivors to needed medical care, advocacy services, and other lifesaving resources.

hypertension, asthma, obesity; Sewell & Jefferson 2016). These associations are exacerbated for racial/ethnic minorities living in areas populated predominantly by Whites (Sewell 2017). Finally, unfair treatment by police has been linked to indicators of sleep quality, which in turn have been associated with general physical health and depression (Testa et al. 2021) or with posttraumatic stress and stigma (D.B. Jackson et al. 2020). Notably, effects on sleep were also evident among mothers of youth who were stopped by the police (Jackson & Turney 2021).

Much of the research on the physical health implications of police violence has relied on ecological data, which do not allow linkages to be made between population-level exposures and acute outcomes of individual-level events. Further research is needed on the nonfatal direct and acute physical impact of police stops, such as injury from being pushed, hit, shocked with a Taser, or nonfatally shot, as well as physically injured as a result of sexual violence, among other potentially important outcomes that remain uncounted and therefore generally absent from the public health literature.

Mental Health

Of all potential impacts of police violence on public health, effects on mental health have received the most attention in the academic literature. Unlike research on physical health and police killings, which have relied on public or crowdsourced data, much of the work on mental health correlates of police violence has utilized primary survey data that have directly assessed self-reported exposure to police violence. These surveys have used various approaches to conceptualizing and measuring police violence exposure, ranging from a single item drawn from a larger discrimination scale (e.g., in the National Survey of American Life; Oh et al. 2017) to longer assessments (e.g., in the SPPE I and II surveys; DeVylder et al. 2017c, 2018). The measures developed for SPPE I and II, specifically the Police Practices Inventory and the Expectations of Police–Public Encounters, are to date the only dedicated self-report police violence measures with validation and reliability data (but for a related measure, see English et al. 2017). Both SPPE measures conceptualize police violence according to the World Health Organization's four domains of violence (physical, sexual, psychological, and neglectful; Krug et al. 2002), based largely on earlier qualitative research by Cooper et al. (2004, 2005). Reliability estimates, whether assessed via internal consistency (Expectations of Police–Public Encounters) or via 7-day test–retest for individual questions of the Police Practices Inventory, were adequate to good, with the exception of a question on physical violence with a weapon ($\kappa = 0.13$), which was very rare and unstably assessed in the relatively small test–retest sample (DeVylder et al. 2017c).

Evidence based on these measures has shown that police violence is significantly associated with most mental health outcomes (**Supplemental Table 3**). That is to say, any type of police violence assessed seems to be associated with worse mental health across a variety of types of symptoms and behaviors. These include posttraumatic stress disorder (PTSD) symptoms, depression, distress, suicidal behavior, and even symptoms of psychosis. There are exceptions to this pattern (e.g., police violence was related to PTSD symptoms but not depressive symptoms in the fully adjusted models in Hirschtick et al. 2020), but the preponderance of evidence has yielded significant associations that tend to be robust to extensive adjustment for potential confounders.

Supplemental Material >

The first notable finding is in regard to the direction of causality. SPPE II showed evidence that the likely temporal relationship between police violence and mental health was with police violence as the predictor. (DeVylder et al. 2018). Specifically, the study presumed that if police violence directly increases risk for mental health symptoms through trauma/stress mechanisms, then the expected effect would be greatest for the most assaultive or traumatic forms of violence (e.g., sexual, physical with a weapon) as opposed to uniformly distributed across all

subtypes of police violence (**Supplemental Figure 2**). Results supported police violence as the likely cause, suggesting that psychiatric symptoms arise from police violence exposure, and not that mental health symptoms increase the risk of interactions with the police. Notably, this finding is consistent both with subjective reports from the limited qualitative research on police violence, which have found that young Black adults are often highly fearful of the police and experience symptoms consistent with clinical definitions of trauma (Lee & Robinson 2019), and with recent longitudinal findings (Bacak & Nowotny 2020, Dennison & Finkeldey 2021, Jackson et al. 2021, Leib et al. 2021).

A second notable finding is that, while police violence is associated with increased risk for multiple mental health outcomes, the magnitude of association with suicide attempts in particular is extremely large, even in adjusted analyses. This finding has now been replicated in several studies (DeVylder et al. 2017b, 2018). When first reporting this association in SPPE I, the authors were concerned that the magnitude of associations between assaultive violence and suicide attempts [e.g., adjusted odds ratio (OR) = 10.7 for physical violence with a weapon; OR = 10.2 for sexual violence] was perhaps an outlier or otherwise due to statistical error, as the confidence intervals (CIs) were quite large (DeVylder et al. 2017b). However, these associations have been replicated, yielding a meta-analyzed adjusted effect of OR (95% CI) = 10.28 (5.16–20.45) across the five SPPE subsamples (meta-analyzed OR not previously reported). The post hoc interpretation was that exposure to police violence may contribute to so-called acquired capacity (i.e., the ability to engage in suicidal behavior, attained through life experiences), the last step in the progression between ideation and attempts in leading theories of suicide (Hagan et al. 2016, Klonsky & May 2015). Conceptually, the physical and psychological effects of police violence, coupled with the lack of available recourse (i.e., hopelessness), may reduce barriers that might otherwise prevent a person from acting on suicidal thoughts. Regardless of whether this speculative explanation is correct, the magnitude of association is highly concerning and needs further exploration.

A third notable finding is that police violence exposure appears to be associated with elevated risk of subclinical psychotic symptoms, which are delusion-like or hallucination-like experiences that resemble the symptoms of schizophrenia but are typically of lesser intensity or persistence (DeVylder et al. 2017a, 2018). These symptoms are considered proxies of psychosis vulnerability in epidemiological studies (Anglin et al. 2021, Hanssen et al. 2005, Sullivan et al. 2020, van Os et al. 2009) and are highly sensitive to interpersonal stressors and trauma. This link between police violence and psychotic experiences is consistent with theories of psychosis etiology that suggest the social environment can induce stress and increase psychosis risk in vulnerable individuals (Jones & Fernyhough 2007, Selten et al. 2013). In particular, links between police violence and psychosis argue for the need to consider the dimension of power when evaluating social risk factors for psychosis.

Finally, it is notable that the threshold at which negative police encounters are associated with mental health is quite low. While some studies that have compared various types of exposure have indeed shown assaultive forms of violence to be most impactful (DeVylder et al. 2017b,c; 2018), many of the studies reviewed focused on less severe and intrusive forms of force, such as stop and frisk (Sewell et al. 2016, Sundaresh et al. 2020) or emotional violence (e.g., using slurs, threatening), and, in some cases, even found detrimental mental health effects of anticipating potential violence (e.g., Alang et al. 2021a, DeVylder et al. 2017c, Graham et al. 2020). Even though most of these studies suggest that police violence may contribute to negative health outcomes, it is important to note that individuals with mental health conditions, especially severe mental illness (e.g., schizophrenia, bipolar disorder), are also a marginalized group at higher risk of further exposure to police violence (Jun et al. 2020).

Vicarious, Indirect, and Contextual Effects of Police Violence

Substantial evidence links indirect exposure to police violence to ill health, such as through violent incidents that are directed toward a friend or family member or through exposure to violent incidents reported in the media (**Supplemental Table 4**). The limited research on vicarious effects of police violence has focused primarily on the impact of police killings or media reports of police violence. Studies using the US Behavioral Risk Factor Surveillance System have shown that police killings of unarmed Black Americans are associated with a greater frequency of self-reported "poor mental health days" among Black adults (Bor et al. 2018), particularly when there was substantial national interest (Curtis et al. 2021). A recent qualitative study has corroborated these findings (Hawkins 2021). Furthermore, in a study of emergency department visits across five states over 3 years, police killings of unarmed African Americans were associated with an 11% increase in emergency department visits for depression (Das et al. 2021). These effects appear to extend beyond psychological distress and well-being, particularly for women. Sewell et al. (2020) found that community-level rates of lethal police violence were associated with physical health conditions, with more pronounced effects for women (particularly for obesity). Additionally, Goin et al. (2021) found that indirect exposure to police killings in one's own neighborhood increases the likelihood of preterm birth among exposed pregnant women. The vicarious effects of police violence generalize to adolescents as well (e.g., Black and Latinx youth experience greater emotional distress than White youth in response to police stops; Jackson et al. 2021) and to online exposure to police killings and other race-related traumatic events (Staggers-Hakim 2016, Tynes et al. 2019). For Black boys, recent police killings (in their county) were even correlated with elevated nightly cortisol levels (Browning et al. 2021), suggesting a potential biological mechanism linking awareness of police violence to mental health symptoms.

Supplemental Material >

In light of the suggestive evidence from these studies, it is highly likely that assessments of vicarious exposure to police violence have only scratched the surface of the true population-level impact of this exposure. Many potential pathways linking vicarious police violence exposure to ill health have yet to be explored in the academic literature. An obvious possibility is the mental and perhaps physical health effects of bereavement when a loved one is lost. The fear that one may be harmed or killed by the police in itself restricts opportunities in ways that may affect many social determinants of health (e.g., access to jobs, education, mobility throughout one's city), which can in turn exert direct effects on health and mental health.

Finally, the potential impact of police violence on the public's overall attitude toward interpersonal violence must be considered. Of special concern is the possibility that, for some observers, it is regarded as legitimizing the use of force by the racially and economically privileged class against marginalized individuals. Just as there are vicarious effects of police violence on entire communities, which can be linked to one's identification with victims of police violence (e.g., due to race, geographical location, or other factors), there are also vicarious effects on those who identify with the perpetrators of police violence. We term this concept "vicarious perpetration," and we believe it may be one area of substantial impact that remains largely unacknowledged and underresearched in the academic literature. We have seen examples of this vicarious perpetration or, alternatively, "deputization of whiteness" (Bowleg et al. 2021) across many of the highly publicized cases of police violence toward Black Americans over the past several years. Ahmaud Arbery was killed by a retired police officer who no longer carried the authority of the occupation but represented it by association. George Zimmerman was not a police officer but, in the absence of the police, took on the role as a deputized enforcer of Black marginalization. More recently, we saw an example of this deputization of whiteness in the interaction between a White dog-owner and a Black

birdwatcher in New York City's Central Park (Hackett & Schwarzenbach 2020). These do not appear to be one-off incidents, as extensive data from states with stand-your-ground laws show that the defendants are more likely to be acquitted with the stand-your-ground defense if the victim is Black (Ackermann et al. 2015). These incidents cannot be considered acts of police violence in the literal sense, but they are enabled by a national historical context in which the police legitimize the use of lethal force toward Black civilians as a means to maintain and enforce White supremacy. As the Afropessimist scholar Frank Wilderson III states, "For Black people it is impossible to discern where the violence of the state ends and the violence of one's White neighbors begins" (2020, p. 141), and a complete understanding of state violence requires an understanding of the complicity of those who allow such violence to occur.

WHAT MAKES POLICE VIOLENCE UNIQUE?

The Structural–Psychological Model of Police Violence and Public Health

DeVylder et al. (2020) proposed a novel conceptual model, the structural–psychological model of police violence, to understand the mechanisms underlying the effects of police violence on mental health. A key aim of the model was to better understand whether police violence is unique and distinct from other forms of violence exposure (DeVylder et al. 2020). The model is largely conceptually driven rather than data driven, given that most studies on the public health impact of police violence have focused on primary associations (i.e., whether health or mental health outcomes are more common among those exposed to police violence) or related disparities (i.e., whether some groups are more likely to be exposed to police violence, or more impacted when it occurs), and there has been relatively little research on how police violence affects health and mental health. For this reason, the model should be treated as a working model of potential mechanisms underlying the impact of police violence, which is subject to revision and modification as further evidence accumulates. Briefly, the model outlines (*a*) structural factors that influence the prevalence of police violence, (*b*) contextual factors that may influence the public health impact of police violence incidents, and (*c*) factors that may impede coping and recovery (**Figure 3**). These factors were conceptualized around mental health but are expanded here to apply to chronic physical conditions as well, which are likely linked to police violence through the stress response and other psychological mechanisms (Myers 2009). The model has been further modified to include acute physical injury and death related to police violence, as well as vicarious health effects on victims' friends, families, and broader communities. It has also been expanded to include several other structural factors, notably by (*a*) including structural stigma in addition to structural racism, to account for the elevated rates of police violence toward gender and sexual minorities and people with mental health conditions; (*b*) recognizing the role of qualified immunity, the US-specific legal principle protecting police officers from civil suits in most circumstances; and (*c*) including community activism and support as a potential protective factor at the population level, given evidence that rates of police violence declined in communities with high rates of participation in BLM and related protests (Campbell 2021). In addition, we have included medical mistrust as a potential mechanism, on the basis of studies by Alang et al. (2020a, 2021b) linking police violence to greater mistrust in medical institutions (as well as mistrust of the police themselves; A.N. Jackson et al. 2020), which may have widespread implications for the prevention and treatment of a wide range of health and mental health conditions. Reinforcing this mistrust are reports of medical examiners listing medically implausible explanations for police killings on death certificates, including at least four dozen documented cases of police-inflicted deaths being attributed to sickle cell trait, a generally benign recessive genetic condition that is disproportionately found in Black people in the USA, despite evidence of obvious acute physical trauma such as fractured bones and broken teeth (LaForgia & Valentino-DeVries 2021).

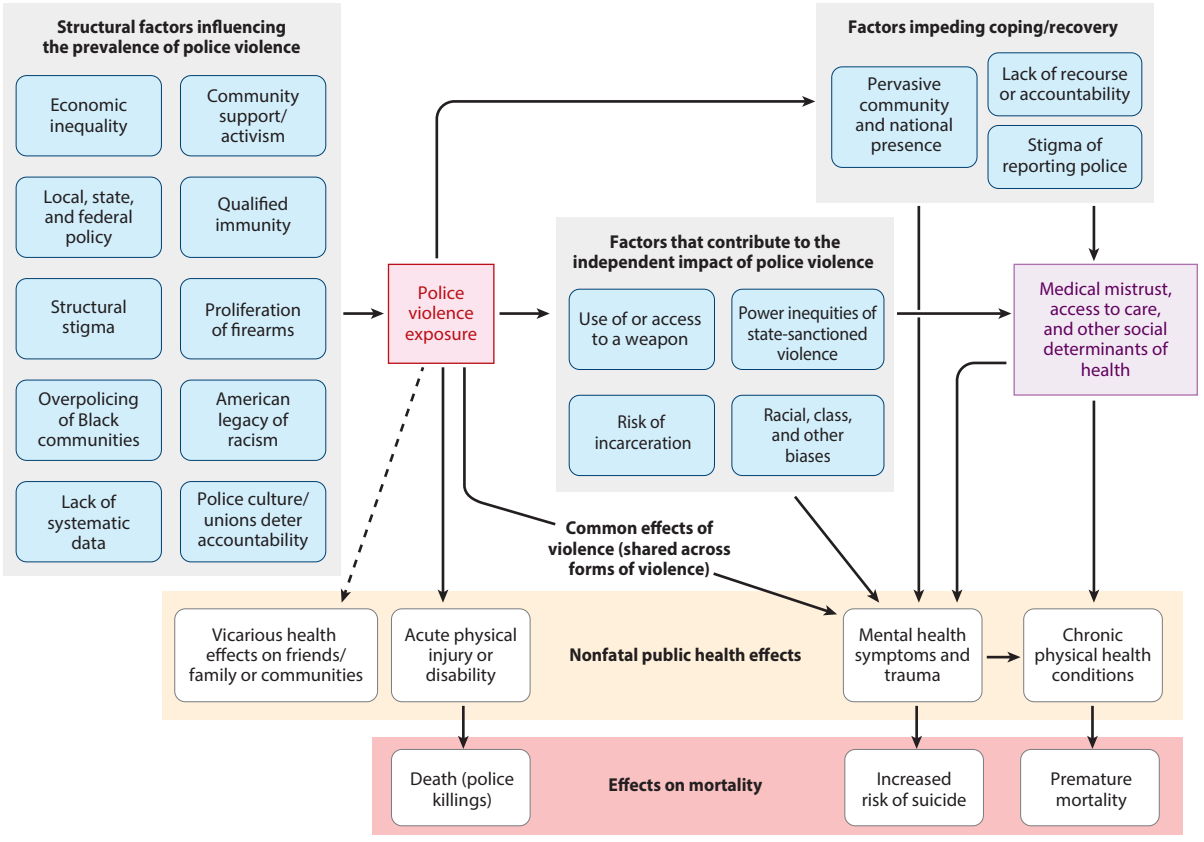

Figure 3

Structural–psychological model of police violence, a conceptual model of the impact of police violence on public health. Figure inspired by DeVylder et al. (2020).

Whether by following this model or other proposed frameworks (e.g., the Anti-Black Police Brutality Continuum; Bowleg et al. 2021), a central goal of the next wave of police violence research should be to move beyond prevalence and main effect studies to begin to unpack the social and structural factors that affect the overall rates and disparities in rates of police violence. Some of these mechanisms are likely common to other forms of violence. However, there are also distinguishing factors unique to police violence, related to the institutional and state-sanctioned nature of police violence that is not present in interpersonal forms of violence. Given the primacy of racial/ethnic disparities in police violence, attention should be paid especially to the role of systemic racism and other structural factors that may contribute to the high rates of police violence in the USA. Future studies should include prospective measures of potential mediators derived from the models above, or other conceptual frameworks, and use structural equation models and tests of mediation to examine potential mechanisms linking police violence to public health outcomes. An additional possibility that must be considered is that nonfatal police violence and fatal police violence do not lie on a continuum but rather are categorically distinct phenomena with some overlapping mechanisms or risk factors. Finally, while understanding mediators may help alleviate the impact of these incidents, the ultimate goals should be to reduce the occurrence of police violence and to minimize any related disparities it

might engender, so that the US criminal justice system may more closely resemble the much less violent and more prosocial systems of other economically advanced nations (Lartey 2015).

Police Violence in the Historical Reproduction of Health Inequalities

While the structural–psychological model presented in **Figure 3** unravels a multitude of plausible connections between police violence and health and health inequalities, it is also important to consider why such processes are reproduced in different places and different times. Considering this possibility can help account for the enduring racial inequalities in health that have beset our nation since before its founding. In his sociological monograph *The Philadelphia Negro*, W.E.B. Du Bois [1996 (1899)] documented that the Black population at the time was substantially more likely than its White counterparts to succumb to the major killers of the day, such as tuberculosis, pneumonia, and diarrheal disease. Since then, death rates have declined substantially and risk factors for the major killers of his time have been addressed, but one fact has remained stubbornly persistent: a large and continuing mortality-rate gap favoring White people over Black people as the diseases Du Bois identified have been replaced by the major killers of our time, including heart disease, cancer, and stroke. Fundamental Cause Theory from medical sociology was developed to explain the persistence of socioeconomic status (Link & Phelan 1995) and race (Hatzenbuehler et al. 2013, Phelan & Link 2015) in health inequalities across places and times. With respect to race, a key driver is the propensity of many Whites to maintain the racial hierarchy and their privileged position in it. In Fundamental Cause Theory this propensity leads to the re-creation, through varying mechanisms across different places and different times, of an unequal distribution of the social determinants of health by race such as access to good-paying jobs, educational and housing opportunities, and many more (Hatzenbuehler et al. 2013, Phelan & Link 2015). And while the means of re-creating the hierarchy have changed over time from slavery to Jim Crow to mass incarceration (Alexander 2012), policing and police violence represent a prominent means through which racial inequality and thus racial inequities in health are reproduced.

The consequences for inequality are immediate, as criminal justice involvement confers a sticky label that dramatically restricts access to jobs and housing (Pager 2003). And if prison time results, families are broken, support for children is wrenched away, and broadly consequential exposure to prison-based traumatic experiences is incurred (Martin 2017, Travis et al. 2006). These processes contribute to racial gaps in the social and economic experience of Whites and racial/ethnic minorities and reinforce Whites' capacity to remain at the top of the racial hierarchy. According to a Pew Research poll, in comparison to their Black counterparts, White people are much more likely to think that the police are doing a good job protecting people from crime, using the right amount of force, and treating racial groups equally (Thomas & Menasce Horowitz 2020). White people are also more likely to want to maintain or increase funding to the police (77%) than are Black people (55%) (Thomas & Menasce Horowitz 2020). The support provided by White people helps keep in place the actions police take that have the consequence of maintaining racial inequality (see the sidebar titled Diversion of Attention from Nonmarginalized Groups).

POTENTIAL SOLUTIONS

Identifying the Point of Intervention

An individual incident of police violence takes place between a civilian (or civilians) and a police officer (or officers). However, such incidents also take place within a broader societal context, in which some individuals are much more likely to face a violent encounter than others.

DIVERSION OF ATTENTION FROM NONMARGINALIZED GROUPS

The role of nonmarginalized groups in perpetuating police violence includes reluctance to consider the severity of the issue, quickness to justify or defend it, and stigmatization of people reporting exposure to police violence. Self-identified "color blindness" allows empowered groups to ignore social determinants of police violence exposure and therefore justify it as being attributable to the individual responsibility of those affected by it. Such shifting of responsibility from nonmarginalized to marginalized groups is common. Link & García (2021) introduce the concept of diversions to account for the massive disinclination among health researchers to study the opportunity hoarding and discriminatory behaviors of the advantaged. These authors reviewed successful grant applications, health data sets, journal articles, and policy pronouncements, finding that very few focused on the advantaged. Instead, in seeking to understand health inequalities, attention was diverted to the traits, behaviors, cultures, and communities of disadvantaged groups. The study of police violence is consistent with the diversion concept because attention has long been diverted away from it. The attention it is now receiving represents a strong response to a diversionary tendency that has kept the health consequences of police violence hidden for too long.

Furthermore, both the characteristics of the incident and the societal context may affect how an individual is affected by police violence and how that violence affects their physical and mental health (and possibly even mortality). Therefore, when considering potential interventions to address police violence, we must consider approaches at multiple levels: (*a*) reducing the health impact of incidents of police violence at the micro level, (*b*) reducing the likelihood that police encounters will turn violent at the mezzo level, and (*c*) reducing the overall rates of police violence at the macro level. Each of these possibilities is addressed in turn below.

Micro-Level Solutions: Addressing the Impact of Police Violence on Individuals

While there is a significant body of literature on the efficacy of trauma interventions more broadly (Gennari et al. 2018, Lenz et al. 2017, Seidler & Wagner 2006), no clinical interventions appear to have been developed specifically for victims of police violence (but see related research on therapy for racist incident–based trauma; Bryant-Davis & Ocampo 2005, 2006; Carlson et al. 2018). In a qualitative study of 40 Black men exposed to police violence and police killings, Lee & Robinson (2019) found that lack of control, defenselessness, and helplessness were prominent among victims, given the inherent power differential and victims' race-based appraisals of this violence (i.e., permanent and something one cannot change). Both direct and vicarious exposure to police violence occurred repeatedly for these men throughout childhood, adolescence, and emerging adulthood, highlighting the need to take a life-course approach to implementing interventions for victims of police violence. More research is needed both to address police violence exposure in existing trauma interventions and to create new ones that focus on addressing racial trauma and grief using existing cultural strengths. Moreover, a trauma-informed community engagement model that focuses on community healing, such as the People's Coalition for Justice and Police Accountability in Maryland (Hutto & Green 2016), would best address the nature of police violence as a collective trauma and could promote healing for victims and families. Finally, police violence should be included in the list of adverse childhood experiences or traumatic stressors in the *Diagnostic and Statistical Manual of Mental Disorders* (Lee & Robinson 2019, Jackson 2021), and interventions must incorporate healing connected to race-based traumatic stress (Bryant-Davis & Ocampo 2005, 2006; Carter 2007) for the disproportionate number of Black and Latinx victims.

Mezzo-Level Solutions: Reducing the Likelihood That Police Encounters Will Turn Violent

We use the term mezzo-level solutions to refer to interventions that do not fundamentally alter the nature of policing but instead are intended to reduce the likelihood of violence resulting from the existing criminal justice system. Two interventions that have received much attention at this level include the use of body-worn cameras (BWCs) and the involvement of community members in the oversight and conduct of police activities.

Body-worn cameras. Proponents of BWCs argue that these types of interventions help facilitate accountability among police officers. One study found that BWCs were associated with significantly fewer police killings and should be replicated (Shane et al. 2017). However, Kerrison et al. (2018) argue that claims that BWCs facilitate accountability are unfounded, particularly because investigations into police brutality with even the most damaging evidence do not result in just outcomes for victims or serve as a deterrent within police culture for future misconduct or abuse. Furthermore, a recent study showed that BWC footage exacerbates rather than alleviates racial biases (R.L. Bailey et al. 2021). A review by Lum et al. (2019) found that police officers' and civilians' perceptions of BWCs were overall supportive but that there was no statistically significant or consistent effect on officer behavior. For these reasons, interventions such as the use of BWCs may not offer the utility, and opportunity, to have a real impact on preventing police violence, unless the reduction in police killings can be replicated (Shane et al. 2017).

Integration of community members into police structure. Some approaches have been used to better integrate community members into police structures, particularly through the use of civilian oversight frameworks, to promote greater accountability and prevent police misconduct and abuse. In a review of 97 police oversight executives, researchers found three common models of civilian oversight in the USA: investigation focused, review focused, and auditor/monitor focused. These models often have shared goals (e.g., increased transparency, improved public trust); however, findings on the key elements in models for successful police oversight are mixed (De Angelis et al. 2016). More research is needed to better understand the combination of factors necessary in integrating community members into policing structures and, specifically, to what extent they reduce and prevent police violence. Emerging data on the effects of new legislation such as the Maryland Police Accountability Act of 2021, which addresses community integration, can be used to inform future related efforts (Baltimore City Off. State's Atty. 2021).

Macro-Level Solutions: Changing the Context and Reducing Prevalence of Police Violence

Broader policy solutions could fundamentally alter the nature of policing in the USA, with the goal of creating a more equitable system that deters violence and is less prone to maintaining the legacy of structural racism. These potential solutions range from ending qualified immunity, which provides accountability to the current policing system, to drastically shifting responsibility (and funding) for public safety away from the police and toward more prosocial service approaches.

Ending qualified immunity. Qualified immunity refers to the US legal doctrine that protects police officers from civil prosecution under the vast majority of circumstances, even in incidents that result in death. This is perhaps one of the biggest barriers to addressing police violence and one that has been difficult to study due to its ubiquity; this doctrine applies almost uniformly across

the country, although New York City has repealed qualified immunity and other cities may soon follow. To the extent that accountability and consequences are a deterrent (indeed, our criminal justice system is built upon the assumption that this is true), this doctrine removed perhaps the biggest potential deterrent to acts of police violence: personal responsibility and accountability. Research should closely examine the changes underway in New York City to determine whether the end of qualified immunity indeed brings about reductions of police violence and what, if anything, is the purported cost of this shift in policy.

Collaborations between social work and the police. In a systematic review of studies on collaborations between police and social workers, Patterson & Swan (2019) found that police departments do not typically use established models of police–social work collaboration (with some exceptions of "crisis intervention teams") and also significantly vary in their implementation and approach. Among 83 implemented interventions, the most common social problem addressed in police–social work partnerships was domestic violence, followed by mental illness, crime, alcohol/substance abuse, and juvenile delinquency. Patterson & Swan (2019) also note that the "collaborative" components of such partnerships lacked specificity, including the types of activities used to achieve teamwork, making it difficult to ascertain the effectiveness and feasibility of replicating interventions using police–social work partnerships. Relatedly, Shapiro and colleagues' (2015) systemic review of mental health interventions found limited evidence of positive impacts of police–mental health programs on individual and community outcomes apart from reduced reliance on the justice system. Other social work scholars have called for the social work profession to implement actions that move toward defunding the police, arguing that social work's collaboration with the police is effectively "carceral social work" (Jacobs et al. 2021). They describe the ways in which punitive responses to social problems such as domestic violence, child welfare, schools, and health/mental health have been used to coerce and control communities of color. They call for anticarceral responses to these and other social problems that foreground safety, accountability, and the participation of families and community members.

The popular movement to defund the police. Perhaps the most radical approach to addressing police violence, and also one of the most popular and controversial, is to simply reduce and shift the overall role that police play in our society by encouraging the police to focus primarily on criminal activity and to allocate resources for noncriminal social issues (e.g., homelessness, mental health, traffic) to other services (McDowell & Fernandez 2018). The movement to defund the police arose out of prior efforts toward justice reinvestment and gained substantial support concurrent with the BLM protests of 2020. In short, this movement calls for divesting funds from police departments; reallocating funds to social services, housing, education, and health care; and otherwise addressing social issues that are regarded as the root causes of crime (Butler 2020). The central assertions of this movement are based on the central role of structural racism in the history of policing in the USA (as discussed above), the inappropriateness of the police for many of their de facto roles (e.g., responding to calls about homelessness and mental health crises; Vermeer et al. 2020), and the lack of the overall effectiveness of police in reducing rates of crime, particularly violent crime, relative to the amount of financial investment (Bump 2020). Police violence is sometimes defended as a necessary part of a difficult job, with the assumption that the net benefits are positive because of the effect on community violence. However, there is evidence that police violence is not only more common than community violence among youth in highly impacted communities but also more impactful in terms of its effect on PTSD risk; the contention that the benefits outweigh the costs does not appear to be supported by the data (Lewis & Wu 2021). Still others argue that police violence is not a necessary evil at all but simply a functional component of a system that is intended more for social control than reduction of crime (Coaston 2021, Malik 2021).

Minimal academic research has addressed the public health implications of defunding the police, especially relative to its prominence in the current social discourse on policing. Emergency physicians have argued that shifting funding from the police to more preventive social services may reduce emergency department burden and address the poor match between police training and the nature of many 911 calls related to substance use, housing issues, domestic violence, and other concerns (Walker 2020). Social workers have argued that defunding the police may alleviate health disparities, particularly if replaced with community-based health, mental health, and substance use services (Jacobs et al. 2021). While the American Public Health Association has issued an impassioned policy statement arguing that police violence needs to be addressed as a public health issue, it does not refer to police defunding, divestment, or abolition (APHA 2018), although, notably, it does include statements on reinvestment in community resources and was issued before the defund-the-police discourse rose to prominence. The overall argument that defunding the police would reduce the prevalence of police violence is sound and logical; it may have additional health benefits, to the extent that police involvement in health and mental health care currently exacerbates public health disparities. The flip side, whether increasing rates of crime and violence would counter any public health gains made by defunding the police, remains an open question. However, the evidence that increased funding has not led to a notable decrease in violent crime suggests that this would not be the case (Bump 2020).

Addressing Systemic and Structural Racism

One perspective on the role of police in US society is that it facilitates the maintenance of White supremacy. This action-in-service-of-hierarchy and privilege rests on two necessary conditions—a strong motivation among Whites to maintain such a hierarchy, and the power to do so (Z.D. Bailey et al. 2021). With respect to motivations, concepts from stigma research have relatively recently turned away from the idea that stigmatizing attitudes and behaviors are a reflection of ignorance, toward a realization that stigma can be effectively deployed to garner desired outcomes for stigmatizers. In this view, stigma can achieve exploitation and/or domination (keeping people down), norm enforcement (keeping people in), or avoidance (keeping people away) (Phelan et al. 2008). It follows that if people want to keep other people down, in, or away, they will seek mechanisms to achieve these desired ends (Hatzenbuehler et al. 2013, Link et al. 2017). Police action is one way that White racism can serve to keep minority groups down so as to benefit the wealth and privilege of White people, keep them in or under control, and/or keep them away or segregated from Whites.

Structural racism has been identified as a fundamental cause of health disparities in the USA (Mateo & Williams 2021, Phelan & Link 2015, Razai et al. 2021), and a key aspect of fundamental causes is that they re-create associations with health across time and contexts, through an ever-changing variety of mechanisms. If police violence is one mechanism of maintaining the effect of racism on health, then, one may argue, eliminating police violence will simply lead to the emergence of a new mechanism through which racism will continue to influence health. Even as efforts have arisen to address police violence as a mechanism of structural racism over the past few years, new mechanisms of racism through policing have arisen, including digital policing of social media or "stop and frisk online" (Patton et al. 2017). It logically follows that a sufficient solution may lie not simply in the abolition of police violence or even of the police but rather in the abolition of structural and systemic racism. This has been most successfully achieved through social movements like Civil Rights and BLM, which have effectively but slowly and incompletely altered inclinations to enact racism and limited the power of those inclined to do so. Attending

to police violence is a critical element of these movements, and the struggle to address this particularly pernicious aspect of White supremacy is a central part of what needs to be done. Still, if we are ever able to successfully end systemic racism, the institution of unequal police violence would be expected to wither from lack of function, and the expected health benefits would extend far beyond the effects of this one particular mechanism through which racism exerts its influence on the health of the population.

CONCLUSIONS

Up until the past 5 years, police violence in the USA was largely disregarded by academia across the fields of public health, psychiatry, psychology, social work, and other allied health professions. This omission translated into a significant blind spot for what is emerging as a substantial cause of health inequities in the USA, particularly disparities by race and ethnicity. Indeed, nearly half of the articles published on police violence from a public health perspective over the past 2 decades have been published in the past 2 years. This snapshot of the rapidly expanding literature leads to several conclusions. First, police violence is indeed occurring at alarmingly high rates in the USA. Second, there are substantial disparities in exposure by race and, albeit with less accumulated evidence, intersections with other factors such as gender and sexual minority status, housing status, presence of mental illness, disability, and possibly others. Third, police violence affects public health through multiple pathways, including the immediate acute physical effects of physical injury of death, subsequent associations with mental health, and long-term associations with chronic physical conditions. Fourth, this public health impact of police violence applies not only to those who are direct victims but also across members of marginalized communities.

While we have come a long way in a short time in developing our knowledge of the prevalence, disparities, and main effects of police violence, there is still much to learn. We have minimal data on the mechanisms linking police violence exposure to public health outcomes (other than the immediate acute effects), although we have promising conceptual models to guide future research. We also have limited published research on the structural factors that may affect overall rates of exposure and disparities in rates of exposure. Coinciding with these gaps in understanding, we have a range of potential solutions ranging from minor reforms, such as increasing use of BWCs, to major radical shifts, such as defunding and replacing the police with more proactive and preventive social services. Research can provide some guidance in selecting among these potential approaches, although the urgency of the situation may lend itself to rapid policy change in which the legislation precedes the data, in which case we can use these changes as natural experiments to discover what works and what does not. While we would like to remain optimistic that reforms can yield meaningful change, the extensive history of police violence in the USA, the current scope of the problem, and its drastic impact on public health all suggest that this may be an opportune time to rethink whether the policing system can indeed be reformed, and to seriously consider alternatives that do not leave us searching for a path toward justice and peace in the context of a system that has never, in more than 300 years, been just or peaceful across the entire population it is intended to serve.

SUMMARY POINTS

1. Police violence is a long-standing problem in the USA that has only recently come to the attention of public health, clinical psychology, and related fields.

2. There is substantial evidence for disparities in police violence exposure by race/ethnicity and sexuality, with additional support for disparities by gender identity, mental and physical disability status, and income. Other potential inequities (e.g., rural versus urban, housing status) remain understudied.
3. Police violence accounts for an estimated 8% of total homicides per year in the USA, with unarmed Black adults being as likely to be killed by police as armed White adults.
4. Invasive police practices such as stop and frisk have been linked to stress-related physical health outcomes, including diabetes, hypertension, and obesity, among targeted populations.
5. Police violence is associated with mental health outcomes including depression, anxiety, trauma symptoms, and suicidal behavior, with notably large associations between assaultive police violence and suicide attempts.
6. The furthest-reaching impact of police violence may be through vicarious and indirect mechanisms (e.g., knowing someone who was victimized or watching media reports of police killings), but this area is in dire need of greater research.
7. Novel conceptual models of police violence, such as the structural–psychological model and the Anti-Black Police Brutality Continuum, may help researchers, practitioners, and policy makers identify potential points of intervention.
8. Potential solutions range from those that address the impact on individuals, such as trauma-focused therapy, to drastic policy shifts espoused by calls to defund the police and address structural racism.

FUTURE ISSUES

1. There is a need for systematic tracking of police violence in the USA, including consistent reporting standards across police precincts.
2. Measures of police violence should be refined, validated, and administered in nationally representative probability samples.
3. Vicarious effects of police violence, as well as vicarious perpetration (and how it overlaps with police violence), require further research.
4. We need to understand how the actions and attitudes of advantaged groups enable police violence toward marginalized communities.
5. Qualitative data are needed to understand the experience of police violence among those who are directly (and indirectly) affected.

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Contents

Errata

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