Guns in the Medical Literature: A Call for Scientific Integrity

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Increasing public and legislative awareness of data manipulation during the COVID-19 hysteria[1] prompts us to chide certain high-profile medical journals to be more scientific. Not only COVID-19 research and commentary, but research and commentary on other controversial subjects (e.g., HIV/AIDS, vaccines, gene therapy, fetal research, and gun violence) spur our request.

We are versed in the medical literature on gun violence, so we use such examples here to illustrate the wider problem, a significant failure of peer review. A recent *Journal of the American Medical Association* (*JAMA*) editorial celebrating the end of the Dickey Amendment[2] is an example, and our most recent reminder.

The Dickey Amendment provided that "none of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention (CDC) may be used to advocate or promote gun control."[3] Opinions vary on the right amount of taxpayer funding of anything, but *JAMA* avoids examining the funding record, so we wonder: Will any amount satisfy *JAMA*?

The facts: The Dickey Amendment was enacted for good cause: refereed exposés[4-7] and congressional testimony[8] about the incompetence and overt mendacity of tax-funded research on guns. Contrary to *JAMA*'s claim, the Dickey Amendment did nothing to curtail the agenda-driven research.[9] Not a day or dollar was actually lost to the pandemic of propaganda.[7] Despite the plaintive strains of 166 organizations and more than 100 individual advocacy researchers claiming under-funding,[10-13] at least $46 million in taxpayer[14-16] and private[17-19] funding for gun studies was made available following the Dickey Amendment.

In short order, the funded researchers continued to study: urban gun violence, domestic gun violence, mass shootings, gun suicides, officer-involved shootings, violent crime, school violence, firearm safety, defensive gun use, and non-lethal firearm injuries. Unchastened by refereed criticism, the overt mendacity has continued.

An example is the RAND Corporation's *The Science of Gun Policy*, second edition[20]: "While dozens of peer-reviewed papers that find that right-to-carry laws reduce violent crime are excluded from their survey of the literature, unpublished non-refereed papers that claim to show these laws increase crime are included."[21]

The *JAMA* editorial[2] used truncated homicide-rate data to portray an epidemic. The full data set is readily available and devastates the epidemic narrative. In the 20th century our nation had at least three extended periods of total homicide rates of 14-18 per 100,000.[22-24] Not by any consensus definition is the current total homicide rate of 10 or 11 an epidemic.

For reference, the *JAMA* editorial[2] cited the Gun Violence Archive,[25] an anonymous[26] and "not affiliated" website that states it is for the use of "advocacy." That source sequesters only news stories, including multiples of a single incident. Expectedly such an unrepresentative selection overestimates sensational fatalities and drastically underestimates non-sensational and non-injurious defensive gun uses (DGUs). To illustrate, the Archive estimates defensive incidents of brandishing a firearm with no resultant injuries at less than 4 percent[27]—quite a dubious factoid (sounds like a fact, but isn't) when compared to numerous peer-reviewed studies showing that an overwhelming portion of DGUs are noninjurious events.[4,5,7]

Editors of medical journals should identify advocates as such. On her personal website, the editorial[2] author, Alicia Ault, identified herself as an advocate serving "the whole D.C. lobbying trade—from medical professional societies and medical device and pharmaceutical makers, to consumer advocates, to hospital and insurance associations."[28] *JAMA* failed to note her advocacy. The *New England Journal of Medicine* (*NEJM*) failed to identify advocacy by authors like Handgun Epidemic Lowering Program's Arthur Kellerman. *Pediatrics* failed to identify advocacy by authors like Handgun Epidemic Lowering Program's Katherine Kaufer Christoffel.

Concealing the advocacy of its writers posing piously as disinterested researchers is precisely the kind of editorial misconduct we have documented[4,5,7] and still expect of *JAMA*, *NEJM*, and *Pediatrics*. We would be unsurprised if those periodicals revised their style manuals to insist that "gunviolence" is one word, as though one cannot exist without the other. To be clear, we have no objection to advocacy per se, but object when such advocacy is concealed.

Unless identified in refereed journals as such, we object to anonymous sources, such as the Gun Violence Archive. We recognize advocacy as a potential conflict of interest that editors should reveal to readers. Our group, Doctors for Integrity in Public Policy (DIPP), having criticized high-profile editorial misconduct and the scientific incompetence those editors publish and tout, freely stipulates here and now that we advocate effective public policies to reduce violence, especially non-governmental interventions.[5]

The medical literature, unlike the criminological literature, frequently blinds itself to racial disparities in rates of all violence, including gun violence. Denial or concealment of racial disparities obstructs solutions to the enormously disproportionate rates of homicide and every other type of violence in black urban communities. Homicide rates fractionated by race show consistently high rates for blacks

(typically 30-40 per 100,000, but in some locales well past 200), swamping the consistently low rates (5-7) for whites.[4] Black males between ages 15 and 24 had a gun homicide rate more than 20 times higher than white males of the same age group in 2019.[29] In view of high gun ownership by whites, but low-violence, do the data really suggest a gun problem? Or a gun solution? No.

As we pointed out in 1994,[4] *NEJM's* undeservedly vaunted Seattle-Vancouver study[30] collapsed under analysis. The touted differences were not due to guns, but due to the different racial profiles of the cities. Especially embarrassing to Kellerman and his co-authors' conclusions and unmentioned in their article, the Vancouver homicide rate increased 25 percent after the institution of the 1977 Canadian handgun ban.[4]

Displaying an instance of candor, Jerome Kassirer, then editor-in-chief of *NEJM*, boasted of his "no data are needed" editorial policy.[31] Later he suggested that if his proposed gun controls are ineffectual, then "we would be justified in supporting even more stringent restrictions."[32] If a little arsenic doesn't cure syphilis, should more arsenic be used?

As we also pointed out in 1994,[4] "Errors of fact, design, and interpretation abound in the medical literature on guns and violence." The state of that medical literature was—and remains—abysmal. The pervasive problems continue to include:

- an utter failure to honestly assess legitimate defensive gun use;
- a pervasive mistaken assumption that, even though guns meet none of Koch's Postulates, a medical epidemic model should be used to address an endemic criminological problem;
- cherry-picking of truncated data sets and manipulation of study periods to claim efficacy of the authors' preconceived notions;
- promotion of defective factoids ("43 times," "2.7 times," "guns in the home," etc.) unworthy of sober science or public policy; and
- flawed methodology and interpretation (describing, but not utilizing, correct methodology; failure to address inconvenient refereed literature; citing convenient non-refereed articles; finding portent in odds ratios too low to be significant; ignoring research on homicide and suicide method substitution; absurd watermelon test-shot "wound" ballistics; ignoring consequential racial and economic differences among studied populations; and inappropriate control groups—among others).

If anything, the 20 years lamented by *JAMA*[2] have underscored that in the service of an agenda:

- No lie is too transparent to tell it.
- No junk science is too flawed to tout it.
- No intervention is too draconian to enact it.

The incompetence and mendacity illustrated above are representative of the wider problems in the medical literature: advocacy bias, conflicts of interest, financial and other misguided incentives. In highlighting the examples, we hope to encourage readers to recognize and editors to correct the problems. Let us aim to reduce all violence, not just gun violence.

Finally, a word to the most incorrigible offenders—medical errors kill and injure more people than violence from every cause.[33] We suggest, as before,[5] that efforts would be better directed in remedying that endemic problem, death and injury from medical error.

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