Do Wounded Criminals Get Medical Treatment?

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January 24, 2019

Abstract

Criminals who suffer gunshot wounds that are not life-threatening may avoid medical treatment because medical personnel are legally required to report the treatment to police, which is likely to lead to a police interrogation as to how the patient received the wound. Two studies of jail inmates, however, indicated that, among those who admitted to having been shot, nearly all claimed to have gone to a hospital for treatment (May, Hemenway, Oen, and Pitts 2000; May, Hemenway, and Hall 2002). This critique outlines why this finding cannot be relied upon: the exact same reasons criminals would have for not seeking medical care for nonlife-threatening gunshot wounds would also be reasons for them to either (a) not report the gunshot wounding incidents to jailhouse interviewers, or (b) admit to the wounding, but falsely claim that they had sought medical care. Suggestions are made to improve methods for addressing this issue.

Introduction – The Issue

In 1997 Kleck pointed out that criminals who were wounded by their victims while attempting to commit crimes against those victims have powerful reasons not to seek professional medical care if the wounds they suffered could be safely self-treated – medical personnel are legally required to report the shooting to the police, who would want to know how the patient had suffered the gunshot wound. He also noted that the medical literature on gunshot wounds indicated that most of the wounds were not only nonfatal, but also needed no more medical care than the average nonmedical amateur could provide. Thus, most gunshot wounds were probably survivable without professional medical care such as that provided by hospital emergency departments. On the assumption that criminals would want to avoid contact with the police, he concluded that many criminals would not seek professional medical care, leading to a serious underestimation of the frequency of nonfatal gunshot woundings, if one relied exclusively on data concerning medical treatment (Kleck 1997, pp. 3-5).

This issue is important for two reasons. First, estimates of the harm done with firearms include estimates of the number of nonfatal injuries inflicted with guns, and the most complete counts of nonfatal gunshot wounds (GSWs) derive from data on GSWs treated in hospital emergency departments (EDs, rather than police records or the National Crime Victimization Survey (Cook 1985). The CDC WISQARS database generates estimates of nonfatal injuries from records of treatments of GSWs in national probability samples of EDs (Centers for Disease Control and Prevention 2019). Therefore, the harm done with firearms is underestimated to the extent that these medical records understate the number of nonfatal GSWs.

Second, fatality rates of GSWs – that is, fatal injuries/(fatal + nonfatal injuries) – are distorted to the extent that nonfatal injuries are miscounted. More specifically, if fatal firearm injuries are counted fairly accurately, but nonfatal injuries are undercounted, the fatality rates will be overstated. Worse still, if the degree of undercounting on nonfatal GSWs differs over

time or across areas, it will be correspondingly hard to judge trends or cross-area differences in fatality rates.

The May et al. Jail Surveys

A survey of inmates in a D.C. jail done by May, Hemenway, Oen, and Pitts (2000) indicated that, among those who admitted to having been shot, 92% reported having gone to the hospital for treatment. In a similar later study (May, Hemenway, and Hall, 2002), 91% of jail inmates who had been shot claimed to have received treatment at a hospital.

To properly understand these results, it is necessary to first consider the context in which the surveys were conducted, especially the legal situation of jail inmates who responded to the surveys. Most jail inmates are awaiting trial, and are therefore the most legally vulnerable of all criminals. Uncaught criminals are not facing the immediate prospect of legal punishment, while prison inmates have already been sentenced so their punishment has been established. In contrast, the punishment that jail inmate will receive is still to be determined – "the hammer has not yet come down." This is a set of criminals who are especially concerned with not looking any more criminal to the authorities than their official record already indicates them to be.

Further, the personnel interviewing jail inmates necessarily must have secured the approval of the jail authorities to conduct the interviews, a fact that would be obvious to those questioned. Thus, it would hardly be unreasonable if suspicious inmates feared that jailer-approved interviewers might share some of their findings with jail authorities, notwithstanding researchers' assurances of confidentiality.

Why would some criminals who suffered a gunshot wound (GSW) might want to avoid professional medical treatment? Medical personnel in at least 41 states, and the District of Columbia, are legally obliged to report their treatment of gunshot wounds (GSWs) to the police (Houry et al. 2002). Further, medical personnel do obey this legal obligation (Kellermann, Rivara, Lee, Banton, Cummings, Hackman, and Somes 1996, p. 1443). Therefore, people who

seek treatment for a GSW at a hospital emergency department (ED) can reasonably expect to be questioned by police (usually those on duty at the hospital) as to how they came to be shot.

Noncriminals who were innocent of any wrongdoing would have little to fear from talking to police and sharing the details of the incident in which they were shot. The situation is quite different for criminals. First, if they were committing a crime when they were shot, this would be a powerful reason for avoiding a police interrogation about the event. Consider a criminal who was shot by a storekeeper during a robbery attempt, and who went to a hospital ED for treatment. Even the busiest urban EDs rarely treat more than one or two people of a given sex, race, and approximate age in a given night, so if the shopkeeper had given police a description of the robber he believed he had shot, police who questioned a GSW patient who matched that description could be fairly confident that they had found their robber. The result of seeking medical treatment in such a case would probably be arrest and a prison sentence.

Second, criminals who were not committing a crime when they were shot, but were wanted by the police for other offenses, would likewise want to avoid contact with police officers under any circumstances, whether in a hospital or not. Thus, criminals who were shot would have strong reasons to avoid professional medical care if possible, and to instead make do with self-treatment or treatment by trusted intimates. This course of action would be risky on purely medical grounds, and could be virtually suicidal with regard to life-threatening GSWs. Most GSWs, however, are not life-threatening. Even among the presumably more serious wounds for which the victim did receive professional medical care, most are rated by medical personnel as less serious than life-threatening. First, about half of medically treated GSW patients are handled on an outpatient basis in the ED rather than being admitted to the hospital (see studies reviewed in Kleck 1997, p. 4), and even among the more seriously wounded patients admitted to the hospital ("hospitalized"), most suffer from wounds rated less serious than life-threatening. A study of a large representative sample of California hospitalized patients

suffering from GSWs applied the six-point Abbreviated Injury Severity scale, and found that just 1% of the GSWs were rated as "unsurvivable," 5% as "life-threatening," and 8% as "severe." The remaining 86% were rated "major" (31%), "moderate" (43%), or "minor" (13%) (Vasser and Kizer 1996, p. 1737). And among the roughly half of GSW patients who receive only treatment in the ED, life-threatening wounds are even less common. It is among these victims of less serious GSWs where one would be more likely to find criminal victims willing to undergo the medical risks of amateur treatment, if professional treatment carried with it the risk of arrest and imprisonment.

Further, research on the medical treatment of those GSWs that *are* handled in EDs indicates that the specific techniques applied are commonly limited to relatively simple procedures of the sort that amateurs could also apply, albeit perhaps less skillfully. Contrary to movie portrayals, ED doctors rarely extract bullets from outpatients, give them blood transfusions, or close the wounds with sutures. GSW patients requiring these more serious treatments are instead typically admitted to the hospital (i.e., become "inpatients"). The less serious GSWs handled in the ED are more typically treated by rinsing the wound with an iodine solution or some similar antiseptic, applying a topical antibiotic like Neosporin, and covering the wound with a sterile dressing (Ordog, Sheppard, Wasserberger, Balasubrmanian, and Shoemaker 1993, p. 361) – actions that victims or their trusted associates are likely to be capable of carrying out.

Most treated nonfatal GSWs were inflicted in assaults. The national study by Annest Annest et al. (1995, p. 1752) found that 70% of nonfatal firearm injuries treated in hospital EDs were the result of assaults. How common are criminals among the people who are shot in violent crimes? If few GSW victims were criminals, few would have any reason to avoid hospitals and thereby avoid contact with police. McGonigal, Cole, Schwab, Kauder, Rotondo, and Angood (1993, p. 534) found that 67% of the victims of firearms homicides had an arrest record, with an

average of four arrests on eleven criminal counts. In 2018 in Baltimore, 84% of homicide victims had a criminal history (Anderson 2019). This pattern is not limited to victims of fatal firearms violence. In Milwaukee in 2015, not only did 83% of homicide victims have a criminal history, but 77% of nonfatal shooting victims did as well (Milwaukee Homicide Review Commission 2012). Thus, the vast majority of victims of criminal firearm violence have prior criminal records and are therefore more likely than the average noncriminal person to have reasons to avoid contact with the police.

In sum, (1) most nonfatal firearm injuries are linked with assaults, (2) most victims of assault-linked GSWs are criminals, (3) medical personnel tell police when they treat a GSW, and (4) most GSWs are probably survivable without professional medical, so victims of most GSWs could substitute amateur treatment without risking certain death, notwithstanding the medical inadvisability of doing so. In this light, there is surely reason to be skeptical of a claim that virtually all criminals obtain professional treatment of their GSWs. Nevertheless, more than 90% of the jailed criminals who had suffered GSWs studied by May and his colleagues claimed that they had obtained medical care at a hospital. In light of the foregoing, is it possible a substantial share of the jail inmates misled the researchers?

Methods of the May et al. Study

May and his colleagues depended entirely on criminals' statements concerning whether they had been shot and, if so, whether they obtained professional medical treatment for the GSW. They did not validate any of the inmates' claims of treatment by checking hospital records Why might reliance on self-reports be problematic in this context?

Consider a jail inmate who had been shot, but did not seek medical treatment. When such an inmate was asked by an interviewer whether he had ever been shot, either of two things could happen. The inmate could either (1) accurately answer "yes," or (2) falsely deny having been shot. Some inmates would deny having been shot for the same reason that they did not

seek medical treatment - they feared that telling jail-approved researchers about their wounding could be used to connect them to the crime they were committing when they were shot.

In the May et al. survey, inmates who falsely denied experiencing a gunshot wounding were, understandably enough, not asked the follow-up question, "Did you go to the hospital for treatment of that wound?" They were simply excluded from the authors' computation of the percent of gunshot-wounded inmates who had sought hospital care, lumped in with inmates who accurately stated that they had never been shot. This means that the set of inmates asked whether they had gotten medical treatment was necessarily a censored sample, because some of the inmates who had been shot while committing a crime and who did not seek hospital treatment were censored out of the subsample used to produce the 92% treated rate.

This censoring would tend to leave inmates who been shot in less incriminating circumstances and who therefore had less reason to avoid going to the hospital. Even criminals can be relatively innocent victims of other criminals' violence. It would therefore not be surprising if many of this sort of jail inmate really had obtained medical treatment, since inmates who had been relatively "innocent victims" of gun violence have less reason to avoid hospital treatment. This censored sample, however, cannot provide a meaningful estimate of the share of *all* criminals who are shot who receive hospital treatment.

Now consider inmates who *did* accurately report having been shot, but who did *not* go to the hospital. These inmates may have been willing to report that they had been shot because they did not anticipate the interviewer asking any follow-up questions, such as the one concerning medical treatment. Unfortunately for them, they *were* then asked whether they went to the hospital to get treated. At that point, such an inmate could either accurately answer "no" (he had not gone to the hospital) or lie and answer "yes." How is such an inmate likely to perceive the option of honestly reporting that they did not seek medical treatment for a gunshot wound? There is no legitimate reason why an innocent noncriminal victim of a gunshot wound

would forego professional medical treatment. The only medically sensible step is to seek professional treatment of the injury. Only a person with something to hide from the police would have any reason to avoid going to the hospital. The inmate presumably knows this, and knows that the surveyors know it as well. Many such inmates might even anticipate that, if they did admit avoiding medical treatment, the interviewer's next question could well be "Why didn't you seek medical treatment?"

How likely, then, is it that this jail inmate, in these legally vulnerable circumstances, would honestly report that they had not sought profession medical treatment? Doing so could be tantamount to confessing to yet another crime that the authorities did not yet know the inmate had committed. There would be a powerful motivation for the inmate to falsely answer "Yes," and no strong motivation to accurately answer "No," beyond the inmate's commitment to the moral norm that one should not lie - a commitment that is likely to be lower in a sample of criminals than in the population as a whole.

In sum, (1) the subsample of jail inmates who were willing to admit to having been shot is likely to have excluded many of those who were in fact shot but had avoided hospital treatment, and (2) among those who admitted having been shot (but had not actually sought medical treatment), few would be foolish enough to admit they had not obtained medical treatment. Consequently, the claim that 92% of the inmates who had been shot had gone to the hospital should be taken with a big grain of salt.

Further Evidence

Even among gunshot woundings that the police know about, many are not recorded in emergency department records. Lee, Waxweiler, Dobbins, and Paschetag (1991) attempted to compile a comprehensive list of all nonfatal gunshot wound victims in Galveston, Texas, using police, emergency department, and hospital records. While 98% of all nonfatal woundings (identified through all sources combined) were recorded in police files, only 82% could be found

in hospital records. Unless medical personnel were grossly negligent in recording treatment of gunshot wounds, this implies that at least 18% of nonfatal gunshot wounds were not treated in a hospital. These figures applied to wounds inflicted in connection with attempted suicides and accidental shootings, as well as those inflicted in connection with assaultive or defensive uses. If victims avoiding medical treatment are primarily found in the latter group, the share of untreated gunshot wound victims who avoided treated would be even greater than 18%.

Finally, David Hemenway conducted a national survey of the general adult population in which he asked respondents whether they had been shot. Those who responded "yes" were then asked "Did you receive professional medical treatment for your wound?" My analysis of these data found that 15 people reported that they had been shot in the previous five years, two of whom had been wounded while in the military or a police force. Of the remaining 13, only seven claimed that had received "professional medical treatment," all at hospitals, five said they had not received such treatment, and one declined to provide an answer (Hemenway 1999, frequencies for variables N7 through N10). This subsample of GSW victims was obviously small, but it indicates that even if one accepted as accurate all claims to have received medical treatment, the total number of GSW victims (n=13) was 1.9 times as large as the number treated in hospitals. Hemenway did If this large a share of a sample of the general population who had suffered a gunshot wound avoided medical treatment, the share of criminals who did so would presumably be even larger.

Conclusions

The implicit underlying assumption of May and his colleagues was that they could expect truthful answers from jail inmates who had powerful reasons to be *un*truthful. To be sure, those who had been shot as innocent victims could afford to seek hospital treatment and to be truthful about reporting such treatment when interviewed. These inmates presumably account for a large share of the inmates who reported going to the hospital. In contrast, it is unrealistic to expect

truthful answers from those who were shot while committing crimes that the authorities did not already know the inmate had committed. Although inmates have no reason to conceal crimes that the authorities already know about, crimes for which the offender was never arrested are another matter entirely.

This research was doomed from the beginning. If it was correct that many wounded criminals avoid professional medical care because they don't want the police to find out about the crime they were committing when shot, it would be impossible to test it by merely asking the criminals whether they obtained medical care. The very same reasons that motivated them to avoid hospital care would also motivate them to lie in a jailhouse survey about having been shot and getting hospital treatment.

A Modest Suggestion

The study could have been done in a more informative way, but it would have required considerably more researcher effort. Each criminal who claimed to have received medical care at a hospital could have been asked to identify the hospital where this medical care had been delivered. Even if a criminal could not remember the hospital's name, hospitals are sufficiently rare that even the approximate location would be sufficient to identify the hospital. The criminal should also be asked the approximate date when the treatment was received, as best the inmate could recall it. As it was, the researchers did elicit many details of wounding incidents, including the body part where the wound had been inflicted. The records of the relevant hospitals could then be checked to determine whether anyone fitting the inmate's general description (sex, race, approximate age) had been treated for a gunshot wound to the reported body part at that hospital, on or about the date of the claimed treatment. Medical confidentiality laws would not preclude such a validity check since it would not be necessary to search hospital records for named individuals. Even busy urban hospitals do not average more than a single gunshot wound per day, and it would be rare indeed that they treated more than one GSW patient

of a given sex, race, and age range on any given day. For example, even in the high-violence city of D. C., during the peak violence period of 1983-1990, the hospital that handled 30-40% of the city's adult GSW patients averaged less than one GSW case per day (Webster, 1992). Therefore, hospital location, approximate date of treatment, body part wounded, and sex, race, and age of the patient would normally be ample to uniquely identify GSW victims who had in fact been treated.

May and his colleagues did not do any validity checks of this or any other type, effectively accepting at face value the statements of criminals with strong motives to lie. If the validity check outlined here were carried out, I predict that it would show that most of those who told interviewers that they had been treated at a hospital had not in fact received any such treatment.

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