

Impact of Covid-19 on Firearm-related Deaths in Varanasi Region: A comparison in trend from 2017-mid-2021

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ABSTRACT

The present study was conducted to determine any change in the pattern of fatal firearm cases in Varanasi district, India, which could be linked to the Covid-19 pandemic. The impact of Covid-19 on psychological and sociological aspects has been explored by many studies done across the world; however, the impact of the pandemic on homicides and crime rates still requires further research worldwide as well as in our region. A total of 128 cases from a span of four and a half years have been taken into consideration. These cases were brought to the mortuary of the Department of forensic medicine, Institute of Medical Sciences, Banaras Hindu University. When the data for the last three years, i.e., from the year 2017 to the year 2019, was compared with the trend of data from the years 2020 and 2021, a rise in cases of suicides was observed in 2020 with no substantial rise in homicides through the firearm. Further studies and deeper insights are required in such studies as it will help the law enforcement agencies get a clearer picture of the rise in homicides through firearms and highlight the issue of using unlicensed firearms in our region. This will communicate the urgent need to inculcate new and stricter laws and implement the amended ones to tackle the problem efficiently.

Keywords: Ballistics, Covid-19, Firearms, Forensic Science, Homicides.

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INTRODUCTION

From the day, i.e., 30th January 2020 when the first case of confirmed Covid-19 came to light in Kerala¹ in the country to the ongoing second wave of the pandemic in India, the pandemic has had a profound effect on everything around humans. Covid-19 has claimed more than 4,743,016 lives to date.² multiple studies show the profound effect of Covid-19 on psychological and sociological aspects. The studies highlight that the Covid-19 pandemic, quarantine, and social distancing are associated with stress, anxiety, insomnia, panic, domestic abuse, and enhanced existing psychiatric disorders.³ It is no surprise that the distress of the pandemic has caused increased suicides worldwide.^{4,5} although the effect of Covid-19 on homicides has still not been studied in detail. India is known to have one of the strictest laws on firearms, but that does not deter their purchase as 85% of firearms owned by civilians are illegal.⁶ According to the Institute for health metrics and evaluation report, in 2016, 26,500 deaths were attributed to firearms.⁷ According to National crime record bureau, a total of 448,323 cases were registered for violation of the arms act under special and local laws in the year 2019, and shockingly out of these, 44,513 cases involved illegal and unlicensed firearms. Uttar Pradesh has the highest number of firearm-related crimes with 33013 cases, followed by Madhya Pradesh (15,336) and Rajasthan (7,074).⁸ Our study aims to outline the pattern of firearm-related deaths in the Varanasi region and compare the pre-Covid-19 data with the data collected during the pandemic.

MATERIAL AND METHOD

An observational study was carried out on firearm fatalities brought to the mortuary of the Department of Forensic

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Medicine, Institute of Medical Sciences, Banaras Hindu University, from January 2017 to June 2021. The cases brought to the departmental mortuary were recorded. The relevant questionnaire was prepared to collect data about firearm fatalities. The cases were studied to obtain a history of the deceased. The various data-related sources are as follows.

- Analysing the inquest report and accompanying documents.
- Interviewing the Investigating officer assigned to the case.
- Interviewing the deceased's family members, relatives, and the known.
- Autopsy Report.

OBSERVATION AND RESULT

During the study, a total of 128 fatal firearm injury cases were brought to the department's mortuary. Out of this, one case of mistaken identity and three cases of encounters have not been taken into account in this study. These two categories have been excluded as they do not have a criminal motive behind them. The intention was not to kill the intended person for personal gain. Therefore only 124 cases have been included in the study

Table 1 shows the total number of firearm-related deaths from 2017 to mid-2020. As per the data for four and a half years, the maximum number of cases were observed in 2018. In the year 2020, when the first wave of corona struck the world, despite the complete lockdown imposed in our country from 25th March till 8th June 2020 and phasic reopening of lockdown from 9th June to 1st July 2020, the number of cases has not fluctuated much a total of 25 cases were brought to the mortuary in 2020 which is equal to the number of post-mortems conducted on firearm victims in 2017.

Table 2 indicates the total number of firearm-related death during the lockdown period. As per the data, out of 128 cases studied, only 8 were suicides. The maximum number of suicides through firearms have been observed in the year 2020 during the Covid-19 outbreak.

Table 3 specifies the total number of firearm-related deaths that occurred when Covid-19 was at its peak, and the government had imposed strict stay-at-home orders.

Table 4 enumerates the total number of deaths by the use of shotguns, considering that the use of shotguns for suicide and homicides is very uncommon in this part of our country.

DISCUSSION

A firearm is perhaps the most lethal device possessed by a man in day-to-day life. Gun violence is considered one of the greatest public health crises of our time, and the incidents of firearm injuries are on the rise worldwide.^{9,10} It was revealed by the Institute for health metrics and evaluation in 2016 that India ranked third worldwide in deaths due to firearms.⁷ In our study, we found out that despite the fear of Covid-19 and the stay-at-home order of the government, no drop in the deaths per year due to a firearm was observed. In 2021 itself, 16 cases have already been reported in 6 months, i.e., from 1st January 2021 to 1st July 2021. The second wave of the pandemic, which started in mid-March 2021, crushed India and its healthcare system; with no beds available in hospitals, the oxygen crisis still could not impact the firearm deaths in the region under our study, as depicted in Table 2, the rate of a firearm involving deaths decreased during the complete lockdown period, but the

statistics regained its normal value once the complete lockdown was lifted. This dip was due to very strict enforcement of stay-at-home orders by the government. However, the maximum number of cases were reported in the year 2018.

According to a study conducted in the USA by Hatem O Abdullah *et al.*, there was a rise in intentional violent injury,

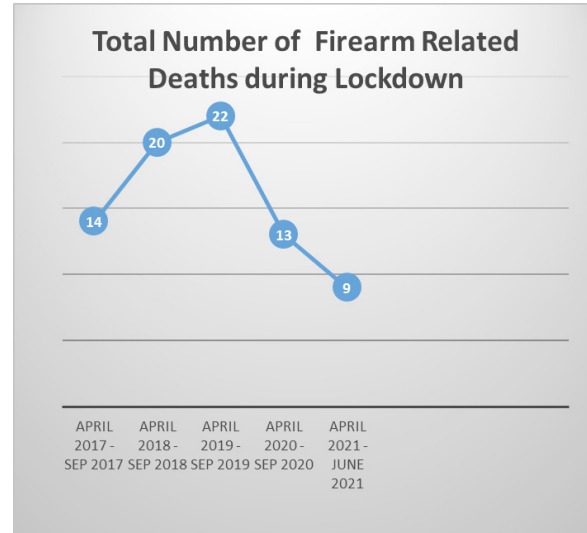


Fig 2: Total number of firearm related deaths during lockdown

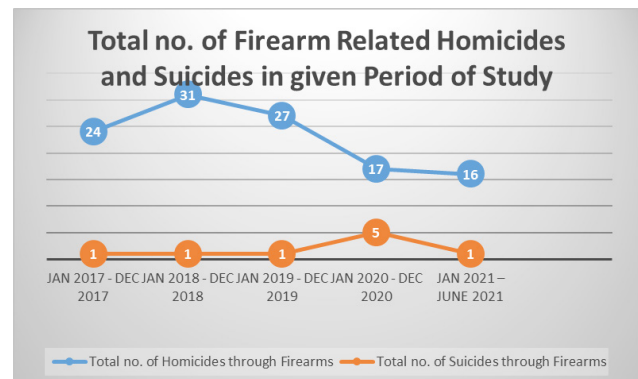


Fig 3: Total no. of firearm related homicides and suicides in given period of study

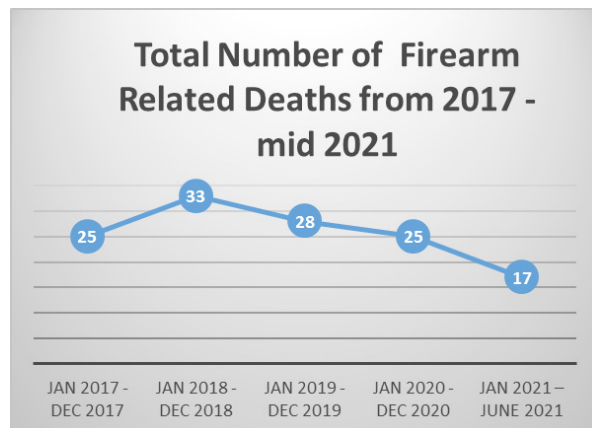


Fig 1: Total Number of firearm related deaths from 2017-mid 2021

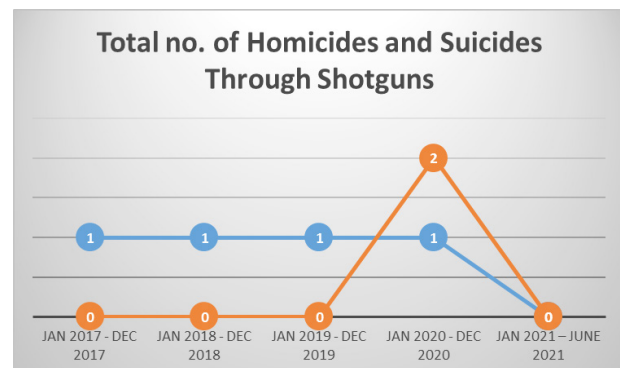


Fig 4: Total no. of homicides and suicides through shotguns

particularly firearm violence, during the Covid-19 period, specifically in the young black population.¹¹ The USA also saw a record-breaking sale of a firearm during the Covid-19 crisis. The main reason being cited was self-protection and protection of family.¹² Jose Roberto Balmori de la Miyar et al., in their study conducted in Mexico, concluded that though there was a decrease in vehicle theft, burglary, and domestic violence, there was no effect on homicides and kidnapping.¹³ Contrarily a study conducted in Greece, there was a drop in cases of homicides and suicides observed in the year 2020.¹⁴ Furthermore, when crime trends in Wales and England were studied, a drop in violent crimes was observed.¹⁵

In our region, suicide through firearms is rare, as depicted in Table 3. In 2020, a marked increase in suicide through firearms was observed. The motives behind the suicide were financial debt in two cases, depression and strain in family relations in one, and loss of job followed by deceit in love in the other two cases. This pattern indicates how Covid-19 took a toll on mental health of people. With no jobs and an increasing financial burden. Covid-19 not only became a health crisis but also weakened society's already fragile socio-economic sections. They had to suffer from a lack of resources as well as support from the stronger section of society.^{16,17}

A study assessing the causative factors that promote suicide inferred that the maximum number of suicides were due to terror of contracting Covid-19, and then the second highest suicides were due to financial crisis.¹⁸ Though none of the suicides in our study was due to the fear of disease. The financial crisis was the prime factor observed in our study. Our study found that the victims were all young to middle-aged men. The shotguns used in both the suicides through shotgun were licensed. This points toward the fact that the financial load bourn by the bread bearer of the family was so immense during the pandemic that it led to suicides.

The use of shotguns for homicide or suicide is extremely rare in our region. Shotguns are primarily used in celebratory fires in this part of India and usually account for accidental deaths at celebratory gatherings. Many homes in this region possess double-barrel or single barrel 12 bore shotguns. These guys have been in the families for decades (for protection of crops and protection against dacoit) or have been bought as mere show off at family weddings and celebratory occasions. During the stay-at-home orders, people committing suicide opted for these guns to take their lives.

It would be wrong to say that the government of India is paying a blind eye to the situation. The arms (Amendment) bill was introduced in Lok Sabha in November 2019. This bill was proposed to amend section 25 (1AA) of the Arms Act, 1959. The punishment for manufacturing, repairing, possessing, and selling the "prohibited" arms was increased from the term of fourteen years to "life imprisonment". The minimum punishment allotted for this crime is fourteen years. This was done because more than 80% of firearms possessed by civilians of India are illegal. The arms (amendment) Bill, 2019 also ensures that firearms use for negligent acts like celebratory firing is punished with imprisonment of two years or fine or

both. The fine imposed may be up to Indian Rupees (INR), 100000. The bill has also reduced the maximum number of firearms a person could possess from three to two.¹⁹

CONCLUSION

This era of Covid-19 has created fear, anxiety, and terror of uncertainty in people, but it did not stop criminals from committing the crimes. Apart from fighting the health crisis, shortage of medical facilities, uncountable deaths, and struggle to keep the nation together, the government also needs to pay attention to the violent crimes that occur so frequently. As the nation is already overwhelmed by the number of lives lost at the hands of Covid-19, the nation cannot afford to lose more people who would have helped in building the nation. The government had amended the arms act and reduced the number of arms per license but is that enough? These amendments do not stop illegal firearms from being manufactured or purchased. Though the punishments have been made stricter by increasing the number of years in prison and fines imposed, no improvement in deaths due to firearms in our region has been observed so far. Even the pandemic could not slow down its pace. Though this pandemic has had a colossal impact on the world but has failed to generate any significant impact on lowering the rate of crime. The government needs not only to form new and stricter laws but also make sure that they are implemented with full force to reduce crimes through firearms.

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REFERENCES

1. Perappadan BS. India's first coronavirus infection was confirmed in Kerala. The Hindu. <https://www.thehindu.com/news/national/indias-first-coronavirus-infection-confirmed-in-kerala/article30691004.ece>. Published 30th January 2020. Accessed 25th October 2020.
2. COVID Live Update: 173,779,274 Cases and 3,737,815 Deaths from the Coronavirus - Worldometer. www.worldometers.info. https://www.worldometers.info/coronavirus/?fbclid=IwAR35ZFIRZJ8tyBCwazX2N-k7yJjZOLDQIZSA_MsJAFdK74s8f2a_Dgx4iVik
3. Sher L. The impact of the COVID-19 pandemic on suicide rates. *QJM: An International Journal of Medicine*. 2020;113(10). doi:10.1093/qjmed/hcaa202
4. Agoramoorthy G, Hsu MJ. How the Coronavirus Lockdown Impacts the Impoverished in India. *Journal of Racial and Ethnic Health Disparities*. Published online 26th October 2020. doi:10.1007/s40615-020-00905-5
5. Khan AR, Shimul SMAK, Arendse N. Suicidal behaviour and the coronavirus (COVID-19) pandemic: Insights from Durkheim's sociology of suicide. *International Social Science Journal*. Published online April 2021. doi:10.1111/issj.12269
6. Sharma R. Guntantra: Are India's Strict Gun Laws Any Deterrent? News18. Accessed 18th June 2021. <https://www.news18.com/news/immersive/guntantra-guns-in-india.html>



7. Sharma V. India's gun control menace: Over 26,000 firearm-related deaths in one year and counting. *www.timesnownews.com*. Published 3rd August 2019. Accessed 18th June 2021. <https://www.timesnownews.com/mirror-now/in-focus/article/india-s-gun-control-menace-over-26000-firearm-related-deaths-in-one-year-and-counting/468466>
8. Crime in India 2019 | National Crime Records Bureau. *Ncrb.gov.in*. Published 2019. <https://ncrb.gov.in/en/crime-india-2019-0>
9. Amnesty international. Amnesty International. *Amnesty.org*. Published 2012. <https://www.amnesty.org/en/what-we-do/arms-control/gun-violence/>
10. Naghavi M, Marczak LB, Kutz M, et al. Global Mortality From Firearms, 1990-2016. *JAMA*. 2018;320(8):792. doi:10.1001/jama.2018.10060
11. Abdallah HO, Zhao C, Kaufman E, et al. Increased Firearm Injury During the COVID-19 Pandemic: A Hidden Urban Burden. *Journal of the American College of Surgeons*. 2021;232(2):159-168.e3. doi:10.1016/j.jamcollsurg.2020.09.028
12. Khubchandani J, Price JH. Public perspectives on firearm sales in the United States during the COVID-19 pandemic. *Journal of the American College of Emergency Physicians Open*. 2020;2(1). doi:10.1002/emp2.12293
13. de la Miyar JRB, Hoehn-Velasco L, Silverio-Murillo A. Druglords Don't stay at home: COVID-19 pandemic and crime patterns in Mexico City. *Journal of Criminal Justice*. 2020;72:101745. doi:10.1016/j.jcrimjus.2020.101745
14. Sakellidis EI, Katsos KD, Zouzia EI, Spiliopoulou CA, Tsiouodras S. Impact of Covid-19 lockdown on characteristics of autopsy cases in Greece. Comparison between 2019 and 2020. *Forensic Science International*. 2020;313:110365. doi:10.1016/j.forsciint.2020.110365
15. Langton S, Dixon A, Farrell G. Six months in pandemic crime trends in England and Wales. *Crime Science*. 2021;10(1). doi:10.1186/s40163-021-00142-z
16. Socio-economic impact of COVID-19. United Nations Development Programme. Accessed 18th June 2021. <https://www.undp.org/coronavirus/socio-economic-impact-covid-19>
17. Dsouza DD, Quadros S, Hyderabadwala ZJ, Mamun MA. Aggregated COVID-19 suicide incidences in India: Fear of COVID-19 infection is the prominent causative factor. *Psychiatry Research*. 2020;290:113145. doi:10.1016/j.psychres.2020.113145
18. Druzin H. Experts Concerned About Heightened Suicide Risk During Pandemic. *WAMU*. Published 20th March 2020. Accessed 9th August 2021. <https://wamu.org/story/20/03/20/suicide-social-isolation-firearms-coronavirus/>
19. Garg R. Understanding recent amendments to the Arms Act, 1959. *PRS Legislative Research*. Published 5th December 2010. Accessed 12th August 2021. <https://prsindia.org/theprsblog/understanding-recent-amendments-arms-act-1959>