

# Overview of the Suicide Situation in Uttar Pradesh

Shubhkarman Singh Saini<sup>1\*</sup>, Nitish Verma<sup>2</sup>, Ram Mehar Sheoran<sup>3</sup>, Sakshi Sharma<sup>4</sup>,  
Brijesh Saran<sup>5</sup>, Aarushi Batra<sup>6</sup>

<sup>1\*,2,3,4</sup>Junior Resident, Department of Psychiatry Santosh Deemed to be University, Ghaziabad, NCR Delhi, 6 MBBS final year, LLRM Medical College Merrut, UP

<sup>5</sup>Assistant Professor, Department of Psychiatry Santosh Deemed to be University, Ghaziabad, NCR Delhi, 6 MBBS final year, LLRM Medical College Merrut, UP

Corresponding Author: <sup>1\*</sup>Shubhkarman Singh Saini

## ABSTRACT

Suicide has become an increasing worry in the modern era. The suicide rate is increasing globally, and India is no exception. As suicide is a preventable cause of mortality, it necessitates more attention, early intervention, and effective coping mechanisms. This article attempts to assess the situation of suicide in Uttar Pradesh(U.P), the most populous state in India, by analysing data from PubMed, Science Direct, and Cochrane Library, as well as incorporating national records. U.P. is responsible for 3.9% of all suicides in India. According to the 2011 census, the majority of suicides in Uttar Pradesh occurred among individuals under 45 years of age, and more women than men committed themselves. According to recent research, family issues are the top reason of suicide, while hanging is the most common method. This article attempts to shed light on the recent impact of the pandemic, COVID 19, on suicide and explores specific preventive tactics to combat the state's escalating suicide burden.

**Keywords:** Suicide, U.P., Epidemiology, Mental Health

## 1. INTRODUCTION

Suicide is a global occurrence, accounting for 1.4% of deaths worldwide, with 79% of these deaths happening in low- and middle-income nations. While Suicide is frequent across all age groups; one person commits suicide every 40 seconds, making it the second highest cause of death among 15- to 29-year-olds [1]. Suicide rates in India, a country with a lower-middle income and a total youth population of 34.8%, are exceptionally high. In 1984, approximately 50,000 people committed suicide (50,571, or 6.8 per 100,000), however in 1994, this number increased to 90,000 (89,195 or 9.9 per 100,000). Nearly one hundred thousand Indians commit suicide annually, accounting for twenty percent of the global suicide population[2]. The National Crime Records Bureau (NCRB) has recorded a rise in the suicide rate over the past several decades, with the suicide rate in 2019 standing at 10.4. During 2019, a total of 1,39,123 suicides were reported, a 3.4% rise from 2018, while the suicide rate climbed by 0.2% [3]. Roughly 16.50% of India's population, or 199.8 million people, dwell in one of India's largest states, Uttar Pradesh(U.P) [5]. Given that it has the greatest population,

The demographics and suicide risk factors of a particular Indian state would have a significant impact on the suicide rate of the entire country. Currently, Uttar Pradesh ranks 27th in India in terms of the incidence of suicide [3]. However, it is considered that this low suicide rate is due to an underestimation of suicide cases in Uttar Pradesh [6]. Therefore, additional research is required to determine the exact suicide burden in Northern India, particularly in heavily populated regions such as Uttar Pradesh, which will have a substantial effect on the country's health status. Life satisfaction and happiness have a significant impact on the suicide rate of a society[7]. U.P. has several risk factors for the low quality of life and happiness index, thereby being highly predisposed to high suicide rates due to problems such as high unemployment, high poverty resulting in an increased socioeconomic burden, more significant mental and physical abuse, and being the most orthodox and marginalised population.

The marginalised population possesses a number of risk factors for a low quality of life and happiness index, and is therefore highly suicidal. The purpose of this article is to provide an overview of the existing data on suicide in Uttar Pradesh and to shed light on the prevalence, demographic distribution, methods of suicide, risk factors, and preventive measures, if any, in Uttar Pradesh.

### **Search Strategy**

Using the keyword Suicide, we did a broad search in online research databases (PubMed, Science Direct, and Cochrane Library). It helped to provide context for the review. Then, research consisting primarily on Indian and state-specific data were incorporated. We incorporated both the original English-language studies and the data acquired from national records.

### **Prevalence and Demographic Data**

U.P. with a current population of 199.8 million, reports a suicide rate of 2.4 (Total number of suicides/Mid-year population), which is significantly lower than the national average suicide rate (10.4). Andaman and Nicobar islands, with a population of only 0.4 million, have the highest suicide rate of 45.5%, likely due to a more diligent reporting system monitoring a smaller population with many migration. From 2018 to 2019, the suicide rate in U.P. increased by 12.7%; this is an alarming trend that requires immediate attention. U.P. generates 3.9% of all suicides in India. With a population of 2.92 million, Kanpur has the highest suicide rate in Uttar Pradesh (16.8). This is a remarkable difference given that no other significant city in Uttar Pradesh (Agra, Allahabad, Ghaziabad, Lucknow, Meerut, or Varanasi) has a suicide rate greater than 10 per 100,000 people [3].

### **Risk Factors**

Age, gender, marital status, occupation, and psychosocial stressors are all risk factors. According to the 2011 census, U.P. has the highest rate of suicides. As in the rest of the country, the highest incidence of suicides occurs between the ages of 15 and 29, which is also consistent with the global situation [1-2]. Female suicides (n =117) are more prevalent than male suicides (n = 967), contrary to the general trend in India, where male suicides are more prevalent than female suicides [3]. However, according to a study conducted in Lucknow, males have a greater suicide rate (56.61%) than girls (43.38%) [6]. A systematic examination of suicides in India

revealed that female suicide rates are greater among those under 30 years of age, whereas the inverse is true for those over 30. In comparison to the western world, India has a comparatively lower discrepancy between female and male suicide rates [4] in the global context. There were no recorded suicides in the transsexual groups [3].

In Uttar Pradesh, housewives committed the most suicides (1,586 deaths), followed by daily wage employees (859 deaths), professional paid workers (403 deaths), students (603 deaths), the jobless (581 deaths), and self-employed farmers (261 deaths).

## **2. CAUSE AND METHODS OF SUICIDE**

In Uttar Pradesh, familial issues were determined to be the leading cause of suicide, accounting for 2,208 deaths. Relationships (370 fatalities) and illnesses (318 deaths).

Professional Occupational issues (265 fatalities) were also significant reasons of suicide. It is vital to emphasise that, among diseases, mental illness was the most frequently identified reason of suicide. In a study conducted in U.P., familial concerns were identified as the leading cause of suicide (29.6%). However, the other explanations identified in the studies differed significantly from the overall state scenario, with failure in examination or interview or business (23.5%), followed by ill-treatment by spouse or in-laws (16.3%) and unemployment (9%) [9].

The most prevalent means of suicide in India is hanging (53.6%), followed by poisoning (25.8%), drowning (5.2%), and self-immolation (3.8%) [3,10]. Similarly, in Uttar Pradesh, hanging was the most common means of suicide (3,267 deaths). 434 suicides were caused by self-immolation, compared to 909 suicides caused by poison ingestion, most commonly insecticide consumption [3]. A research conducted in Jhansi determined that self-immolation was the most prevalent way of female suicide. In contrast, the most prevalent way of suicide among men was being struck by a train [11], whilst a study conducted at KGMU Lucknow indicated that poison was the most common method of suicide among both men and women [6]. Aluminium Phosphide (31.6%), followed by Organophosphates (20%), was the most frequently utilised poison for suicide, according to a study done in Meerut, in the western region of the Indian state of Uttar Pradesh [9].

### **The Impact of COVID 19 On Suicide**

The COVID-19 epidemic, which has been a global health disaster for some time, has caused fear, worry, depression, and stress among the population. There has been a global increase in vulnerable individuals' psychological illness and even suicide. A study conducted between March and May 24, 2020, compiled 69 COVID-19-related suicides from various news sources. There were 63 males and the age range was between 19 and 65. Fear of COVID-19 infection was the most frequently cited cause (n=21), followed by the financial crisis (n=19), loneliness, social boycott and pressure to be quarantined, COVID-19 positivity, COVID-19-related workplace stress, inability to return home after the lockdown was imposed, lack of alcohol, etc. 14 of the 69 cases presented were from Uttar Pradesh [12].

### **Prevention**

Suicide must be addressed on both the public and individual levels. There are currently no government-specific hotline numbers for suicide in India. The numerous existing NGOs, such as

"Aasra" and others, do not have a presence in all Indian states, including Uttar Pradesh. Suicide has been decriminalised by government policies and legislation; nonetheless, the new amendment maintains that under IPC 309, attempting suicide is a penal act [7-8].

This results in increased social shame and underreporting of suicide instances, depriving us of reliable data for any location. The lack of peace and order in Uttar Pradesh has a negative impact on the quality of suicide statistics acquired through police reporting. Therefore, fresh, redesigned government policies with improved execution on the ground are required. State-level initiatives such to SPAN (Suicide Prevention Action Network), which was introduced by NIMHANS in Assam, must also be implemented in Uttar Pradesh to combat suicide as an individual problem [15].

Priority should be given to the implementation of awareness programmes and counsellors at all major educational institutions. In the workplace, As stress directly increases the likelihood of poor mental health and suicide [9-11], better stress management and coping skills must be taught, and regular mental health screenings must be added to routine check-ups. Also, state-level mental health programmes must be implemented at the rural level to include the entire rural and urban population of Uttar Pradesh.

Exclusively on U.P. there are few available research. There is a need for more specialised research that take regional demography into account. In addition, the data collected in India is deficient and biased. The primary source of data collection is the National Crime Record Bureau (NCRB), which obtains data from insufficient and regionally biased police records. In the villages of India and the U.P., less than 25 percent of deaths are documented, and of those, only 10 percent are medically confirmed, demonstrating again the low quality of the data collected [12-13]. Lacking from the Indian approach to suicide is an emphasis on mental health in relation to suicide. Global studies indicate that 90% of suicides are accompanied with a mental condition. However, only 1.3% of these studies originate from developing nations, with only a few from India, and much fewer from cities such as Bengaluru, Kolkata, etc. [14-16].

### 3. CONCLUSION

Even though suicide is a huge concern for a developing nation like India, not enough attention has been paid to this preventable tragedy. With a country as diverse as the United States, India, regional data is essential for comprehending and analysing the difficulties related with suicide in many societal settings.

To determine the exact burden of suicide in Uttar Pradesh, better and more aggressive data collecting is required, followed by the implementation of the necessary particular measures to counteract it.

### 4. REFERENCES

1. Singh AR, Singh SA. Towards A Suicide Free Society: Identify Suicide Prevention As Public Health Policy. *Men's Sana Monogr.* 2004;2(1):21–33.
2. Pawar R. Accidental deaths and suicide in India [Internet]. National Crime Records Bureau, Ministry of Home Affairs; 2019. Available from: [https://ncrb.gov.in/sites/default/files/Chapter-2-Suicides\\_2019.pdf](https://ncrb.gov.in/sites/default/files/Chapter-2-Suicides_2019.pdf)

3. Vijayakumar L. Indian research on suicide. *Indian J Psychiatry*. 2010;52(7):291.
4. Uttar Pradesh Population Sex Ratio in Uttar Pradesh Literacy rate data 2011-2021 [Internet]. Census2011.co.in.2021. Available from: <https://www.census2011.co.in/census/state/uttar-pradesh.html>
5. Kumar S, Verma AK, Bhattacharya S, Rathore S. Trends in rates and methods of suicide in India. *Egypt J Forensic Sci*. 2013 Sep;3(3):75–80.
6. Bray I, Gunnell D. Suicide rates, life satisfaction and happiness as markers for population mental health. *Soc Psychiatry Psychiatr Epidemiol*. 2006 May;41(5):333–7.
7. Patel V, Ramasundarahettige C, Vijayakumar L, Thakur JS, Gajalakshmi V, Gururaj G, et al. Suicide mortality in India: a nationally representative survey. *Lancet*. 2012 Jun 23;379(9834):2343–51.
8. Patel NS, Choudhary N, Choudhary N, Yadav V, Dabar D, Singh M. A hospital-based cross-sectional study on suicidal poisoning in Western Uttar Pradesh. *J Fam Med Prim Care*. 2020 Jun 30;9(6):3010–4.
9. Rane, A., & Nadkarni, A. Suicide in India: a systematic review. *Shanghai archives of psychiatry*. 2014; 26(2), 69–80.
10. Shukla GD, Verma BL, Mishra DN. Suicide in Jhansi city. *Indian J Psychiatry*. 1990;32(1):44–51.
11. 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 May 28:113145
12. Raju S, Tyagi U, Khan T. Three more corona suicides in west UP [Internet]. *Hindustan Times*. 2020. Available from: [https://www.hindustantimes.com/lucknow/three-more-corona-suicides-in-westup/](https://www.hindustantimes.com/lucknow/three-more-corona-suicides-in-westup/story-UMD11LH6Nj9JRaiNuE74eN.html) story-UMD11LH6Nj9JRaiNuE74eN.html
13. PANDA S. The Indian Penal Code (Amendment) Bill, 2016 [Internet]. 2016. Available from: <http://164.100.47.4/billtexts/lbilltexts/asintroduced/1086.pdf>
14. Chhetri S. Sikkim knocks NIMHANS door to tackle ‘suicide scourge’ [Internet]. *NORTHEAST NOW*. 2019. Available from: <https://nenow.in/north-east-news/sikkim/sikkim-knocks-nimhans-door-to-tackle-suicidescourge.html>
15. Feng J, Li S, Chen H. Impacts of stress, self-efficacy, and optimism on suicide ideation among rehabilitation patients with acute pesticide poisoning. *PloS one*. 2015 Feb 13;10(2):e0118011.
16. Radhakrishnan R, Andrade C. Suicide: An Indian perspective. *Indian J Psychiatry*. 2012;54(4):304–19.