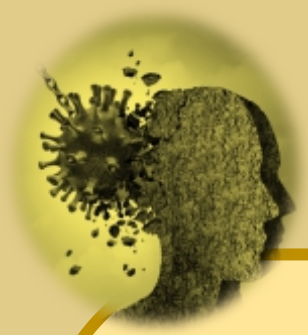

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In this issue.....

Suicide in Uttar Pradesh : An Overview

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ABSTRACT

Suicide has become a matter of growing concern in current times. The suicide rate is on the rise worldwide, and India is no exception to it. Suicide being a preventable cause of death requires more attention, early intervention, and proper strategies to deal with it. This article tries to reflect upon the status of suicide in Uttar Pradesh(U.P.), the most populous state in India, by reviewing data across PubMed, Science Direct, and Cochrane Library and incorporating national records. U.P. contributes to 3.9% of the total suicides in India. According to the 2011 census, maximum suicides in U.P. were below the age of 45years, and more females committed suicide than males. Recent data reveals that familial problems were reported as the leading cause of suicide, while hanging was the most common method. This article tries to shed some light on the recent impact of the pandemic, COVID 19, on suicide and discusses specific preventive strategies to try and fight against the rising burden of suicide in the state.

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

INTRODUCTION

Suicide is a global phenomenon, with 1.4% deaths occurring due to suicide worldwide, with 79% deaths occurring in low and middle-income countries. While suicide is prevalent across all age groups, with one person dying of suicide every 40 seconds, it has become the second leading cause of death among people age 15-29 years of age[1]. India, a lower-middle-income company with a total youth population of 34.8%, is extremely high in suicide rates. While in 1984 around 50,000 people committed suicide (50,571, *i.e.* 6.8 per 100 thousand), this figure rose to 90,000 (89,195 *i.e.* 9.9 per 100 thousand) in 1994. The figure has now nearly reached one hundred thousand Indians dying of suicide every year, which is 20% of the world's suicide population[2]. The National Crime Records Bureau (NCRB) has been recording an increase in the rate of suicide over the past decades, with a suicide rate of 10.4 in 2019. A total of 1,39,123 suicides were reported in the country during 2019, showing an increase of 3.4% compared to 2018, and the rate of suicides has increased by 0.2% during 2019 [3].

The prevalence of suicide is not uniform throughout the country. Interstate variability has been seen across India. The majority of suicides were reported in Maharashtra, followed by Tamil Nadu, West Bengal, Madhya Pradesh, and Karnataka. These 5 States together accounted for 49.5% of the total suicides reported in the country, while relatively lower rates were seen in the northern states[3]. Multiple factors might be responsible for this variability, like higher literacy and socioeconomic status, a better reporting system, lower external aggression, and higher expectations in the southern states [4]. However, overall, in India highest suicide rates were found in the age group of 18-30 years, with male suicide rates being higher than female, the male is to female

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ratio being 70.2:29.8. A higher incidence of suicide was seen in the lower-income class(<100 thousand/annum) population, with hanging being the most common method, followed by poisoning. Familial problems accounted for the maximum number of suicides[3].

Almost 16.50% population of India, accounting for 199.8 million, resides in one of the largest states of India, Uttar Pradesh(U.P.)[5]. Since it has the highest population among all states in India, the demography and risk factors of the suicide of the state will reflect strongly upon the suicidal status of the entire nation. Currently, U.P. stands at the 27th rank when it comes to the incidence of suicide in India[3]. However, such low suicide incidence is believed to be attributed to underestimating suicide cases in U.P.[6]. Hence more studies need to be done to find the actual burden of suicide in the Northern part of India, especially in densely populated states such as U.P., as U.P. will have a significant health impact on the country's health status. Life satisfaction and happiness majorly affect the suicidal rates of society[7]. U.P. owing to various problems like high unemployment, high poverty leading to an increased socioeconomic burden, more significant mental and physical abuse, and being the largest orthodox population along with a substantially marginalized population has several risk factors for the low quality of life and happiness index, hence, being highly predisposed to high rates of suicide.

The marginalized population has several risk factors for the low quality of life and happiness index, hence, being highly predisposed to suicide.

This article aims to get an overview of the existing data on suicide in U.P. and shed some light on the prevalence, demographic distribution, methods of suicide, risk factor, and preventive measures, if any, in U.P.

SEARCH STRATEGY

We initially conducted a broad search in online research databases (PubMed, Science Direct, and Cochrane Library) using the keyword Suicide. It helped in setting a background for the review. Then, the studies mainly consisting of Indian and state-specific data were included. We incorporated the original studies published in English along with the data collected from national records.

PREVALENCE AND DEMOGRAPHIC DATA

U.P. with a population of 199.8 million, currently reports a suicide rate of 2.4 (Total number of suicide/Mid-year population), which is much below the national average suicide rate (10.4). On the other end of the spectrum Andaman and Nicobar islands, has the highest suicide rate of 45.5 with a population of only 0.4 million, probably owing to a more vigilant reporting system monitoring a smaller population with abundant migrants. From 2018 to 2019, U.P. has shown a variation of 12.7% in suicide rates, a rapidly increasing statistic that needs to be focussed upon. U.P. contributes to 3.9% of India's total suicides. Kanpur, with the highest population in U.P. of 2.92 million, also has the highest suicide rate in U.P.(16.8). This is a surprising contrast as no other major city in U.P. (Agra, Allahabad, Ghaziabad, Lucknow, Meerut, Varanasi) has a suicide rate of more than 10[3].

RISK FACTORS

Risk factors can be attributed to age, gender, marital status, occupation, and psychosocial stressors. According to the 2011 census, in U.P., maximum suicides are below the age of 45 years like the rest of the country, with the maximum number of suicides being in the age group of 15-29, which also holds in accordance to the world scenario [1,3,8]. Female suicides (n = 1170) are more when compared to male suicides (n = 967), which is in contrast to the general prevalence across India, where more suicides are seen in males as compared to females [3]. However, a study conducted in Lucknow found higher suicide rates in males (56.61%) than females, 43.38% [6]. A systemic review of suicides in India showed that female suicide rates are higher under 30 years of age, but the opposite is true in over 30 years of age. In the context of the world scenario, India, in general, shows a relatively smaller gap in female to male ratio of suicide than the western world[4]. No suicides were reported in the transgender groups [3].

In U.P. majority of suicides were seen in housewives (1586 deaths) followed by daily wage workers (859 deaths), professional salaried workers (403 deaths), students (603 deaths), unemployed (581 deaths), and self-employed farmers (261 deaths). This data suggests that the females have a high propensity for suicide, reflecting upon a poor domestic environment in the

state. As per the educational qualification, most suicides in U.P. were seen in the 10th pass population (1223 deaths) followed by the educational qualification of middle school and then no education at all. Hence, the state's low educational status with high unemployment predisposes youth to suicide [3].

CAUSE AND METHODS OF SUICIDE

The most common cause of suicide in U.P was found to be familial problems contributing to 2208 deaths. Love affairs (370 deaths) and illnesses (318 deaths). Professional/ career problems (265 deaths) were other important causes of suicide. It is important to note that among illnesses, mental illness was the most commonly recognized cause of suicide. Similar results were found in a study conducted in U.P. where familier issues was the primary cause (29.6%) of suicide. However, the other causes recognized in the studies were slightly different from the general state scenario, with failure in examination or interview or business being the next most common cause (23.5%), followed by ill-treatment by spouse or in-laws (16.3%) and unemployment (9.2%) [9].

The primary method of suicide in India was found to be hanging (53.6%), followed by poisoning (25.8%), drowning (5.2%), and then self-immolation (3.8%) [3,10]. U.P. also showed similar statistics, with hanging being the most common method of suicide (3267 deaths). 909 suicides were due to consumption of poison, most commonly insecticide consumption, and 434 suicides were due to self-immolation [3]. A study conducted in Jhansi concluded that the most common method of suicide in females was self-immolation. In contrast, in men, the most common method was found to be getting run over by a train [11], while a study done at KGMU Lucknow concluded that poison was the most common method of suicide in both men and women [6]. Another study conducted in the western part of U.P., Meerut, focused on the most common type of poison consumed for suicide and found that Aluminium Phosphide (31.6%) was most commonly used, followed by Organophosphates (20.4%) [9].

COVID 19 AND ITS IMPACT ON SUICIDE

The COVID-19 pandemic, which has been at the level of a global health crisis for quite some time now, has generated fear, anxiety, depression, and stress among people. There has been a worldwide rise in psychiatric morbidity and even suicide in vulnerable individuals. A study carried out between March to May 24, 2020, presented 69 COVID-19 suicide cases from various news reports. Among which 63 were males, and the age group was between 19-65. The most common causative factors reported were fear of COVID-19 infection (n=21), followed by the financial crisis (n=19), loneliness, social boycott and pressure to be a quarantine, COVID-19 positive, COVID-19 work-related stress, unable to come back home after the lockdown was imposed, unavailability of alcohol, etc. Out of these 69 cases presented, 14 cases were from U.P [12].

Few reports like 'Three people, including a government employee, committed suicide in the region in the past 24 hours for fear of COVID-19', 'On Tuesday, a farmer, who was suffering from fever and cold, committed suicide to "save his entire village from being infected," 'young man who had been suffering from fever and cough, committed suicide in Kanpur by hanging himself because he feared he was suffering from coronavirus.' also support the evidence [13].

PREVENTION

Suicide needs to be tackled both at the public front and at the personal level of an individual. Currently, there are no solely dedicated government helpline numbers for suicide in India. The various NGOs that are present like "Aasra" etc., fail to have a base in all states of India including U.P. The government policies and regulations pertaining to suicide have decriminalised suicide; however, the new amendment still states that under IPC 309 attempt to suicide is a punishable offense [14]. This leads to a greater stigma within the society and under-reporting of suicide cases, depriving us of accurate data for any given region. Poor law and order in U.P. further affects the quality of suicide data collected through police reporting. Hence, newer revised government policies are needed with better implementation at the ground level. State-level strategies like SPAN (Suicide Prevention Action Network), which was implemented in Assam by NIMHANS, need to be established in U.P. as well to tackle suicide as an individual problem [15].

At the personal front, individuals need to be better prepared to deal with stress and identify suicidal ideations

so that they can seek help at the right time as a majority of the population prone to suicides is adolescents and people <30 years of age. Awareness campaigns in schools and counselors associated with all major educational institutes should be made a priority. At work places, better stress management and coping strategies must be taught with regular mental health check-ups being added to the routine check-ups as stress directly increases the chances of poor mental health and suicide [16]. Also, at the rural level, state-level mental health programs need to be established to cover the overall rural plus urban population of U.P.

Minimal studies are available pertaining to U.P. solely. More niche studies keeping regional demographics in mind need to be done. Moreover, the data collected in India is incomplete and biased. The primary source of data collection is via NCRB (National Crime Record Bureau, which acquires data through police records that are insufficient and biased by regional law and order. A major population of India, as well as the U.P., lives in the villages where barely 25% of deaths are registered, and of that, only 10% medically certified, again reflecting poorly on the quality of data collected[17]. Another main component missing from the Indian approach to suicide is the emphasis of mental health on suicide. Studies from across the world show that 90% of suicide cases have an underlying mental disorder. However only 1.3% of these studies come from developing country with only a handful studies from India that too from cities like Bengaluru, Kolkata, etc.[18].

CONCLUSION

Suicide, a preventable tragedy, despite being a significant challenge for a developing country like India, has not received enough attention. With a diverse country like India, regional data is necessary to understand and analyze the problems associated with suicide in varied social setups. Better and more aggressive data collection needs to be done to find the actual burden of suicide in U.P. and then take the necessary specific measures to combat it.

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