

# An Analysis of Telugu Suicides by Gender

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Received on: 19 November 2022; Accepted on: 24 December 2022; Published on: 10 February 2023

## ABSTRACT

**Background:** Gender differences are getting progressively narrowed in all fields.

**Aim:** Evaluate the Telugu suicides to find out if any gender differences are there in various parameters in Telugu states.

**Methods:** Suicide data from the national portal were analyzed to find out gender differences in cause, education, income, method, profession, rate, and social status, for the period 1967–2021 before bifurcation (1967–2013) and after bifurcation (2014–2021). Further, differences between the two states were analyzed separately. Simple basic statistics and Wilcoxon signed-rank test were used to compare parameters.

**Results:** There were a total of 471,285 Telugu suicides in the 56-year period of 1966–2021. Sex ratio (male/female) was 2.55. The lowest no. of suicides was recorded in 1980 (1,905) and the highest in 2021 (18,238). Female suicides recorded a reduction after bifurcation to an average of 29.1%. There was a marginal reduction in suicide after bifurcation due to reduced female suicides. The predominance of male suicides over women was maintained all through the recorded period. This continued even when the state was bifurcated. The contribution of Telugu suicides to total suicides was 9.8%. In most of the parameters studied, there were differences between the sexes. Telangana persistently recorded a higher rate.

**Conclusions:** Further in-depth analysis is required to correlate with other associated parameters to identify sex-specific factors for suicide.

**Keywords:** Andhra Pradesh, Bifurcation, Gender, Sex ratio, Suicide rate, Telangana.

*Indian Journal of Private Psychiatry* (2023): 10.5005/jp-journals-10067-0131

## BACKGROUND

Gender differences occur in all living things and are universal. It occurs in all fields of human life. Suicide and suicidal behavior are no exceptions to this. Gender studies are gaining progressively increasing attention. Gender-based medicine, gender-specific medicine, and gender medicine broadly deal with differences between the sexes in various aspects of diseases.<sup>1</sup> The reports all over the world indicate that males predominate over females in the act of suicide. There are some places where the reverse occurs, but this is confined to parts of nations rather than nations. Higher female suicides were reported over many years from Lesotho, Myanmar, China, Bangladesh, Morocco, and Pakistan.<sup>2</sup> Gender differences in various aspects of suicide were highlighted in the literature. For example, the method of suicide was found to be an important factor influencing the seasonal distribution of suicides for both men and women.<sup>3</sup> The gender differences in suicide were not given due importance in Indian literature. For example, in 1 out of 16 Indian studies, mostly based on National Crime Records Bureau (NCRB) data, gender differences were not reported.<sup>4</sup> The Madras state was split on a linguistic basis, and Andhra became the first such state. It became Andhra Pradesh (AP) with the merger of parts of Nizam Hyderabad state, after the merger of it with Indian Union. In 2014, AP was bifurcated into AP and Telangana. There were no reported articles on gender analysis of suicides in Telugu states in psychiatric literature. Hence, an exercise was undertaken to see if there were any differences between the sexes in recorded suicides as far as cause, education, income, method, profession, rate, and social status in Telugu state were concerned.

## METHODS

Suicide data from the national portal<sup>5</sup> were analyzed to find out differences between sexes in cause, education, income, method, profession, rate, and social status. Because of the small number of transgender people reported, they were clubbed with the

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**How to cite this article:** Poduri GS. An Analysis of Telugu Suicides by Gender. *Ind J Priv Psychiatry* 2023;17(1):20–25.

**Source of support:** Nil

**Conflict of interest:** None

female sex. The data were analyzed for the period 1967–2021. The data were further analyzed for the two states – Andhra and Telangana separately to find out any sex differences in the above parameters. Simple basic statistics and Wilcoxon signed-rank test from Statistics Kingdom<sup>6</sup> were used to compare parameters.

## RESULTS

Sex-wise break-up was available from 1971. For the year 1987, data were not provided (total was obtained from 1988 data). Initially, cause and mode were available. Various parameters were added subsequently. Over the years, newer entities for cause, mode, etc. were made. The analysis was for the available material. Telangana recorded a higher suicide rate for both sexes persistently. Females recorded rates ranging from 11 to 16.4 in comparison to the AP rate of 6.0–7.8. The rates for men from Telangana and AP were 27.4–42 and 14.0–22.9, respectively.

**Figure 1** gives gender-wise suicide rates over the years of India and Telugu suicides.

**Figure 2** gives Telugu suicide gender percentages – 1967–2021.

**Figure 3** gives Telangana and AP gender suicide rate 2014–2021.

The male/female suicide sex ratio increased in both the bifurcated states, indicating a decline in female suicides. This is in tune with the national trend.

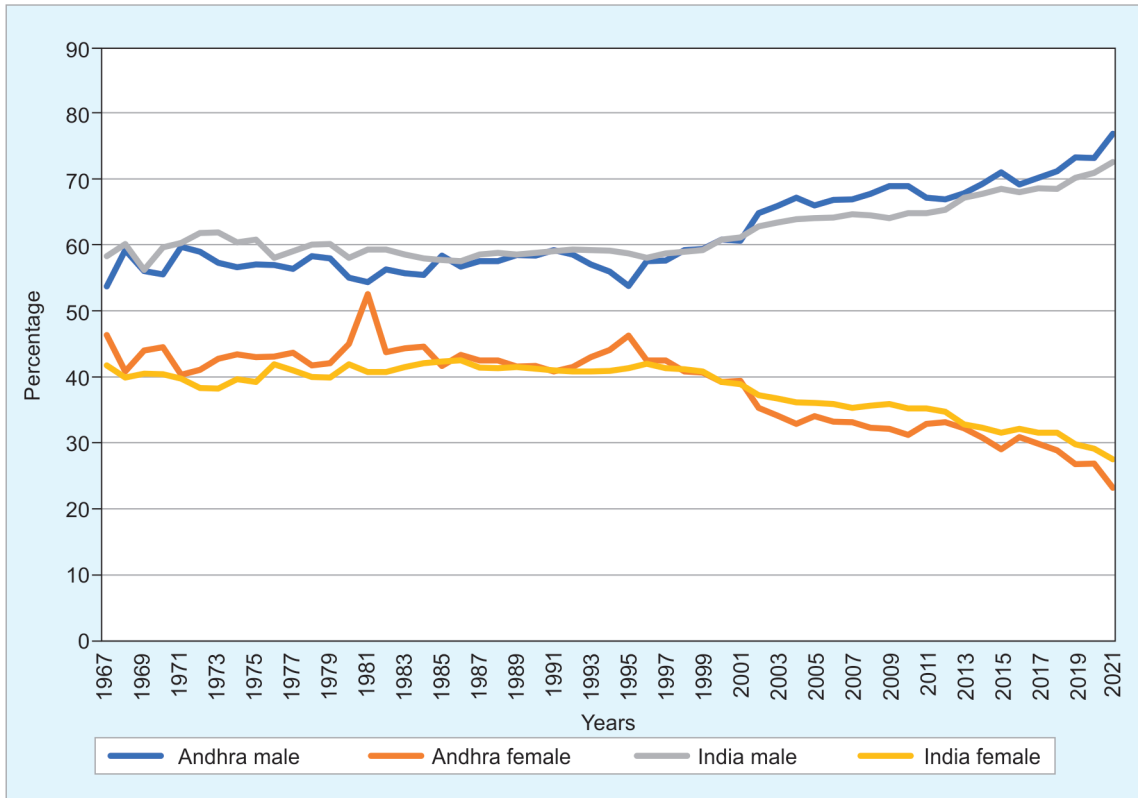


Fig. 1: Gender-wise suicide rates of India and Andhra – 1967–2021

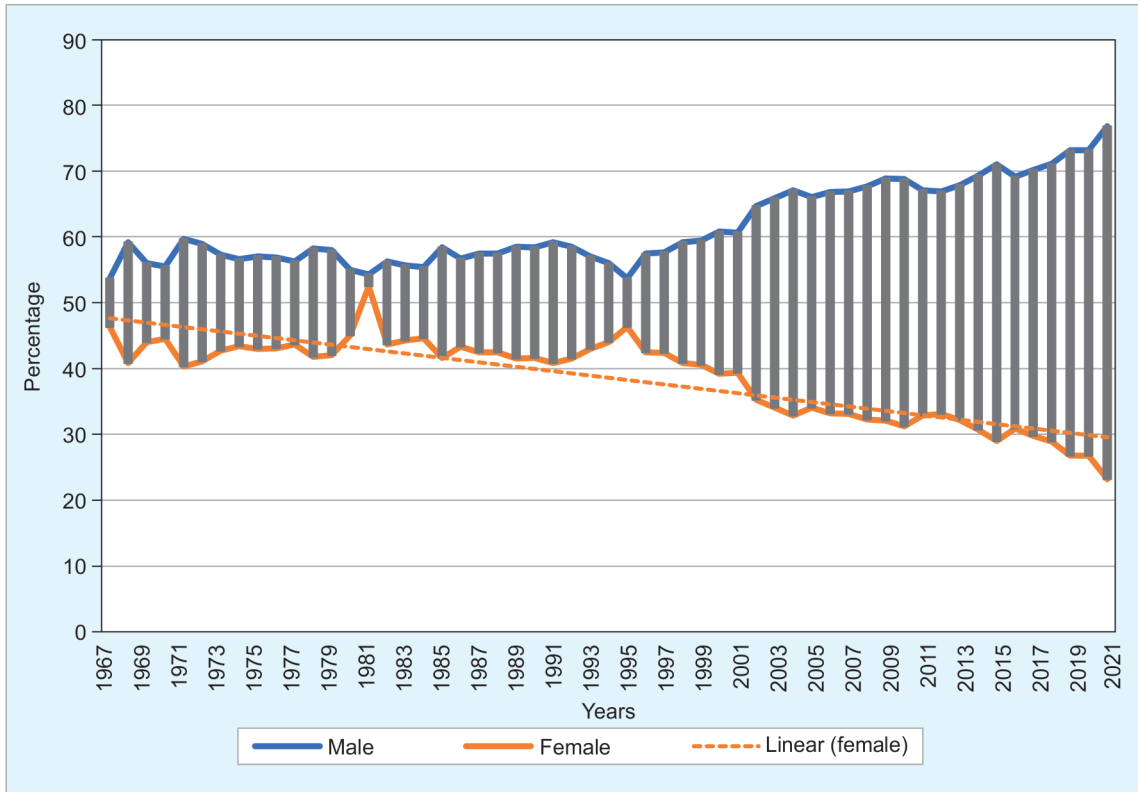


Fig. 2: Telugu suicide gender percentages – 1967–2021

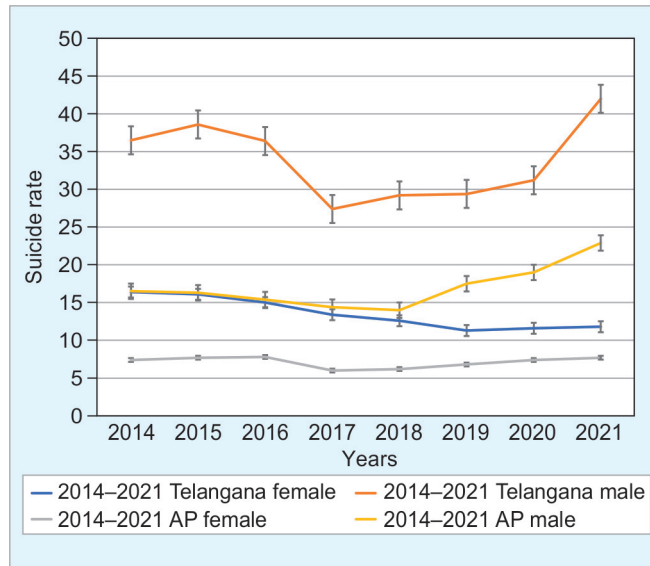


Fig. 3: Telangana and AP gender suicide rate 2014–2021

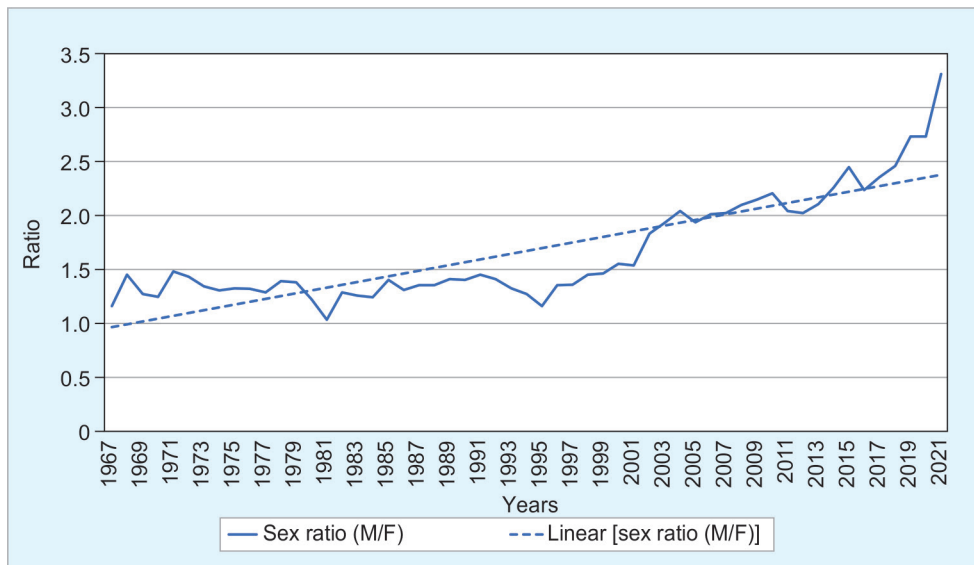


Fig. 4: Telugu suicide sex ratio

Figure 4 gives Telugu suicide sex ratio (male/female).

Table 1 gives broad details of Telugu suicides – sex-wise.

Table 2 gives details of various parameters of Telugu suicides before (1971–2013) bifurcation.

Table 3 gives details of various parameters of suicides of AP and Telangana.

Significant differences were found between the sexes in all parameters except social status before bifurcation. Telangana and AP differed in all parameters, except economic and professional profiles.

## DISCUSSION

Suicide studies are handicapped by gross underreporting. Added to this, the data over a long period have necessarily to be based on old official records. As these records were based on police reports, for whom suicide is not a priority issue, the authenticity is suspected.

This has to be kept in mind in an analysis of this type. Gender differences in suicides were recognized early. A systematic review and random effect meta-analyses of 67 studies found a higher risk of males for suicide death.<sup>7</sup> The gender paradox in suicide – where men are more likely to successfully commit suicide, attempts are more common, and suicides are less common among women – is a phenomenon that is more culturally influenced.<sup>8</sup> However, there are distinctions between men and women’s established risk factors for suicide.<sup>9</sup> It was reported that there were significant differences between men and women in terms of suicide age, suicide method, and suicide reason in Turkey.<sup>10</sup> The lethality of the suicide techniques that men and women choose has been linked to gender disparities in suicide completion rates.<sup>11</sup> It was suggested that the sex ratio may be differently determined in youths and in older adults.<sup>12</sup> In a review, it was discovered that India has a substantially lower ratio of female suicide deaths compared with high-income nations. In contrast to high-income countries, where hanging was more

**Table 1:** Details of Telugu suicides – sex-wise

	Total years	Total	Yearly average	%	Sex ratio (M/F)	Max (year)	Min (year)
1971–2021 Telugu state (including Telangana)							
Female	55	1,64,914	2,998	5	1.86	4,957 (2011)	857 (1980)
Male	55	02,240	5,495	65		1,409 (2021)	1,048 (1980)
Total (1967–2021)	55	4,67,154	8,494			1,828 (2021)	1,905 (1980)
2014–2021 AP							
Female	8	14,480	1,810	28.6	2.49	2,021 (2021)	1,516 (2017)
Male	8	6,154	4,519	71.4		6,046 (2021)	751 (2018)
Total	8	5,064	629			8,067 (2021)	519 (2018)
2014–2021 Telangana							
Female	8	19,500	248	27.8	2.60	2,954 (2014)	206 (2019)
Male	8	50,651	61	72.2		796 (2021)	5,266 (2017)
Total	8	70,151	8,769			10,171 (2021)	7,620 (2017)

**Table 2:** Details of various parameters of Telugu suicides before bifurcation (1971–2013)

Parameter	Before bifurcation – 1971–2013			
No. of suicides	27,420			
Gender	Male – 2,04,749		Female – 1,22,671	
Extremes	Most	Least	Most	Least
No. of suicides	10,947	1,048	4,957	857
Rate	19.4	16.6	18.0	16.4
Cause	Family problems	Physical abuse	Family problems	Physical abuse
Education	No education	Professional (MBA, etc.)	No education	Professional (MBA, etc.)
Economic	Less than Rs. 1 lakh	Rs. 10 lakh and above	Less than Rs. 1 lakh	Rs. 10 lakh and above
Method	Poison	Firearms	Poison	Firearms
Professional profile	Daily wage earner	Retired persons	Homemaker	Retired persons
Social status	Married	Separated	Married	Status not known/Separated

common among men, it was discovered that hanging was a more popular means of suicide among both men and women.<sup>4</sup> Access to suicide means may be the primary factor explaining suicide ways, according to the results of logistic regression, which found no significant relationship between gender and suicide techniques.<sup>1</sup> The argument that women commit suicide less frequently than men does not just boil down to a simple dichotomy between more and less lethal techniques.<sup>13,14</sup> The present analysis agrees with the above. The trend of hanging is increasing as it is quick, nonmessy in nature, instantaneous, easy accessibility, and nonexpensive. Compared with men who suffer similar injuries, women are less likely to survive burns and die sooner. This effect does not appear to be modulated by body size.<sup>15</sup> Though burns are more in females, in both sexes, it is coming down over the years as a preferred method, hanging over and taking over. The preference of burns by females earlier may be traditional housebound nature confining to the kitchen and consequent contact with fire in the kitchen. In the present analysis, housewives were overrepresented. This is due to the culture of traditional women being housebound. This is bound to change fast with increasing changes in the occupation of women.

Overrepresentation of men can be attributed to role-assigned duties – notwithstanding crumbling glass ceilings, consequent stressors, decreasing social status of men, increasing assertion

of women, etc. The dominant role of men is fast-fading, leading to role adjustment problems. This explains gradually increasing male suicides and decreasing share of women suicides. This can be a pointer to further reduction in women suicides as they are fast overtaking men in education, employment, earnings, respect, chasing new fields, etc. In the present times, society is in a flush, transit, and in a turmoil. The fast pace of development and changing times is difficult to adjust and adapt for the lesser-adaptable and slow-paced people. For men, it is a losing game, and for women, it is a gaining and nothing-to-lose game. This further explains the gender differences.

The culture of traditional gender practices, starting from preference for a male child to tolerating, condoning, and supporting male deeds and misdeeds, dominance, is fast changing in the country. This is spreading to the traditional, conservative Telugu societies also. Traditions take a long time to change in a conservative society. The present trend of fast and rapid changes is likely to cause distress at the individual level to many. This is bound to change the suicide scene in general and the gender rate in particular. Gender variations in risk variables for suicide could not be explained by differential exposure to established risk factors.<sup>16</sup> In order to produce knowledge that can impact clinical treatment and prevention initiatives in ways that will be most effective for

**Table 3:** Details of various parameters of suicides of AP and Telangana

Parameter	AP (No. of suicides) (50,634)						Telangana (No. of suicides) (70,151)					
	Male (36,154)			Female (14,480)			Male (50,651)			Female (19,500)		
	Most	Least	Most	Least	Most	Least	Most	Least	Most	Least	Most	Least
Suicides	6,046	3,751	2,021	1,516	7,963	5,266	2,954	2,063				
Cause	(1) Illness (26.1) (2) Family problems (2.1)	Fall in social reputation (0)	(1) Illness (40.0) (2) Family problems (26.8)	Ideological causes/ Hero worshipping/ Illegitimate pregnancy	(1) Family problems (0) (2) Other causes (20.8)	Impotency (0.1)	(1) Family problems (29) (2) Illness (22.6)	Illegitimate pregnancy (0.2)				
Education	(1) No education (20.2) (2) Matriculate/Secondary (up to class 10) (18.4)	Professional (MBA, etc.) (0.4)	(1) No education (2.9) (2) Primary (up to class 5) (20)	Professional (MBA etc.) (0)	(1) No education (27.4) (2) Matriculate/Secondary (up to class 10) (18.4)	Professionals (MBA etc.) (0.5)	(1) No education (4.1) (2) Primary (up to class 5) (16.9)	Professionals (MBA etc.) (0)				
Economic	(1) <Rs. 1 lakh (64.7) (2) Rs. 1 lakh and above and less than Rs. 5 Lakh (29.6)	Rs. 10 lakh+ (1.2)	(1) Less than Rs. 1 lakh (69.1) (2) Rs. 1 lakh and above and less than Rs. 5 lakh (25.2)	Rs. 10 lakh and above (1.2)	(1) Less than Rs. 1 lakh (56.1) (2) Rs. 1 lakh and above and less than Rs. 5 lakh (0.6)	Rs. 10 lakh and above (5.1)	(1) Less than Rs. 1 lakh (62.2) (2) Rs. 1 lakh and above and less than Rs. 5 Lakh (26.8)	Rs. 10 lakh and above (4)				
Method	(1) Poison of various types (45) (2) Hanging (2)	Firearms (0.1)	(1) Poison of various types (9.8) (2) Hanging (6.4)	Touching electric wires (0.1)	(1) Poison (9) (2) Hanging (6.4)	Firearms (0.1)	(1) Poison (7.9) (2) Hanging (2)	Firearms				
Professional profile	(1) Daily wage earner (2.9) (2) Other persons (18.4)	Retired persons (0.6)	(1) Homemaker (46.9) (2) Farming sector (20)	Retired persons (0.1)	(1) Daily wage earner (6.0) (2) Other persons (2.2)	Retired persons (0.4)	(1) Homemaker (29.7) (2) Daily wage earner (27.5)	Retired persons (0.1)				
Social status	(1) Married (7.0) (2) Unmarried (17.0)	Divorcee (0.4)	(1) Married (67.9) (2) Unmarried (21.0)	Divorcee (0.7)	(1) Married (7) (2) (16.1)	Separated (1.2)	(1) Married (66.6) (2) (20.1)	Status not known (1.1)/Separated (1.8)				

\*% in parenthesis

preventing suicide behavior in all genders, gender differences in suicidal behavior certainly warrant additional research attention.<sup>17</sup>

Notwithstanding the differences, the cost of attempted suicide, forerunner in most female suicides, when taken into consideration, make female suicide costly. With rapid and fast blurring and equalization of genders, one may have to search for sex hormones and sex chromosomes for possible causes for gender difference manifestations.

This is the first gender study from Telugu population that can be used for comparison purpose. The drawbacks of this are analysis did not correlate with other factors and all the attendant defects of a retrospective study based on official data. Further, recent, rapid, and drastic differences related to various parameters got diluted due to a long period of analyzed data-> half a century.

## CONCLUSIONS

Considering the gender differences, gender-targeted prevention and intervention strategies would be needed and helpful in the preventive strategy.

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