

VIEWPOINT

## Are There Two Types of Suicidal Ideation Among Women in Rural India?



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### INTRODUCTION

Per World Health Organization (WHO) data, 1 million people commit suicide yearly, with more than 80% occurring in low- and middle-income countries; India and China alone account for 60% of worldwide occurrences.<sup>1</sup> In India, suicide deaths among women are equivalent in number to deaths from perinatal causes and double those due to HIV/AIDS.<sup>2</sup> Despite worldwide prevalence disparities, the literature on suicide continues to comprise studies conducted in Western, high-income countries. Only 1.3% of studies published on suicide originate from India or China.<sup>3</sup> Suicide is a crime in India and thus under-reporting and general stigma likely contribute to the paucity of relevant literature; there is a critical need to study suicide in India. We present descriptive findings from a cross-sectional survey conducted in rural Gujarat, India, that expands the discussion on suicide among young women and poses the question: Are there two types of suicidal ideation among women in rural India?

### METHODS

The detailed study methodology has been previously described.<sup>4,5</sup> In brief, survey data assessing health

status and healthcare behavior were collected from 700 reproductive-age women from rural regions of the Anand District in Gujarat, India. Mental health was assessed using the World Health Organization self-reported questionnaire (SRQ-20). Women reporting yes to  $\geq 8$  questions were considered positive for common mental disorders (CMD).<sup>6</sup> Single questions from SRQ-20 were used to assess suicidal ideation (“*Has the thought of ending your life been on your mind?*”), loss of interest or anhedonia (“*Have you lost interest in things?*”), and self-worth (“*Do you feel that you are a worthless person?*”). Self-reported health status was derived from question 1 from the Short Form-12 questionnaire (“*In general, how would you rate your overall health?*”). Age, education, income, and perceived stress data were collected.

The  $\chi^2$  test or Fisher exact test were utilized where appropriate to assess distribution of sociodemographic and health characteristics among 1) all participants stratified by suicidal ideation and 2) participants endorsing suicidal ideation stratified by CMD status.

### RESULTS

Of 700 participants, 37 were excluded from the analyses; 19 surveys were incomplete, and 18 were conducted outside of the clinic area. Of the

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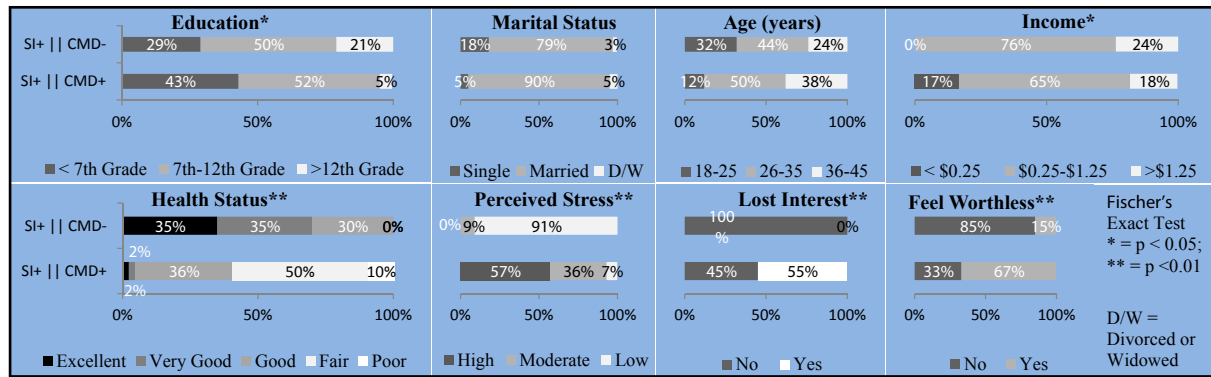
remaining women, 76 (11.5%) endorsed suicidal ideation and 157 (23.7%) screened positive for CMD. As shown in Table 1, only about half of the women with suicidal ideation screened positive for CMD. Women with suicidal ideation were more likely to have lower education and income and higher perceived stress. The majority of women endorsing suicidal ideation reported that they had not “lost interest in things” (70.7%) and did not feel “worthless” (56.6%).

Figure 1 demonstrates the stratification of the 82 participants with suicidal ideation based on their CMD screening status. In comparison to those who screened positive for CMD, women who screened negative for CMD had higher levels of education and income. More than two-thirds of the CMD-negative participants reported excellent or very good health in contrast to less than 5% of CMD-positive participants. No participants who endorsed suicidal ideation but screened negative

**Table 1. Distribution of Sociodemographic and Health Characteristics of Reproductive-Aged Women from Rural Western India Based on Suicidal Ideation**

	Total (n)	Suicidal Ideation (col %)		P
	(N = 663)	Yes: 11.5%	No: 88.5%	
<b>Location</b>				
Clinic	313	43.4	47.7	0.48
Village	350	56.6	52.3	
<b>CMD Status</b>				
Positive	157	55.3	19.6	< 0.001
<b>Age</b>				
18-25	227	21.1	36.1	0.03
26-35	253	47.4	37.1	
36-45	181	31.6	26.8	
<b>Marital Status</b>				
Single	97	10.7	15.2	0.46*
Married	546	85.3	82.1	
Divorced/Widowed	19	4.0	2.7	
<b>Education</b>				
< Secondary	162	36.8	22.9	0.01
Secondary-HS	358	51.3	54.5	
> HS	141	11.8	22.6	
<b>Daily Income Per Person</b>				
< \$0.25	49	9.5	7.4	0.03
\$0.25-1.25	372	70.3	56.4	
>\$1.25	220	20.3	36.2	
<b>Health Status</b>				
Excellent	166	17.1	26.1	0.06*
Very Good	96	17.1	14.1	
Good	250	32.9	38.3	
Fair	136	27.6	19.6	
Poor	15	5.3	1.9	
<b>Perceived Stress</b>				
High	88	31.6	10.9	< 0.001
Moderate	236	23.7	37.3	
Low	337	44.7	51.8	
<b>Loss of Interest</b>				
Yes	91	30.3	11.6	< 0.001
<b>Feeling Worthless</b>				
Yes	64	43.4	5.3	< 0.001

CMD, common mental disorders; HS, high school.  
\* Fisher exact test.



**Figure 1.** Characteristics of women endorsing suicidal ideation (SI) ( $n = 76$ ) by common mental disorder (CMD) status as determined by World Health Organization's self-reporting questionnaire-20 (SRQ-20) score of  $\geq 8$ . Results based on a cross-sectional survey of 700 reproductive-aged women from rural Western India.

for CMD reported high stress levels or anhedonia, and only a small portion felt worthless; by comparison, participants endorsing suicidal ideation and screening positive for CMD reported high levels of stress (57%), anhedonia (55%), and worthlessness (67%).

## DISCUSSION

Although exploratory, our results present some notable findings: 1) One in 10 women in our sample had suicidal ideation in the previous month; 2) almost half of the women who endorsed suicidal ideation did not screen positive for CMD; 3) after conditioning on CMD status, 2 distinct groups of women with suicidal ideation emerged: one group that fits the conventional knowledge about suicide and another that contradicts it.

Despite being one of the largest causes of death among young adults in India, with rates of suicidal ideation ranging from 6%–39% and with young adults experiencing greater risk than older adults, limited relevant studies have been conducted in the country.<sup>7</sup> Contradicting suicide trends in Western countries, women in India, especially in rural areas, carry the same risk for suicide as men.<sup>2</sup> Within this context, our finding that 1 out of 10 women interviewed endorsed suicidal ideation underscores the public health importance of this topic and is a potential window of insight into the plight of these women.

Suicide is historically considered an outcome of unaddressed mental disease. Given that half of the women with suicidal ideation did not screen positive

for CMD in our study, this conventional wisdom must be challenged. Further supporting this finding are 2 recent psychological autopsy studies conducted in China that found that only 45%–63% of suicide cases had recognized underlying mental illness.<sup>8,9</sup> It is possible that poor mental health literacy and associated stigma affect symptom and behavior recognition, thus leading to underestimation of the prevalence of mental disorders. However, our finding that women who endorse suicidal ideation but screened negative for CMD have higher education and income levels does not support this hypothesis. To be clear, our results should not be interpreted as challenging the role of mental health in suicide. Mental disorders remain the most important risk factor for suicide, and any notion to the contrary would be misguided. However, this emerging evidence from the worldwide epicenter of suicides, India and China, is crucial in guiding suicide-prevention programs and clinical assessment of suicidal thoughts or behaviors.

Suicide intervention programs and clinicians must address risk in persons without prior or current mental illness symptoms or suicidal behaviors. Interventions that promote the abilities of individuals to cope with difficult situations may be important in preventing suicides. In India, despite its illegal status, some perceive suicide as socially acceptable when dealing with untenable difficulties.<sup>10</sup> It is likely that impulsivity plays a central role in suicides in India, as use of organophosphate pesticides is the most common method of suicide and suicide attempts in India,<sup>2</sup> and these substances are readily available. Impulsive behavior has

also been observed among Chinese people without mental illness who attempt suicide.<sup>8</sup> Thus, there is an urgent need for a culturally specific intervention model to prevent suicide. Strengthening self-efficacy, social support systems, and emergency hotlines should be considered important avenues of prevention. Further work is necessary to understand the triggers of suicidal ideation and attempts among women who do not screen positive for CMD and to assess whether similar patterns of suicidal ideation and attempts are observed in Western countries, particularly among people of South Asian origin.

A limitation of our study is that structured psychiatric interviews, the gold standard measure of mental illness, were not utilized. Instead, for this community-based study, we relied on validated instruments that are less resource-intensive. It is important to note that we report on recent suicidal

ideation (within the previous month) and did not measure thought duration or degree of intendedness associated with ideation. However, the items that were used to assess suicidal ideation and psychosocial status have very high face validity and were designed for use in low- and middle-income countries with low literacy levels.

## CONCLUSIONS

In conclusion, our findings suggest that conventional markers for suicide risk in Western, high-income countries may not translate well to other cultures. Increasing coverage for mental healthcare alone may not be enough to reduce the suicide rate in India. Further investigation of individuals who have suicidal thoughts without a comorbid mental illness is necessary to improve preventative measures for this subpopulation.

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