

Original Article

A Survey of Suicidality and Views on Suicide in an Indian Sample of Adults

Abstract

Background: Suicide is a major public health concern in India. There is limited information regarding views about suicide and suicidality in the community. **Aims:** It was intended to study the suicidal cognitions and behavior in a sample of adults in India along with views about suicide. **Methodology:** It was a cross-sectional, questionnaire-based, anonymous survey conducted in four tertiary level medical centers. The subjects included patients and their attendants and health professionals in the organizations. The questionnaire included items on suicidal cognitions, suicide attempt history, current and past physical and mental illness, stress, views on suicide and the interventions along with information on the sociodemographic variables. **Results:** A considerable proportions of participants reported lifetime suicidal cognitions: Life not worth living, 44.2%; death wish, 26.9%; suicidal ideas, 24.6%; made suicidal plans, 12.4%; and 7.1% had a history of suicide attempt. These cognitions were significantly associated with suicide attempt. There was a general awareness of risks and supportive measures. The finding that 29.7% of participants might consider suicide for themselves in certain circumstances suggested the degree of acceptability of suicide in the community. Contrasting views were also present where suicide was considered as a sin by 66.2%, but 10.4% felt that their religion allows it in certain situations. The majority of participants felt that suicide is preventable. **Conclusions:** Suicidal thought and behaviors were common in the community. The results suggest that there is still a need for public education increasing awareness about the risks, support systems available in the local community and timely help-seeking that may improve the scope for suicide prevention.

Key Words: Behavior, cognition, India, prevalence, public health, suicidal ideation

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Introduction

Suicide is a major social and public health issue in India. There is a consistent increase in suicidal deaths in India; from 1975 to 2005 the suicide rate increased by 43%.^[1] It has been estimated that in India at age 15 an individual has a cumulative risk of about 1.3% of dying by suicide before the age of 80 years; men have a higher risk (1.7%) compared to women (1.0%), which is especially high in South India (3.5% in men and 1.8% in women).^[2] It is well-known that suicides are under-reported and attempted suicides occur many times more than suicides in communities.^[3,4]

It is common to observe the suicidal cognitions and behaviors in psychiatric patients; however, the majority of suicide happen outside the clinical population. Compared to the magnitude of the problem, knowledgebase is rather scarce about the prevalence of suicidal cognitions

and behavior in general population where most of the preventive work should be directed to.

Reported prevalence rates of suicidal ideations and behaviour in general population suggest that they are common. Lifetime suicide attempt rate was 2.9% in the five-site National Institute of Mental Health Epidemiologic Catchment Area (ECA) Study;^[5] it was 1.1% in the 1969 New Haven study,^[6] 2.7% in North Florida,^[7] and 4.2% in Calgary, Canada.^[8] In the ECA study, the prevalence ranged from 1.5% in the Piedmont to 4.3% in Los Angeles.^[5] Paykel *et al.* reported lifetime prevalence of suicidal cognitions like life not worth living: 11.5%, death wish: 8.2%; thoughts of taking life: 4.8%; and seriously considering taking life: 2.6%.^[6]

In the WHO SUPRE-MISS community survey, which included India amongst other nations (Brazil, China, Estonia, India, Iran, South Africa, Sri Lanka, and Viet Nam) there was wide variation of prevalence of suicidal ideation (2.6–25.4%), plans (1.1–15.6%), and attempts

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(0.4–4.2%) by a factor of 10–14 across sites.^[9] There are a few specific Indian studies regarding suicidality conducted in various populations. A study involving 4711 subjects (aged 30+ years) in rural Central India close to the tribal belt reported suicide attempt by 4.2% and suicidal thoughts during the last 6 months by 5.1%.^[10] In the Idu Mishmi, tribal population in North East India suicide attempt (14.2%) was higher than urban population in general (0.4–4.2%) and females were at higher risk.^[11] In a study of medical students in Madras, 16.8% reported previous suicidal ideation and 5.9% reported suicide attempts.^[12]

A survey of 1817 undergraduate college students aged 18–24 years in Ahmedabad, found the prevalence of lifetime suicide ideation and suicide attempts as 11.7% and 4.0% respectively.^[13] In a school based study of 1205 adolescents between 12 and 19 years of age in Delhi, reported lifetime and last year prevalence rates of suicidal ideation were 21.7% and 11.7%; and those of suicide attempt were 8% and 3.5% respectively; which were considerable.^[14] Another study with 1087 adolescents aged 16–18 years in Bangalore found that 25.4% reported suicidal ideation in the past 3 months; lifetime suicide attempt was reported by 12.9%, which was 6% in the past 3 months.^[15] In a study of 296 women from various backgrounds, suicidal idea and/or death wish was reported by 10% during the premenstrual period.^[16]

In clinical population, suicide attempt rates are obviously higher. In a study in India, it was 34% for schizophrenia and 44% for major depressive disorder.^[17] In a study of patients with obsessive compulsive disorder (OCD), 46.1% had current and 62.3% had lifetime suicidal ideation.^[18] Another study with OCD patients, the worst ever and current rates of suicidal ideation were 59% and 28% respectively with a history of suicide attempt in 27% of the subjects.^[19]

There are few studies in specific vulnerable population. In 326 sex workers in Goa, 19% reported attempted suicide in the past 3 months.^[20] In a study following natural disaster 1-year prevalence rates of death wishes (66.4%), suicidal ideas (38.0%), plans (18.3%), and attempts (12.6%) were considerable.^[21]

Objective

In the above context, it was intended to study the awareness and attitude of people toward suicide, and to find out the prevalence of suicidality. The association of suicidality with awareness, attitude, stress, and sociodemographic and clinical profiles was also studied.

Methodology

The study was conducted as a multi-site questionnaire survey. The items in the self-rated questionnaire included awareness about suicides in community, suicidality, attitudes toward it, stress, social adjustment and quality of life of participants, along with the sociodemographic variables. There were both close-ended and open-ended

questions. The open-ended questions were about: Reasons for which people attempt suicide; reasons if any that are appropriate for suicide; situations where the participants would consider suicide for themselves; behaviors and talks that suggest suicide; who can help a suicidal person; and ways to prevent suicide. Responses to open-ended questions were coded for analysis of their content.

The term “suicidality” encompasses cognitions and behaviors related to suicide.^[22] It involves passive ideations to active suicidal ideas, plans, intent, threat and attempt; extending to completed suicide.^[23–25] For example, in the context of treatment emergent suicidality, suicidal ideation, behavior and suicide are considered.^[25] In this study, specific information collected regarding suicidality was: Cognitions like life not worth living, death wishes, suicidal ideas, suicidal plans and attempt. The participants could further elaborate the responses choosing a frequency like often, sometimes, hardly ever or never. These were similar to the assessment method used by Paykel *et al.* for the suicidal feeling prevalence study.^[6] Information on life events in the past 1 year, current and past history of physical and psychiatric illness, family history of psychiatric illness, suicidal attempt and suicide were collected. These were based on the self-report of the participants. Social adjustment was assessed in scale of 1–10 where score 1 is “cannot be worse than this” to 10 is “cannot be better than this” to the question, “how well are you integrated in your social life – family, friends and colleagues.” Similarly overall quality of life was assessed by a single-item question “how is your quality of life” in a scale of 1–10 where 1 is “cannot be worse than this” to 10 is “cannot be better than this.” Single-item measures have been used in surveys and clinical assessments to measure quality of life and have been found to be acceptable.^[26–28]

The questionnaire was given individually to the consenting individuals and collected back following completion. It was in English language; help in explaining the items and writing the responses were provided when needed by the participants. Identifiable data was not collected, and anonymity of the survey data was highlighted.

Sample for the study ($n = 394$) included individuals above 18 years of age, attending medical or psychiatric units, attendants or caregivers of the patients, staff and health professionals in the organizations to include a sample from the community. It was attempted to have comparable representation from both genders and age groups. The information was collected in four tertiary level medical centers in Manipal ($n = 99$), Cuttack ($n = 92$), Mangalore ($n = 40$) and Delhi ($n = 163$) during 2001–2002. The project was considered as noninterventional survey by the Ethics Committee of Quality of Life Research Development Foundation. Data were analyzed by SPSS version 18 (SPSS Inc, Chicago); the statistical tests used were Chi-square, and *t*-test. Significance was set at standard $P < 0.05$ level.

Results

The sample consisted of 210 males (53.3%) and 184 females (46.7%). The mean age of the sample was 31.1 ± 10.9 years; males with 33.7 ± 12.1 and females 28.1 ± 8.7 years. Demographic details are given in Table 1. There were 14.2% students, 3.6% unemployed, 4.3% housewives; 0.8% retired; 9.7% workers, 14.5% clerks/officers, 5.1% business persons, and 48.0% professionals. There was no difference in the social adjustment between the two genders, but quality of life was better ($P < 0.05$) in females (7.3 ± 1.9) compared to males (6.8 ± 1.9). Clinical categories of the participants are given in Table 2.

Almost half (49.5%) of the participants reported stressful life events in the previous year (51.1% females and 48.1% males). The proportion of people (37.1%) reporting multiple

events were more than that for single events (23.1%). Common life events reported in the past year were: Financial problems (19.3%), family problems (18.5%), marital problems (18.3%), bereavement (15.7%), major illness of self/family members (15.7%), job-related problems (12.2%), exam-related problems (12.2%), social problems (11.9%), property disputes (8.1%), legal problems (2.5%), etc.

The cognitions and behaviors of the participants related to suicidality are given in Table 3. Participants were asked to describe situations where they would consider suicide for themselves. In response, a considerable proportion (29.7%) of participants reported that they would consider suicide for themselves in certain circumstances which were: Incurable illness (9.4%), feeling of helplessness (3.1%), loss of face/respect (2.1%), stress at workplace (2.0%), bereavement, failure in the exams, family problems (1.8% each), worthlessness (1.6%), etc.

There were 28 (7.1%) participants (7.6% females and 6.7% males) with a history of attempted suicide. The sociodemographic and clinical comparison of those with and without a suicide attempt history is given in Table 4.

Analysis of suicidality in various clinical categories [Table 5] suggested that significantly more proportion of participants with current mental illness reported death wish and suicidal ideas. Similarly, ideas of life not worth living were reported in significantly higher proportion of participants with history of mental illness and those with current physical illness.

Awareness and attitude about suicide and suicide attempters

Most of the participants (87.1%) felt that the suicide rate was increasing. A majority (66.2%) felt that suicide is sinful, and 10.4% felt that their religions allow suicide in some circumstances. More than half (61.9%) knew that suicide attempt was punishable in India, and 42.4% felt that suicide attempters should be punished.

Participants were asked to reflect about “why do persons attempt suicide.” The responses were: Financial difficulties (39.1%), stress in workplaces (22.4%), failure in love (18.5%), mental illness (15.7%), failure in life (13.7%), incurable illness and disability (11.9%), social causes (including lack of social support and altruism) (8.4%), failure in examinations (7.6%), helplessness (6.4%), marital problems (5.8%) etc., most of the participants felt that the attempters have stress; 28.7% felt all the attempters have it, while 52.8% felt most and 14.2% felt a few attempters have stress. In response to whether attempters have mental illness, more than half (51.5%) participants felt that a few of them have it, whereas 30.2% responded that most attempters have mental illness, and 10.9% felt all attempters are mentally ill. It was specifically asked whether the suicide attempters have the intent to die; 42.6% participants perceived that most of the attempters have it, 34.0% felt a few and 17.3% felt all the attempters have intent to die.

Table 1: Sociodemographic profile

Variables	Female	Male	Total
Age*			
18-24	44.0	21.0	31.7
25-40	45.1	53.8	49.7
41+	10.9	25.2	18.5
Education			
School	8.6	7.6	8.2
College (+2/intermediate)	7.1	7.6	7.4
Graduate (bachelor)	32.1	28.1	29.9
Postgraduate/university (masters/professional)	52.2	56.7	54.5
Marital state			
Married	45.7	54.3	50.3
Unmarried	54.3	45.7	49.7
Living condition*			
Alone	38.0	23.3	30.2
Nuclear	38.0	35.2	36.5
Joint	23.9	41.4	33.2
Religion*			
Hindu	70.7	87.6	79.7
Christians	20.1	5.2	12.2
Muslim	5.4	4.3	4.8
Other	3.8	2.9	3.3
Economic status			
Low	2.7	3.3	3.0
Middle	83.7	81.0	82.2
High	13.6	15.7	14.7

* $P < 0.000$, figures are in percentages

Table 2: Clinical status of the participants

Clinical categories	Female	Male	Total
Current mental illness	8.2	16.2*	12.4
Past mental illness	8.7	12.4	10.7
Current physical illness	10.9	17.1	14.2
Past physical illness	12.5	12.9	12.7
Family history of psychiatric illness	5.4	15.7†	10.9
Family history of suicide attempt	6.5	7.1	6.9
Family history of suicide	4.9	8.6	6.9

* $P = 0.05$, † $P < 0.01$, figures are in percentages

Table 3: Suicidality in the participants

Suicidal cognitions and plan	Occurrence		Frequency			Gender	
	Never	Ever	Often	Sometimes	Hardly ever	Female	Male
Ever felt life not worth living	55.8	44.2	4.8	24.1	15.2	50.5*	38.6
Ever had death wish	73.1	26.9	3.0	15.0	8.9	34.2†	20.5
Ever had suicidal ideas	75.4	24.6	1.5	11.9	11.2	29.9*	21.0
Ever made suicidal plans	87.6	12.4	2.5	3.0	6.9	15.8‡	9.5

* $P<0.05$, † $P<0.01$, ‡ $P=0.061$, figures are in percentages

Table 4: Comparison of participants with and without suicide attempt history

Category	Variable	Not attempted (n=366) (%)	Attempted (n=28) (%)
Gender	Female	46.4	50.0
	Male	53.6	50.0
Age categories	Up to 24	31.4	35.7
	25-40	49.5	53.6
	41 and over	19.1	10.7
Education†	School	7.7	14.3
	College	6.3	21.4
	Graduate	29.2	39.3
Marital state	Postgraduate	56.8	25.0
	Unmarried	49.5	53.6
	Married	50.0	42.9
Religion‡	Widowed/separated	0.6	3.6
	Hindu	81.1	60.7
	Muslim	4.1	14.3
	Christian	12.6	7.1
Economic status*	Other	2.2	17.9
	Low	2.7	7.1
	Medium	81.4	92.9
Family type*	High	15.8	0.0
	Alone	30.3	28.6
	Nuclear	38.0	17.9
Suicidality	Joint/extended	31.7	53.6
	Ever felt life not worth living‡	40.5	92.9
	Ever had death wish‡	22.7	82.1
	Ever had suicidal ideas‡	19.7	92.9
Mean age (SD)	Ever made suicidal plans‡	7.6	75.0
		31.3 (11.1)	28.1 (8.2)
	Social adjustment: mean (SD)†	7.3 (1.8)	6.1 (2.8)
	Quality of life: mean (SD)†	7.1 (1.8)	5.8 (2.4)

* $P<0.05$, † $P<0.01$, ‡ $P<0.001$, figures are in percentages unless where stated. SD: Standard deviation

Participants were asked to reflect about the situations or reasons that they consider as appropriate for suicide. The responses were: Incurable illness and disability (11.7%), financial difficulty (9.2%), family problems (5.4%), depression (4.9%), stress in workplace (4.4%), mental illness (2.9%), failure in love (2.4%), failure in examination (1.8%), failure to achieve expectations (1.6%),

helplessness (1.3%), and 6.6% reported that they did not know.

It was tried to find out whether people can identify the talk or behavior suggestive of suicidal risk. While only 8.6% said they did not know and 17.5% did not answer, a considerable proportion indicated behaviors that they considered could identify the risk. These were: Talking of death (20.9%), depressed mood, crying spells (17.0%), remaining withdrawn (16.7%), unusual behavior (7.8%), negative talk (6.6%), expressing helplessness (3.8%), aggressive behavior or irritability (3.6%), decreased interest (2.0%), expressing hopelessness (1.8%), etc.

It was ascertained who the participants think can help a person with suicidal plans; the responses were: Friends and confidantes (45.7%), family members (42.6%), doctors (26.1%), psychiatrists (12.2%), counselor (7.8%), psychologist (5.6%), anybody (3.6%), God/religious heads (3.6%), victims themselves (3.0%), etc., Although most responses suggested who can prevent, 3% of responses included enemy, competitor or abettor.

The ways of suicide prevention were also reflected by the participants to an open-ended question. While 12.2% did not answer, 2.3% felt it was not possible, and 2.5% felt they did not know; a considerable proportion responded. The common reported methods were: Counseling/psychotherapy (27.7%), solving the current problem (10.7%), allowing ventilation (9.1%), moral teaching (religion, philosophy, attitude to life and death) (9.1%), trying to change the perspective (6.6%), psychiatric or professional help (7.6%), treatment of mental illness (6.6%), support from the family (6.6%), education of family members about risk (5.6%), support (5.5%), sympathy and understanding (5.3%), changing attitude of the society (5.1%), support from friends (4.8%), instilling positive thinking (4.3%), stress management/improving coping skills (4.1%), etc.

It was interesting to note that 56.1% of participants felt that most of the suicides are preventable, 25.6% felt only a few are preventable whereas 12.7% participants reported that all attempts can be prevented.

Discussion

This study explored the suicidality and attitude toward suicide in a sample of Indian population and suggested

Table 5: Suicidality in different clinical groups

Clinical categories	Ever had the following suicidality				
	Life not worth living	Death wish	Suicidal ideas	Suicidal plans	Suicide attempt
Current mental illness	59.1	40.8 [‡]	30.6 [*]	14.3	8.2
Past mental illness	61.9 [*]	30.8	35.7	9.5	0.0
Current physical illness	51.8 [‡]	35.7	17.9	10.7	7.1
Past physical illness	48.0	32.0	28.0	16.0	8.0
Family history of psychiatric illness	44.2	37.2	16.3	9.3	4.7
Family history of suicide attempt	51.9	33.3	29.6	14.8	7.4
Family history of suicide	44.4	37.0	22.2	14.8	11.1

* $P < 0.05$, [‡] $P < 0.001$, figures are in percentages

factors associated with suicidal cognitions and behavior. The survey results highlighted various suicide-related experiences in the participants. About 7% of the participants had experienced suicide in their family. A considerable proportion had felt life not worth living (44.2%), had death wish (26.9%), suicidal ideas (24.6%) and plans (12.4%) during their lifetime. These were comparable with few other studies in the region.^[9,14] These figures were understandably less than those reported involving psychiatric patients or following disasters.^[21]

Comparing the profile of those who had an attempted history with those who did not, it appears that lower education levels, people from Muslim and other religion, lower economic status, joint families were overrepresented. Lower education levels,^[29,30] lower-middle economic status have been reported to be associated with suicide attempt in Indian setting.^[4,29] It was interesting to note that a considerable proportion of participants with attempt history were from joint families. Strong attachment and integration with family is known to be protective against suicide attempt;^[31] however, the findings differ regarding joint family background:^[3] while some studies report higher proportions of attempters come from nuclear families, there are many which suggest higher proportions and greater risk with joint families.^[3,32] Similarly, although suicide rates are lower in Muslim religion, there are observations to suggest that suicide attempt rates do not appear to be lower in Muslims compared to non-Muslims.^[33] The proportion of participants from Muslim religion was low (4.8%) in this survey, and the sample may not be representative of the general Muslim population. It is identified that there is inadequate research in this area, which needs to be done in a representative large sample.

In this study, the participants with current psychiatric illness had higher suicidal cognition and attempt, but it was statistically significant only for ideas of life not worth living and death wish. Interestingly social adjustment and quality of life appeared relevant in suicide attempts. Participants with history of attempt reported comparatively poorer social adjustment and quality of life. It might be difficult to explain as we did not study the temporal relation between the attempt and these perceptions. Whether the history of

suicide attempt and factors associated with it might be influencing overall view on social adjustment and quality of life of individuals may need more focused study in a larger sample size. On the other hand, it can be reflected that improving social adjustment and quality of life through available means might help in prevention efforts.

The study results suggested a degree of acceptability of suicide in the Indian community. It was interesting to note that the participants could suggest situations or reasons where they would consider committing suicide themselves or which were appropriate for suicide. It shows that suicide is being considered as a solution to some of the life's problems. Indian philosophy upholds a death accepting stance;^[34] and it is known that the degree of acceptance of suicidal behavior in a particular society tends to correlate with suicide rates.^[35] This might explain to an extent the high suicide rate in India. The findings suggest the need for public education about the available solutions and emphasis on appropriate help-seeking.

A proportion of participants were aware about the risk factors for suicide, how to identify the risk behaviors, ways that could be helpful as preventive measures and who could help. Most of them could associate stressful life events with suicide, the relationship of which is well-reported.^[36,37] However, considering the proportion of participants that were aware of suicidal risk indicators; it would appear that there is a need to provide such information to the general population so that the persons at risk can be identified and supported early. Responses regarding who can help in prevention of suicide were indicative of the level of awareness about where to seek help. These seem appropriate and can be reemphasized in the public education drives in the communities. Many participants could reflect about the possible methods that could help in suicide prevention efforts that included help from family, professionals and problem solving. However, it was apparent that there was still a scope of providing further information about it through public education.

There were few prevalent ideas that would merit further discussion. Many participants felt suicide was sinful which was probably secondary to the religious preaching and might be protective in nature. However, when someone attempts

or commits suicide, these ideas add further burden to the distress of family members. This is a sensitive religious issue and needs compassionate intervention about the behavior and its possible antecedents. Support probably from religious leaders might be useful in some circumstances in this regard.

Many participants were aware that suicide attempt was punishable in India; however, it was a concern that a sizeable proportion of them felt suicide attempt should be punishable. There could be various reasons, and some of them could be the threats of “fast on to death” or “self-immolation” for political or other protests; or people might see attempters as seeking attention. However, it cannot be overemphasized that there is a need for public education for the change of perspective.

Limitations

The sample size of the study is relatively small. The sample is represented more by younger and the higher educational level people and less from the lower socioeconomic status. Although the population of persons who are currently ill was low, it may be still overrepresented compared to general population. The sample is not representative of the general population of India, and so the generalizability of the findings is rather limited. However, it can reflect the status in the population attending hospital and related institutions. The clinical history e.g., current and history of illness was based on the self-report of the participants only without any scope of verification. The questionnaire did not include any standardized scales on life events or social adjustments. It has been reported that in the surveys of similar kind many people do not report their suicidal ideas or attempt.^[38] The questionnaire contained few sensitive areas that might have affected the responses even if it was highlighted to the participants that the responses were anonymous.

Conclusion

In the studied sample of adults, it appeared that suicidal thoughts and behaviors were not uncommon. The participants were well aware about the issues surrounding suicidality. Interestingly, there were conditions where people believed suicide as an option; while at the same time there were views that it was a sin, and it should be punished. Overall, it appeared that the suicidal behavior, risk factors and possible preventive measures were well understood by the participants. A large-scale study on these may be better to consider the findings generalizable to the wider population. Besides, as the suicidal trends vary over time, it is worthwhile to repeat this kind of surveys which may help to review the changing attitudes and to reflect on societal and public health measures for suicide prevention.

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Conflicts of interest

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