Suicide prevention competencies among urban Indian physicians: A needs assessment

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ABSTRACT

**Introduction:** India accounts for the highest estimated number of suicides in the World. In 2012, more than 258,000 of the 804,000 suicide deaths worldwide occurred in India. Early identification and effective management of suicidal ideation and behavior are paramount to saving lives. However, mental health resources are often scarce and limited. Throughout India, there is a severe shortage in mental health professions trained, which results in a treatment gap of about 90%. A comprehensive needs assessment was undertaken to identify the nature of the deficits in suicide prevention training for physicians in three Indian cities: Mumbai, Ahmedabad, and Mysore.

**Materials and Methods:** The study was carried out in several concurrent phases and used a mixed-method approach of converging quantitative and qualitative methodologies. Data were collected using survey questionnaires, focus groups, consultations, and environmental scans. A total of 46 physicians completed the questionnaire. Focus groups were conducted in Mumbai and Ahmedabad with 40 physicians. Consultations were carried out with psychiatrists and psychiatric residents from hospitals and clinics in Mumbai, Ahmedabad, and Mysore.

**Results:** Training gaps in suicide prevention exist across the health care professions. Existing training lacks in both quality and quantity and result in critical deficits in core competencies needed to detect and treat patients presenting with suicidal ideation and behavior. Only 43% of the surveyed physicians felt they were competent to treat suicidal patients. The majority of surveyed physicians believed they would greatly benefit from additional training to enhance their suicide risk assessment and intervention skills.

**Conclusions:** There is a dire need for medical schools to incorporate suicide prevention training as a core component in their medical curricula and for continuing medical education training programs for physicians to enhance competencies in early detection and management of suicidal behavior.

**Key words:** Needs assessment, suicidal behaviour competencies, suicidal ideation, suicide prevention

INTRODUCTION

Suicide is one of the leading causes of premature death and is considered a public health and social problem...
worldwide. Low-and middle-income countries (LMIC) bear most of the global suicide burden with an estimated 75% of suicides occur in these countries. Suicides in the LMICs in the South-East Asia region account for 39% of the global suicides. India accounted for the highest estimated number of suicides overall in 2012 with 258,075 suicides. A high proportion of adult suicide (34.5%) deaths occurred between the ages of 15 years and 29 years followed by those in the age group 30–44 years (34.2%).

The 2012 age-standardized suicide rate of 21.1/100,000 population masks the substantial geographic intra-country variations across the 29 states and 7 Union Territories in India. Suicide rates range from 0.8 to 36.8/100,000 population, to rates as high as 148/100,000 population in some of the Southern States. Suicide rates tend to be higher in states with greater economic disparity; the more economic disparity within the state, the more people kill themselves. The highest suicide rates are in rural areas where approximately 60% of suicides occur.

There is a high proportion of young adults among suicide attempters, indicating a mean age of 25.3 years. Studies from general hospital settings also report that suicidal ideation is more frequent among those in the 16–45 years age group. The precise number of people hospitalized and injured is not available for intentional injury; however, several hospital-based reports have indicated that suicide attempts represent 5–15% of the total emergency and medical hospital admissions. The economic loss due to suicides and suicide attempts have never been examined in a comprehensive way; however, it is estimated that 2–3% of the total economic burden in India is due to suicide.

The need for suicide prevention services has been neglected in India. There is a severe imbalance in the resources for mental health services between rural and urban areas and between poor and affluent states. While 73% of the population lives in rural areas, 75% of the health infrastructure and trained human and other medical resources are concentrated in urban areas. Only 31.9% of all Government Hospital beds are available in rural areas.

The lack of health professionals is one of the primary reasons for the inability to deliver adequate intervention for suicidal persons. The ratio of mental health professionals to the general population is extremely low. The scarcity of mental health professionals, particularly in rural areas, where most suicides occur, renders specialist psychiatric care out of reach for most Indians. In a population of about 1.214 billion people, the ratios for every 100,000 people are: 0.3 psychiatrists, 0.166 nurses, 0.0477 psychologists, and 0.033 social workers. It is estimated that the total number of psychiatrists can provide care for about 10–20% of the total burden of psychiatric disorders, which results in a “treatment gap” that is estimated to be at 90%.

The rate of training psychiatrists in medical schools is 0.0364/100,000 population in India, which combined with the fact that the majority of primary health care doctors and nurses “have not received official on-service training on mental health within the last 5 years” indicates that the treatment gap is not likely to be reduced in the near future. The shortage of trained human resources for mental health care and treatment is a paramount obstacle to suicide prevention.

According to recent surveys, nearly half of all doctors in district hospitals, 90% of staff in community health centers, and 80% of staff in primary health centers are in need of suicide-specific training. However, there are few opportunities for continuing medical education (CME), especially those that focus on mental health and suicide prevention. While the Central and State Governments in India have been regularly conducting training programs for primary care physicians working in rural and urban areas, training opportunities for nonphysician mental health professionals are lacking.

This comprehensive needs assessment was undertaken to identify the nature of the deficits in suicide prevention training of physicians in three Indian cities: Mumbai, Ahmedabad, and Mysore. The overarching objective was to inform the development and formulation of future suicide prevention continuing education curricula aimed at enhancing competencies in risk assessment and management of individuals at-risk for suicide.

**MATERIALS AND METHODS**

The study was carried out in several concurrent phases, which included environmental scans, workshops, focus groups, and informal interviews to capture the social, geopolitical, and cultural circumstances relevant to suicide prevention competence among Indian physicians. Ethical approval was obtained from Research Ethics Boards at the University of Western University and Seth G. S. Medical College in Mumbai, Indus University in Ahmedabad, and J. S. S. Medical College in Mysore in India.

Mixed methods approach of collecting closed-ended survey data from questionnaires, focus groups, and consultant’s feedback was used in all participating regions. Training needs assessment questionnaires were distributed at the start of each training workshop. Completing the questionnaire was voluntary and anonymous. Of the 250 questionnaires distributed to workshop attendees in Mumbai and Mysore, 144 were completed and returned. Thus the return rate was 57.6%. Nearly, a third (31.9%) of the questionnaires were completed by physicians. The findings relating to nonphysicians healthcare providers are to be published elsewhere. At the end of each workshop, a feedback session was conducted with the workshop attendees. The
objective of the feedback sessions was to garner additional information about perceived gaps in training and to inform and broaden the researchers’ understanding of the obstacles to suicide prevention in India as seen from the perspective of diverse groups of healthcare professionals. Focus groups with a total of 40 physicians were held after each of the training workshops in Mumbai and Ahmedabad. Consultations were carried out with psychiatrists and psychiatric residents from hospitals and clinics in Mumbai, Ahmedabad, and Mysore.

Data analysis
Statistical analyses were performed with SPSS for Windows, version 20 (SPSS, Inc., Chicago, USA). Descriptive analyses (mean, standard deviation, median, frequencies) for all continuous key variables are presented. Data are presented as valid percentages, which eliminates missing cases. Pearson product-moment correlations were used to measure associations among continuous variables. For all analyses, statistical significance was set at 0.05 two-tailed. The data from focus group feedback were analyzed using content analysis, an approach that comprehensively examines participant commentary for trends, and emerging themes.[18]

RESULTS
A total of 46 physicians completed the questionnaire (16 in Mysore and 30 in Mumbai). The sample characteristics are indicated in Table 1. Over one-half (58.5%) of the surveyed physicians indicated their current clinical duties do not include suicide prevention, and 57.8% revealed they do not have time in their clinical practice to assess for suicide risk. Only 8.9% of the physicians indicated that they provide crisis and emergency services along with their other duties. In instances when patients present with symptoms of depression and/or anxiety, nearly half of the surveyed physicians (44.2%) reported do not ask the patients whether they have any suicidal thoughts. The physicians who do ask about suicidal thoughts revealed that they do so inconsistently, resulting in <50% of the time and only 11.1% of surveyed physicians inquire about suicidal thoughts and behavior each time they see a patient who appears to be depressed or anxious. In a 24 month period, only 39% of the surveyed physicians had contact with a patient they deemed to be suicidal. Of those suicidal patients seen by the surveyed physicians, 15.6% had attempted suicide, and 18.2% subsequently killed themselves. Over one-half (59.4%) of the surveyed physicians who had contact with suicidal patients indicated they intervened and treated the patients. In terms of postvention, less than one-half of the surveyed physicians (44.7%) indicated that they have provided postvention to a family member or a colleague after a suicide.

Competencies
Surveyed physicians were asked to rate their perceived knowledge about the following: Facts about suicide, risk factors, inquiring about suicidal ideation and intent, and referral to appropriate resources. The questionnaire also measured perceived levels of competence and comfort level in assessment, treatment, and referral of suicidal patients. The rating consisted of a 5-points Likert-type rating scale on a continuum from 1 to 5 (1 = “Not at all” and 5 = “Fully”). We combined the ratings into 3 new categories: 1 = Low; 2 = Medium; and 3 = High. The findings are displayed in Table 2.

The majority of the surveyed physicians indicated that their knowledge about facts of suicide, suicide risk factors, how to ask about suicidal ideation, and how to get help for a suicide patient was medium or low (73.8%; 65.9%; 75%; 71.8%, respectively).

The surveyed physicians were asked to rate their competence level in assessing, treating and referring suicidal patients. As indicated in Table 1, the majority (54.8%) of surveyed physicians rated their competence to assess suicidal patients as high. However, less than half (42.9%) felt they were competent to treat suicidal patients, and only 31.6% felt they had the ability required to refer patients to appropriate resources.

| Variable | Mean (SD), % |
|----------|-------------|
| Age in years (ranged 26–64) | 42.5 (SD=13.8) |
| Gender | 52.2 |
| Male | 47.8 |
| Education | 67.4 |
| MBBS | 13.0 |
| Master of arts | 4.3 |
| Ph.D | 15.8 (SD=11.6) |
| Work environment | 60.9 |
| Government facilities | 77.8 |
| Clinical settings | |

| Variable | Low (%), Medium (%), High (%) |
|----------|-----------------------------|
| Knowledge | 33.30, 40.50, 26.20 |
| Suicide facts | 22.00, 43.90, 34.20 |
| Risks factors for suicide | 37.50, 37.50, 25.00 |
| How to ask patient about suicide | 28.20, 43.60, 28.20 |
| How to get help for patient |  |
| Competence | 2.40, 42.90, 54.80 |
| Assess | 28.60, 28.60, 42.80 |
| Treat | 26.30, 42.10, 31.60 |
| Comfort | 52.30, 20.50, 27.30 |
| Asking | 11.60, 48.80, 39.60 |
| Assessing | 37.50, 30.00, 32.50 |
| Referring | 6.80, 27.30, 65.90 |

SD – Standard deviation

Table 1: Sample characteristics

Table 2: Physicians’ knowledge, competence, and comfort in assessing and managing suicidal patients
The majority of surveyed physicians rated their comfort level as low when asking patients about suicidal ideation (52.3%). Conversely, 65.9% rated their comfort level in referring suicidal patients as high. While the majority of physicians rated their comfort in assessing suicidal patients as medium and high (88.4%), nearly equal proportion of physicians rated their comfort level in treating suicidal patients as low (37.5%), medium (30%), and high (32.5%).

The vast majority of the surveyed physicians stated that training to enhance their skills in the identification of suicidal patients, assessment of suicide risk, and the management and treatment of suicidality is essential (97.7%, 97.8%, 100%, respectively). The majority of surveyed physicians believed that they would greatly benefit from additional training to enhance their suicide risk detection skills, suicide assessment skills, intervention skills, and management of suicidal behavior (69.8%; 65.2%; 55.6%; 50%, respectively).

**Emerging themes from focus groups and interviews**

Most of the interviewed physicians agreed that suicide assessment needs to be part of their clinical work. However, they also acknowledged that because of insufficient training they lack the skills and core competencies necessary to detect suicidal ideation. Consequently, “80% of the distressed patients are not asked about suicidality,” which prevents potentially life-saving interventions from occurring.

According to the focus groups, the core clinical competencies that are required to detect, assess and manage suicidality have been consistently overlooked by the colleges, universities, clinical training sites, and licensing bodies that train health professionals. The training gaps in suicide prevention exist across the health care professions and existing training lacks in both “quality and quantity” and result in critical deficits in competencies. The time allocated to teaching knowledge and skills in psychiatry is disproportionately brief. Considering the paucity and uneven distribution of psychiatrists and other mental health professionals in India, integrating suicide prevention in primary care and in the public and private sector is essential to the prevention of suicide. While psychiatric rotations in medical school have been made compulsory since 2008, the Medical Council of India requires medical trainees to be offered only 40 h over 4-week internship training. Among the competencies, the student must demonstrate the ability to assess suicide risk and refer appropriately. However, the existing model of Medical Education does not adequately prepare primary care physicians to meet the increasing demands of psychiatric illness and suicidality. Due to insufficient clinical training, primary care physicians lack the knowledge and skills to identify, treat and manage suicidal patients.

Many of the physicians believed that their formal medical education inadequately prepared them to recognize mental health problems or to treat psychiatric problems. Some felt that the training needs to enhance their knowledge about “psychiatric disorders, in general” and about suicide “indicators, warning signs, and symptoms for suicidality” in particular. They expressed that any training also needs to address their lack of knowledge about “appropriate referral to care” and to “whom they should refer” their suicidal patients. Consequently, physicians have inadequate knowledge of how to recognize psychiatric symptoms, how to evaluate patients for psychiatric illness, or how to treat patients presenting with personality disorders or difficulties related to alcohol and substance misuse. Many of the physicians indicate that in general there is a lack of knowledge regarding mood disorders symptomatology and that symptoms of depression, in particular, are poorly recognized. Consequently, depression often goes untreated.

Ambivalence about treating suicidal patients stemmed from a lack of knowledge and skills. Physicians “did not know how to respond and wanted to avoid the risk of responding incorrectly.” They also lacked “counseling and psychotherapy skills required helping and supporting suicidal patients.” Consequently, they preferred not to ask distressed patients whether they have suicidal thoughts. Furthermore, to avoid entanglements with the police and the legal system many physicians did not ask whether the behavior was a suicide attempt.

For most physicians in India, there are few educational opportunities to enhance formally their knowledge and skills in the assessment and treatment of suicidal patients. As one participant from Ahmedabad explained, “CME to date does not include suicide prevention training.”

The workshop feedback demonstrated that physicians were receptive to the idea of CME in suicide prevention, which is encapsulated by one physician’s statement, “(the workshop was) an eye opener… changed my attitude towards psychiatry and suicide.” While few educational opportunities exist to enhance formally physicians’ knowledge and skills in the assessment and treatment of suicidal patients, this needs assessment demonstrates the enthusiasm for, and potential benefit of training programs to enhance physicians’ competencies in suicide prevention.

**DISCUSSION AND CONCLUSIONS**

The needs assessment has a number of limitations that should be considered when interpreting the results. The findings presented provide a snapshot of suicide prevention and intervention training gaps rather than a full inventory of essential and salient components in the curricula. The findings also present the participants’ interpretation of suicide prevention services available in the regions rather than a full account of services provided. In addition, convenience sampling techniques were used to recruit
Suicide is a significant public health problem in India. Compounding this problem are the low amount of financial resources allocated to mental health services, the scarcity of mental health human resources, and the lack of mental health services that are geared toward crisis intervention. Concomitantly, physicians lack the training in the detection of early indicators of suicidal behavior. Comprehensive suicide assessments are complex and thus need to be handled with an understanding of the complex issues contributing to the suicidal behavior. Despite the pervasiveness of suicidal patients in clinical practice, physicians receive little curriculum-based training in the assessment, management, and care of suicidal behavior during their undergraduate medical training.

Ideal suicide prevention training programs need to focus on early identification, raising awareness, reducing stigma, and addressing the continuing care and needs of people who engage in suicidal behavior. For suicide-specific training to be successful, it is essential for it to focus on issues frequently confronted by physicians (i.e., depression, anxiety, suicidality) in their clinical practice. In addition, the training curriculum needs to include the theory that is relevant to the social context and include evidence-based perspectives and data which could be transferred to clinical practice. Studies by Appleby et al. and Hawgood et al. have demonstrated that positive attitudes toward suicide prevention are highly correlated with developing and maintaining acquired knowledge and skills in suicide prevention. From Sweden and Hungary have shown promising results in reducing community suicide rates by improving physicians’ knowledge of depression and its treatment including recognizing suicide risk and responding appropriately. Research has shown that brief training in clinical care for suicidal patients significantly increased confidence in assessing suicide risk and managing suicidal behavior and favorably impacted clinical practice. These findings are highly relevant to the sample of physicians in this study who all saw the need and importance of suicide-specific CME

These studies indicate that suicide-specific training for physicians in India can lead to decreased incidences of suicide and untreated depression or other psychiatric disorders. India would also be well-served by a nationally recognized set of minimum essential skills and core competencies necessary for suicide risk assessment, management and care, and by a system to certify that health professionals have achieved mastery of core competencies. This needs assessment study provides valuable baseline data from which future suicide-specific CME programs can be formulated and implemented to ultimately reduce the rate of suicide in India.

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Conflicts of interest
There are no conflicts of interest.

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A Poem

WHO: World mental Health Day 2015
Theme: “Dignity in mental health”

THE ELOQUENT UTOPIA

I am the showcase, of the joy,
The eloquence that hides in every coy.
The world, endearing in its limitless glory
Ceases to be. Now, just a tale of gory.

I am now, all but a seeming shadow,
Despised by the ones I loved, out this window
I stare at the emptiness that fill
This treacherous window sill.

Lo! Let there be light,
For, I am determined, to fight,
Wiping the motion in emotion,
I am socially all but in attenuation.

The mind pursues the utopia,
Where life isn’t just sepia.
Arose! Awake! The time to change
Is knocking my world, so break the cage.

Walk with pride, the world is just.
Join hands, let us beget trust.
The right to be informed, to good healthcare.
Spread the love, and not just sit and stare.

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