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Development of an IEC resource (brochure) on suicide prevention for college students: A qualitative study in the Indian context

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Abstract:

BACKGROUND: Information Education Communication (IEC) materials play a vital role in behavior change by raising awareness about health issues. In India, suicide is the leading cause of death in the age group of 15–39 years, exemplifying the pressing need for raising awareness about suicide prevention. This study aimed to develop a brochure on suicide prevention for young adults with the help of scientific methodology.

MATERIALS AND METHODS: A cross-sectional qualitative research design was used in the study, and purposive sampling was used to collect the data. The study analyzed the awareness level and existing knowledge gap about suicide prevention among college students with the help of focus group discussions (FGDs) conducted independently among mental health experts, college teachers, and college students. Based on the findings from the FGDs, a comprehensive brochure was developed. The qualitative data collected by FGDs were analyzed using direct content analysis.

RESULTS: The findings of the FGDs helped identify the knowledge gaps with regard to young adult suicide prevention, and a brochure was prepared to address the same.

CONCLUSION: The development of young adult suicide prevention IEC resources pertinent to Indian settings is crucial. To bridge the knowledge gap on suicide prevention among college students and raise awareness, a brochure was developed based on scientific findings of the FGDs.

Keywords:

Health education, IEC resources, suicide prevention

Introduction

Youth suicides are a public health concern with the increasing number of suicides among adolescents and young adults. Globally, there is a clear shift in the predominance of suicides from the elderly to the younger population. [1] In India, suicide is one of the leading causes of mortality for people between the ages of 15 and 39 years. [2] As of India's demographic profile of 2019, a

total of 17.79% and 41.24% of the population fall under the age group of 15–24 years and 25–54 years, respectively. [3]

The risk for suicide among the youth population constitutes a dynamic and complex interaction of genetic, psychological, and social factors. To address these causal factors of suicide among youth, there is a need of systematic, multipronged, and collaborative preventive strategies for capacity building. Furthermore, the

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escalating rates of suicide among the country's youth have significant socioeconomic costs and ramifications in the loss of lives. This calls for an immediate and effective strategy for suicide prevention among adolescents and young adults.

Suicide prevention has been a major focus for the National Mental Health Policy of India. [4] However, studies on effective suicide prevention programs and interventions are limited when it comes to the young population. As India moves forward with the implementation of the National Suicide Prevention Strategy, the inclusion of the young community as a major stakeholder is important. [4] The policy guidelines that cater to reinforcing building collaborative partnerships, enhancing capacity of health services, developing community resilience, and strengthening surveillance for suicide prevention must align with addressing youth suicide and also for creating preventive awareness measures for the same.

When evaluating the effective methods of suicide prevention, the gatekeeper training can be highlighted as it has demonstrably increased awareness. [5] However, studies have also shown that gatekeeper training alone can be insufficient to bring about long-term changes in the community. [6,7]

Information Education and Communication (IEC) materials can be an effective method to impart knowledge and awareness in the community.[8] These materials can be prepared in various forms such as posters, murals, videos, brochures, and flip charts. A book by Davis was published with a vision to sensitize the school personnel about adolescent suicides, particularly mentioned of resource materials such as pamphlets, manuals, film strips, videos, and other reading materials for children and young adults.[9] Various studies undertaken prove the effectiveness of IEC resources to increase suicide prevention knowledge and awareness among children, adolescents, and young adults.[10,11] In the Indian context, not many studies have focused on the use of IEC materials to increase suicide prevention awareness, especially among the young population in the community. However, one was a study conducted in the Sundarban region, which used a series of IEC materials coupled with training sessions to increase awareness around suicidality. This showed the positive impacts of IEC materials in increasing acceptance and understanding of the situation.[12] A similar study was conducted on adolescents from schools in Panipat, and IEC resources were found to be impactful in improving knowledge on suicide and its prevention.[13] IEC materials were also used by the Sikkim government to train the District Mental Health Program (DMHP) staff and primary health care (PHC) workers to educate them about the risk factors for suicide among the

community.^[14] The advantages of using IEC materials are that they can be used as reference aids even after the completion of the training session as they are handed out to the participants. IEC materials have been developed and successfully used by health organizations such as the National Health Mission by the Government of India and the World Health Organization (WHO) to increase awareness and knowledge of people in the community through various health campaigns.^[15,16]

India is witnessing alarming rates of youth suicides, and there is a dearth of reliable resources on suicide prevention for college students. The development of information material based on scientific research coupled with proper validation is rare and thus is essential in the present day. This study was conducted with the aim to develop a brochure on suicide prevention using a scientific methodology, specifically for young adults in college to increase awareness about suicide prevention among the youth.

Materials and Methods

Study design and setting

A cross-sectional qualitative research design was used in the study, and purposive sampling was used to collect the data. The cross-sectional qualitative study was conducted from December 2019 to May 2020.

Study participants and sampling

For the first phase of the study, 10 mental health professionals (male = 3; female = 7), 10 degree college teachers (male = 4; female = 6), and 12 degree college students (male = 7; female = 5) were selected. For the second phase, six subject experts were included in the process of validation. The number of samples was chosen based on the focused group discussion (FGD) conduction criteria and the availability of the participants. These groups were chosen to take into account the views of prominent stakeholders who potentially deal with young adults with suicidal ideations. To eliminate the language barrier, participants who could read, write, and speak in English were included in the study.

Ethical approval

The study was reviewed by the department's sub-ethics committee and later approved by the Institutional Ethics Committee. Written informed consent was obtained from the participants of the study.

Procedure

The study was conducted in two phases.

Phase 1: Three series of FGDs were conducted before the development of the brochure. The first was performed among ten mental health professionals from a tertiary

psychiatric hospital in Bengaluru. The mental health professionals consisted of two psychiatrists, three clinical psychologists, three psychologists, one yoga therapist, and one public health professional. The second FGD was conducted with 10 degree college teachers who taught Maths, Hindi, Physics, Chemistry, Biology, and Environmental Science. The third was conducted with 12 degree college students from urban Bengaluru who were enrolled in undergraduate courses. Before the conduction of the FGDs, three FGD guides were prepared and the FGDs were conducted following it. In case of FGD with college students, permission was sought from the concerned authorities of the selected college to depute twelve students from the age group of 18–21 years.

Phase 2: The FGDs were analyzed to identify the key themes. Based on the analysis, a creative brief of the fivefold brochure focusing on suicide prevention in English was prepared. An attempt was made to make the brochure culturally relevant and sensitive, which can be applicable to college students in the Indian scenario. The brochure was then given to six subject experts for face and content validation and was later modified based on feedback.

Analysis

The moderator took notes during the FGDs. The audiotaped FGDs were qualitatively analyzed using direct content analysis. Verbatim was transcribed to identify the important themes and subthemes. The transcripts of the groups were first individually analyzed to identify the subthemes and note the frequency counts. Then, the data were further collated under the broad themes, namely: (i) understanding mental health and suicidality among young adults; (ii) essentials of suicide prevention among young adults; and (iii) importance and components of resources related to suicide prevention.

Results

Theme 1: Understanding mental health and suicidality among young adults

Mental health experts

According to mental health experts, young adults have adequate knowledge of mental health. Some of the experts (n=4) opined that although they may not be readily seeking therapy they leverage the Internet and technology, to be familiar with mental health terms. Discussing the chief problems that young adults today face, experts (n=6) explained that the most common problems include academic pressure, peer pressure, and interpersonal issues with family and friends. Yet other experts (n=4) mentioned that aggression and sexual orientation identification are becoming common now. Moving to the coping mechanisms, all the experts (n=10) viewed that there is a spectrum of coping mechanisms to stress that today's youngsters adopt. When it comes

to matured and healthy mechanisms, experts (n = 8) mentioned that the use of art and craft, exercises, yoga, and talking to a friend are the usual ones. Experts (n = 2) mentioned that some indulge in excessive retail therapy, substance use, and stress eating.

Teachers

Most of the teachers were unsure whether young adults understood what mental health is. However, all the teachers (n = 10) opined that it is important to strike a balance between the mind and body. This balance will help deal with crises adequately. Speaking about the problems among young adults, they explained that peer pressure, academic pressure, family, expectation from parents, inferiority complex, lack of parental support, improper guidance, and relationship issues were some of the common issues (n = 7). Talking about coping mechanisms, teachers (n = 5) mentioned that many students find talking to their peers a good way to cope with their problems. Few teachers (n = 3)opined that there are some students who do not know how to cope and create an imaginary barrier around themselves, being socially withdrawn. Teachers (n = 4)felt gaming to be one of the newer methods of coping seen among students. Regarding help-seeking behavior, the teachers (n = 5) opined that students do not approach them for resolving their conflicts.

Students

According to most students (n = 8), good mental health meant being resilient. They opined that a mind cannot be free of worries; however, the power to look beyond those worries implies having good mental health. Talking about the major problems faced, some students (n = 6) explained low academic performance, peer comparison, and family expectations to be the most common ones. Speaking about coping mechanisms, some students (n = 4) spoke about listening to music, reading books, and practicing yoga and meditation, and others (n = 3) mentioned that talking to a close friend or a family member or playing with their pet was beneficial. Few (n = 2) mentioned that other coping mechanisms that they knew of were drugs and alcohol use and social media use. They also viewed them to be unhealthy methods, which bring harmful effects in the long run. Regarding help-seeking behavior, they preferred (n = 9) sharing their problems with their friends as they find them to be a safer method of coping. Only few (n = 2) students mentioned getting help from a mental health professional, which they found beneficial from their previous experiences.

Theme 2: Essentials of suicide prevention among young adults

Mental health experts

While anyone could be at risk to develop suicidal ideations, certain situations can play as major risk

factors (n = 10). Experts (n = 4) mentioned that the most common risk factors include a family history of suicides, lack of proper support systems, family discord, and history of previous attempts. Explaining the signs of suicidal ideations, the mental health experts' (n = 4)unkempt look, social withdrawal, low academic performance, anhedonia, and drastic behavioral changes are important symptoms. Other experts (n = 4) also mentioned that it is important to keep a note of nonverbal cues like their social media activities. Young adults indulge in social media statuses and posts explaining that they need help. Talking about how can a fellow peer help a young adult at risk, all the experts (n = 10) explained that a peer or a friend can always listen empathetically to the young adult. Many experts (n = 7) mentioned that it is important for the peer to understand that not everyone can be helped immediately and all the time. Experts (n = 5) also mentioned empowering the peers with a set of emergency numbers (e.g., a trusted adult). A few experts (n = 4) also mentioned that peers or anyone trying to help a person having suicidal thoughts should not trivialize the situation. It is important to take the person's consent before making a referral to a mental health professional unless there is an emergency situation. Mental health experts (n = 5) explained that peers can facilitate referrals or guide them to the correct channels. They can also help in bridging the gap between a person in need and a responsible adult.

Teachers

Talking about the risk factors, most of the teachers (n = 7)said that students who are "weak-minded" have suicidal ideations. A few of them also mentioned (n = 4) that if a young adult has history of harassment and abuses, it can trigger suicidal thoughts. Moving to the symptoms of suicidal ideations, most of the teachers (n = 10) explained that any kind of behavior, which is usually not seen in the person, can be a vital sign that something is wrong such as irregular sleep, eating too less or a lot, and crying spells. Few teachers (n = 2) mentioned that sometimes people who are good are "faking it." They show that they are happy, but are actually suffering inside. Discussions around the role of a peer of those having suicidal ideations revealed that few teachers (n = 6) felt that their classmates and friends could help and it would also be helpful if the peers could discuss with their teachers too.

Students

Talking about the risk factors, some students (n = 6) used words such as "faint-hearted" and "weak-minded" to refer to people having suicidal thoughts. They opined that these people are unable to control their emotions and lose their mental strength. Moving to the discussions around suicide prevention, some students (n = 6) mentioned that loneliness, irritability, behavioral changes, anger outbursts, and crying spells are the

important signs and symptoms. The college students did not have much to contribute regarding what they can do to help their friends who are having suicidal ideations. A few of them (n = 6) mentioned instilling positivity in a friend having suicidal thoughts, motivating the friend, providing assurance that things will be better, and trying to be a good listener.

Theme 3: Importance and components of resources related to suicide prevention

Mental health experts

All the mental health experts agreed on the fact that there is a dearth of resources related to suicide prevention, especially for young adults. Experts (n = 8) mentioned that no person directly comes to a mental health professional in a moment of crisis. The first point of contact for college students is their peers. Discussions around the components of the brochure led the mental health experts (n = 3) to explain the inclusion of lingos used by young adults to make it relatable to them. Some experts (n = 5) mentioned that it would be good to include storytelling to make it engaging.

Teachers

Some teachers (n = 6) mentioned that if a peer is empowered with proper knowledge, they can facilitate proper referrals so that the responsibility can be transferred to an adult faster. Explaining the components, some teachers (n = 4) opined to make the resource material relatable to young adults by including a story format to explain the concepts. Mention was also made to explain the role of a peer and where he should draw the line and inform a responsible adult to take over the charge.

Students

The students mentioned the importance of resource materials in their own way. Few students (n=4) explained that they do understand the importance of suicide prevention. However, when their fellow peers open up problems to them, they do not really know how to handle the situation. Some more students (n=3) mentioned that a compact resource material is available for young adults that they can refer beneficial for them. The students did not know what components need to be highlighted in a brochure. Some students (n=2) mention that illustrations along with the content can be interesting.

Discussion

The study aimed to develop a brochure on suicide prevention for young adults based on the present knowledge of mental health and suicide prevention among young adults. Efforts were made to include relevant stakeholders in the FGD to ensure the inclusion of a range of opinions.

Experts mentioned that young adults in the modern world are fairly knowledgeable about mental health due to easy access to the Internet and tend to learn about any symptoms pertaining to mental health online [Table 1]. Similar findings were found in a study where most of the participants had adequate knowledge about mental health and disorders.[17,18] Explaining major issues faced by today's young adults, all three groups identified academic pressure as one of the key issues. This is supported by similar studies conducted on the prevalence of psychiatric distress and associated risk factors among college students that can surge the risk of suicidality. [19,20] Thus, the brochure so created included the major risk factors leading to suicidal ideation that peers can refer and closely observe in those having ideations [Figure 1].

It is noteworthy that concerns with gender identity and sexual orientation, which are another critical issue for college students, were only noted by mental health professionals [Table 1]. This may be due to the stigma. A study on suicide among lesbian, gay, bisexual, and transgender (LGBTQ) college students explained that very little is known about the impact of prejudice driving depression and attempted suicide among LGBTQ college students due to stigma. The three groups acknowledged that there is a spectrum of coping mechanisms that college students use, ranging from healthy to a number of unhealthy coping mechanisms. The students also identified unhealthy coping strategies

including binge-watching, gadget addiction, smoking, and drinking as temporary fixes to their concerns. According to a supporting study, college students were aware of both healthy and unhealthy coping mechanisms. [22] Explaining help-seeking behavior, the majority of the stakeholders observed that college students do not immediately turn to parents or teachers when they are in crisis. This can be due to the stigma associated with seeking mental health support. [23]

Mentioning risk factors, experts listed about few of them such as history of suicides in family, family discord, and parental separation. A study that examined the risk factors for youth suicide also came to similar conclusions. [24] It is important to note that both teachers and students acknowledged that being "weak-hearted" can culminate in a young adult contemplating suicide. The colloquial phrase "weak-hearted," which was used by both teachers and students during the FGD as an act of labeling, is generally observed to be used to describe people with suicidal ideations, validating the fact that there was a lack of awareness among them. Thus, an effort was made to incorporate scientific awareness in the brochure, around suicide [Tables 2 and 3]. The brochure prepared in the present contained a separate section explaining the myths and facts about suicidal behavior, which can help clear out misconceptions. In another study, professionals compiled all the potential symptoms that are typical while explaining the signs and symptoms of suicidal ideation among college students.[25] Extreme behavioral tendencies, poor academic performance, and social disengagement were a few among them. However, efforts were made to include common

Table 1: Sample quotations by mental health experts

Themes	Subthemes	Participants (n=10)	Quotations
Theme 1: Understanding mental health and suicidality among young adults	Understanding mental health	4	"The youth of today are so used to internet that they tend to read about mental health in internet"
	Chief problems faced by young adults	6	"Academic pressure, peer pressure, interpersonal issues, and issues related to gender identity and sexual orientation are pretty common now"
	Coping mechanisms of young adults	10	"There is a wide spectrum of coping strategies ranging from healthy to unhealthy"
	Help-seeking tendency	4	"College students do not come to seek help themselves. They are usually brought here by parents or college authorities"
Theme 2: Essentials of suicide prevention among young adults	Risk factors for having suicidal ideations	10	"Everyone is at a risk of having suicidal ideations. No one is spared in today's world"
	Symptoms of suicidal ideations	4	"We do need to keep a check on the person at risk's social media activity. Some are non-verbal enough to explain their problems"
	Role of a peer	10	"Peers can play excellent role in making person comfortable and just listen to them"
Theme 3: Importance and components of resources related to suicide prevention	Importance of a resource material	8	"There is a necessity to empower the peers with correct resource materials"
	Components of resource material	5	"It would be good if concepts can be explained in form of stories"
	Design and layout of the resource material	3	"It would be good to avoid jargons and include the lingos college students are aware of"

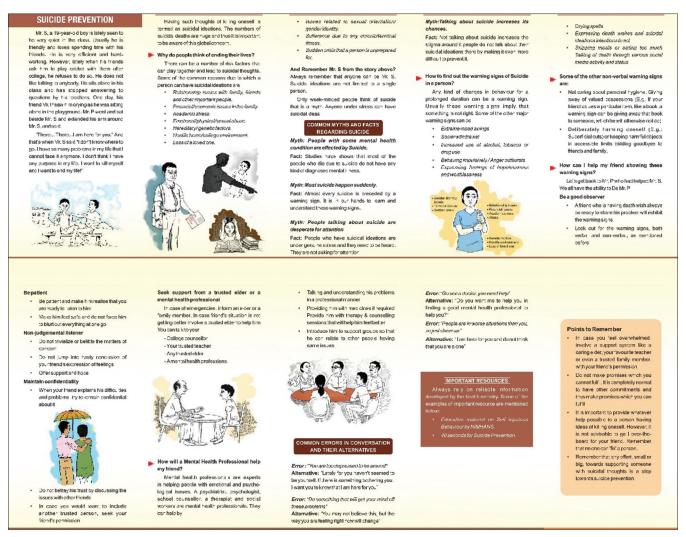


Figure 1: Suicide prevention brochure

nonverbal cues in the brochure that can flag a college student's suicidal thoughts. Special focus on nonverbal cues is crucial as people are not vocal all the time. [26] The value of non-judgmental listening was also focused in a study designed to help college students create a mental health first aid kit.[27,28] When talking to a young adult with suicidal thoughts, professionals explained in detail the appropriate peer communication techniques. As a result, a portion of the brochure highlighted the typical communication errors that people make while speaking to a person in distress and their correct alternatives. Teachers and mental health professionals both agreed that college students play a key role in avoiding suicides among their peers. This demonstrates the necessity to educate these students regarding how to help a peer with suicidal ideations. The brochure included the role of a peer and mentioned key things that a peer can do to assist young adult contemplating suicide. Experts, teachers, and students mentioned that no person immediately goes to a mental health professional the moment they undergo a crisis. College students turn up to their

friends for sharing their problems. A study mentions that young adults usually choose to talk to their peers during distress and peers are one of the most important populations who can help in suicide prevention. [29,30] According to teachers, there are no adequate resources on suicide prevention available for the public, let alone for young adults. Therefore, any kind of informational content for college students would be beneficial. When discussing the elements of the resource material to be created, mental health experts said that adopting a story style to educate the young adults would be beneficial and they would find it appealing. They suggested including other reading materials to ensure that young adults depend on reliable sources for information. In their explanations of the designs and layout, mental health experts, teachers, and students agreed that including infographics and illustrations makes the content interesting to read [Tables 1-3].

Considering all opinions and views of the stakeholders in the FGDs, an attempt was made to produce a fivefold

Table 2: Sample quotations by teachers

Themes	Subthemes	Participants (n=10)	Quotations
Theme 1: Understanding mental	Understanding mental health	8	"We are not quite sure if college students understand mental health"
health and suicidality among young adults	Chief problems faced by young adults	4	"Youngsters today do not know to accept failures and are very sensitive"
	Coping mechanisms of young adults	3	"Some students do not really know to share their problems thereby creating a wall around them which increases their sufferance"
	Help-seeking tendency	5	"For students, their friends are their first point of contact when it comes to seeing help"
Theme 2: Essentials of suicide prevention among young adults	Risk factors for having suicidal ideations	7	"Students who are weak-minded have a tendency to think of killing themselves"
	Symptoms of suicidal ideations	2	"Sometimes students do not want to show the real emotions. They can fake it. These are the times when it is difficult to find the signs"
	Role of a peer	4	"Peers can help bridge the gap between a student at risk and a responsible adult to provide early treatment"
Theme 3: Importance and components of resources related to	Importance of a resource material	6	"Not a lot of information related to suicide prevention is available for the general public; let alone college students. We do need more resource materials"
suicide prevention	Components of resource material	2	"It would be a good idea if a helping peer can be portrayed as a hero in the material"
	Design and layout of the resource material	3	"Inclusion of illustrations would make it attractive"

Table 3: Sample quotations by students

Themes	Subthemes	Participants (n=12)	Quotations
Theme 1:	Understanding mental health	8	"Good mental health means being resilient"
Understanding mental health and suicidality among young adults	Chief problems faced by young adults	6	"Peer comparison, low academic performance, family issues and parental pressure are the most common ones"
	Coping mechanisms of young adults	2	"Unhealthy coping techniques are temporary fixes and car become harmful in the long run"
	Help-seeking tendency	8	"We would not feel comfortable sharing our problems with a mental health expert. We usually seek help from our friends"
Theme 2: Essentials of suicide prevention among young adults	Risk factors for having suicidal ideations	6	"Faint hearted people unable to face the challenges give in to suicides"
	Symptoms of suicidal ideations	2	"People become quite underconfident and their body language changes"
	Role of a peer	6	"Instilling positivity and reassuring the person may help"
Theme 3: importance and components of resources related to suicide prevention	Importance of a resource material	4	"Suicide prevention is important and thus a resources material on same can help us have some understanding about how it works"
	Components of resource material	3	"We do not really know how we can help a person at risk, so would like to know that"
	Design and layout of the resource material	2	"Infographics will look good"

brochure on suicide prevention among college students where the views of the stakeholders were incorporated as much as possible. Once the self-reading brochure was prepared, it was given to six subject experts who were mental health professionals and had expertise in the management of suicide prevention, to confirm the face and content validity of the brochure. The development of the brochure was important as there was no culturally specific brochure available that catered to the needs of young adults in addressing the issue of youth suicides in India. After incorporating the necessary changes suggested by the experts, the content of the brochure was again given for inputs to the subject experts for

checking the appropriateness and sensitivity of the brochure's wordings and illustrations, cultural relevance, and easy comprehensibility for the targeted population. After making the necessary modifications, the brochure was finalized.

Implications

Research shows that adolescents and young adults are a vulnerable group resulting in increased suicides among this population. When mental health crisis remains unchecked and unattended, a person can be susceptible to suicidal ideations. Based on the findings from the present study and previous research, it is clear that young

adults usually reach out to their peers in case they feel anxious and stressed. The literature suggests that there is a lack of resources on suicide prevention for college students. The present study is an attempt to create a compact resource material, which can be helpful. The brochure highlights the intensity of the issue, the risk factors, the identification of the signs and symptoms, and how a peer can provide help to a person in need. It lays out fundamental methods of communicating with a person with suicidal ideations. It also explains the importance of bridging the gap between a person in need and a mental health professional so that early treatment can be facilitated. Special care was taken with respect to the illustrations used and the language of the brochure to make it simple and easy to comprehend. This creative brief can be used alone and can also be used coupled with various training sessions on suicide prevention among college students to increase their awareness.

Limitations and recommendations

Although the present study was conducted using a systematic methodology, it has its own limitations. In the first place, the study could incorporate a limited sample size and was specific to urban Bengaluru. Thus, a similar study incorporating a larger sample size, inclusive of other geographical locations, can be recommended. Another important recommendation would be to test the efficacy of the brochure to increase awareness of suicide prevention among college students. Once this is scientifically evaluated, the brochure can be used on a large scale. Creating other modalities of IEC materials can also be explored. For instance, audio/video (AV)/ movies can be an effective, yet engaging method to educate young adults. Social media can also be leveraged to diffuse these resources and reach out to a larger audience. Similar resources for parents and teachers of college students are also recommended.

Conclusion

The study was conducted to develop IEC material on suicide prevention for college students to address the knowledge gap in suicide prevention. A resource material having information on suicide prevention and what one can do, especially for college students, is the need of the hour. The brochure was developed based on scientific findings, attempting to empower young adults with proper knowledge on suicide prevention in an Indian context to add to the existing educational materials on suicide prevention.

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Conflicts of interest

The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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