

Evaluation of knowledge and competency among nurses after a brief suicide prevention educational program: A pilot study

Vijay K. Saini, Pratibha Gehlawat, Tanu Gupta

Department of Psychiatry, All India Institute of Medical Sciences- Jodhpur, Rajasthan, India

ABSTRACT

Background: Suicide is major public health issue worldwide. The educational interventions in enhancing the knowledge, modifying the attitudes, and raising the competence levels of healthcare professionals to prevent suicides have shown positive results. However, these education programs are under-evaluated, especially in India. **Aim:** The aim was to evaluate the effect on suicide prevention and management-related knowledge among nursing staff, attitudes, and competence for suicidal patients and their family members. **Methods:** A brief suicide educational intervention training program was prepared for the study participants. The outcomes of this study were evaluated through a single group pre-test-post-test questionnaire. **Result:** The mean age of the participants was 28.74 ± 5.73 years. Participants reported significant improvement in their attitude and knowledge about suicide after attending the training program. **Conclusion:** Empowering primary health care staff including nurses to identify, assess, manage, and refer the suicidal person should be considered as an important step in suicide prevention.

Keywords: Competency, educational program, knowledge, nurses, suicide prevention

Introduction

Suicide is a serious global public health problem. It results from a complex interaction of biological, genetic, psychological, social, cultural, and environmental factors. The psychological, social, and financial impact of suicide on the family and community is immeasurable. There are approximately 800,000 suicides a year worldwide, and it is estimated that at least six people are directly affected by each suicide death.^[1] However, most suicides can be prevented. Current research emphasizes that the prevention of suicide involves a series of activities, ranging from provision of better upbringing of children, timely assessment

of mental disorders and their effective treatment, to the control of environmental risk factors. Appropriate dissemination of information and awareness-raising are also considered as essential elements in the success of suicide prevention.

Prevention methods are considered as an approach to decrease suicidal ideation, suicide attempts, and completed suicide. The prevention strategies for suicide mainly include reducing risk factors and proper management of at-risk persons. However, skill-building and awareness-raising activities related to suicide prevention among the general population, primary care physicians, and the paramedical staff can be helpful in preventing many lives due to suicide.

Mostly suicide prevention strategies include reducing risk factors, or seeking out people at risk for proper management.^[2] The seeking out strategies include general education campaigns,

Address for correspondence: Dr. Pratibha Gehlawat,
Department of Psychiatry, All India Institute of Medical Sciences,
Jodhpur - 342005 Rajasthan, India.
E-mail: drpratibhag2009@gmail.com

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screening programs for primary care providers, and gatekeeper training.^[2,3] The Gatekeeper training program has emerged as a promising suicide prevention initiative and has received support worldwide.^[4]

Both psychiatric as well as general hospitals (including primary care centres) are responsible for preventing suicide. The patients coming to the hospitals for any type of treatment are at higher risk as these generally include people in a state of heightened physical or emotional distress. The health care professionals other than the mental health professionals, lack adequate skills and training to deal with suicidal behaviors by the patients. Therefore, most of the health care professionals suffer from traumatic loss and grief when their patients commit suicide because suicide is considered an unnatural event that is avoidable and preventable. They also experience a sense of failure after a patient's suicide. They often think that they should be more aware of signs of suicide and provided closer supervision.^[5,6]

Nursing staff play a crucial role in suicide prevention. It is generally expected from the nurses to keep suicidal patients under close observation and to monitor the condition and progress of such patients. However, nurses may not have the appropriate knowledge, skills, or attitude toward suicide prevention.^[7] The educational interventions in enhancing the knowledge, modifying the attitudes, and raising the competence levels of healthcare professionals to prevent suicides have shown significant short-term effectiveness with positive results.^[8-10] Still, these education programmes are under-evaluated, especially in India.

In the present study, a brief education programme on suicide prevention for nurses working in a tertiary care general hospital was conducted. The aim was to evaluate the effect on suicide prevention and management-related knowledge among nursing staff, attitudes, and competence for suicidal patients and their family members.

Method

A brief suicide educational intervention training program was prepared for the study participants. The expert panel team developed the education programme with the following objectives:

- I. To increase nurses' knowledge of suicide prevention
- II. To promote a positive attitude by nurses in caring for patients at risk of suicide and their family members and
- III. To enhance the competence of the nurses in identifying and referring patients to prevent suicide.

This brief educational intervention programme was prepared and conducted by the department of Psychiatry, All India Institute of Medical Sciences, Jodhpur. A sample of convenience of registered nursing staff from different medical and surgical units in the institute was taken. A total of 54 nurses were recruited according to availability and release from work to attend the

educational programme. Prior to the training, participants were asked to fill in the demographic details and pretest questionnaire developed by the authors. Pretest questionnaire comprised a total of 20 questions with the intent to assess the participant's attitude and knowledge about suicide prevention, various myths of suicide, risk factors of suicide, early warning signs, and pathway to referral and management. It also included a question about their level of confidence/competence for the identification of suicide and referral for further management.

Intervention

The content of the programme was validated by an expert panel of professionals including psychiatrists, psychologist, general nurses, and mental health nurses.

The content included:

- I. Facts on myths related to suicide
- II. Suicide risk and protective factors
- III. Assessment of suicide risk/making a safety plan
- IV. Suicide prevention in the workplace as well as in general/psychiatric hospitals
- V. Sources of support and referral for patients and their families.

The two-hour training program consisted of distribution of resource material and five interactive sessions (approximately 15 – 20 min each). The initial session provided an overview on understanding suicide, the epidemiology with latest statistics, general warning signs, myths, and misconceptions about suicide and suicide prevention. The later sessions were focused on improving the skills of the participants which included responding to potential suicidal situations and different strategies to prevent distress and further suicide. Clinical case scenarios were discussed throughout to make the sessions more interactive. Referral information was provided for specific type of referrals (e.g., students, co-workers, friends/family). Information regarding local resources and phone number were provided. The final element of the program included period of discussion with the instructors.

The outcomes of this study were evaluated through a single group pre-test–post-test questionnaire. The results were analyzed using descriptive statistics mean, standard deviation, and frequency. Pre-test post-test scores were compared using paired *t*-test.

Ethical clearance was taken from the Institutional ethic committee to waiver for individual written informed consent as data was be drawn from the pre-post test results as the outcome measure of the educational program related to suicide prevention awareness activities. AIIMS/IEC/2020-21/2069 dated on 30/05/2020 to waiver for individual written informed consent as data was be drawn from the pre-post test results as the outcome measure of the educational program related to suicide prevention awareness activities.

Table 1: Pre-test post-test scores comparing various domains of suicide prevention as assessed by the questionnaire

Variable	Mean (baseline)	Mean (Post test)	t	Significance
Attitude & Knowledge	3.98	5.20	-4.82	0.00*
Myths	2.26	3.56	-5.50	0.00*
Risk factors	1.46	1.76	-2.61	0.01*
Initial management/referral	3.43	5.00	-1.85	0.07
Confidence/competence to identify and referred	1.48	1.77	-2.60	0.01*

*Significant <0.05

Result

A total of 54 participants attended the training program. The mean age of the participants was 28.74 ± 5.73 years. Majority of them were males.

As depicted in Table 1, we found significant difference between the various domains of suicide prevention as assessed by the questionnaire. Participants reported significant improvement in their attitude and knowledge about suicide after attending the training program. Their myths were also clarified during the session. They could better understand the risk factors and initial management of suicidal patients after attending the training program. They also found themselves confident and more competent in identifying the person with suicidal ideation and generate an appropriate referral.

Discussion

The present study evaluated a brief educational suicide intervention program for the nursing staff. The study revealed that the program significantly improved attitude and knowledge about suicide among the nursing staff. The nursing staff were able to better understand the risk factors and initial management of suicidal patients than earlier. It also made the trainees more confident and competent for identifying the person with suicidal ideation and generate an appropriate referral. This training program was developed and delivered by the team of trained mental health professionals consisted of psychiatrists, clinical psychologists, and mental health nurses, which made it more knowledgeable and informative for the participants. The program used interactive session as a method of conduction that further enhanced the interest of the trainees.

It is well-known that nurses are in utmost important position for suicide prevention as they have a long and close contact with the patients. Their rapport with the patients as well as caregivers enables them to obtain support from family, friends, and organizations for the suicidal patients. They have an important role in offering continuity of care for the patients.^[11-13] However, previous studies have indicated that most of the nurses lack specific knowledge and confidence needed to deal with the suicidal patients to prevent further suicide.^[12] Literature supports the importance and effectiveness of targeting nurses, medical residents, and other primary health care staff for suicide prevention strategies.^[12,14-17] Thus, our program considered nursing staff as important targets for the educational training related to suicide prevention.

An 8-h training program for non-psychiatrically trained staff in the United Kingdom, improved skills of suicide risk assessment and management.^[17] An 18-h education program, and a 6-h program also showed positive changes in attitude, awareness, and competency of the nurses related to suicide prevention.^[8,14] The gatekeeper training for nurses included 6 to 8 hours of online training, also showed positive impact on knowledge and attitude about suicide.^[12] In a suicide prevention nursing competency program of 2 h twice weekly for 3 weeks, a significant difference was found in attitude, knowledge, and behavior of the nurses in pre and post-analysis.^[18] A multicentric study conducting 16 hours long suicide prevention interventional training program for two days revealed that there were improved attitudes, self-efficacy, and skills for suicide prevention among medical personnel including nurses. The training was particularly effective for individuals with no previous experience of suicide prevention training or of working with suicidal patients.^[19] A study conducted in India also concluded that there was a significant change in attitude and knowledge after structured teaching program on suicide prevention.^[20] There was marked increase in the overall knowledge and skills of the nurses after receiving an educational program about control of suicidal Ideation on nursing staff. However, the program was of 15 weeks containing 4 sessions per week.^[21]

Thus, it may be considered that most of the suicide prevention intervention and education programs consumed more time in terms of training time, as long as 18 – 20 h. Our program had a merit of a shorter time duration of only two hours compared to previous suicide prevention education programs. A similar study among nursing students indicated the effectiveness of a 90-min gatekeeper-training program for suicide prevention entitled Question-Persuade-Refer.^[17] Furthermore, a randomized controlled study also revealed the effectiveness of a 90-min gatekeeper suicide-awareness program in Taiwan.^[17] Thus, it has been emphasized that such a brief duration of programs are often important and useful for the busy medical as well as paramedical professionals. The shorter programs are usually easy to conduct in terms of man-power as well as resources. The attendance as well as the attention of the participants specifically improves in the shorter educational programs. Hence, brief educational intervention programs can be considered very useful at the primary health care level, especially in a low resourceful countries.

The long-term effects of this brief suicide prevention program remains undetermined. Repetition of education training along with practical skill building, may be required as proposed in earlier

studies.^[9,22,23] It has been postulated that effects can last longer if participants use new skills more regularly.^[24,25] Hence, it may be considered that repeated participation in a brief educational intervention program along with clinical experiences are helpful in achieving long-lasting positive results in suicide prevention strategies. However, considering the lack of studies regarding suicide prevention education programs from India, the present study holds significance to motivate the future researchers for conducting more of such studies.

There are several limitations. The sample size was small. There is a selection bias as all the participants were recruited voluntarily and also the positive effect of the program may be attributable to their own motivation. The study group was single-arm and no control group was taken. Hence, caution is required in generalizing the findings. There is a lack of long-term follow-up data and therefore the long-term efficacy cannot be determined. Thus, larger and long-term follow-up controlled studies are required to know the effectiveness of the training program more precisely.

Conclusion

Although, the primary health care staff including the nurses comprise the first level of care with the patients, they generally lack adequate skills to deal with suicidal patients. Therefore, it is concluded that in low and middle-income countries like India, empowering primary health care systems including primary care physicians and nurses to identify, assess, manage, and refer the suicidal person should be considered as an important step in suicide prevention. The study would be helpful toward developing more effective suicide prevention educational and intervention programs amongst all primary health care professionals. It is also highlighted that brief educational programs related to suicide prevention, in the busy clinical settings, can also act as an initial bridge-stone to build awareness about the risk factors, warning signs, myths, assessment, and initial safety plan for the suicidal patients. This can further enhance the approach towards suicide prevention in the primary care settings.

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Conflicts of interest

There are no conflicts of interest.

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