Medical Education

Breaking bad news: Awareness and practice of the SPIKES protocol among general surgery residents at a tertiary care institute in northern India

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ABSTRACT

Background. In general surgery, a clinician is commonly required to break bad news. However, training in communication is not a part of the formal curriculum either in medical school or in surgical residency and there is a paucity of data on awareness of the SPIKES (Setting up the interview, Perception, Invitation, Knowledge sharing, Emotion, Strategy and Summary) protocol among practising surgeons and residents in India.

Methods. We did a cross-sectional study in the Department of General Surgery at our institution. Junior residents were invited to take part in a one-on-one interview. Descriptive statistics were used to describe the findings of the study. Comparison for categorical data was done using Fisher exact test or chi-square test (whichever was applicable).

Results. A total of 82 residents with mean (SD) age of 27 (2.5) years (range 23–37 years) participated in the study. Only 31 (37.8%) had ever received training for breaking bad news, though 80 (97.6%) had broken bad news at least once. Twenty-one (26.3%) participants had a bad experience while breaking bad news. Seventy-seven (93.9%) participants felt the need for training in breaking bad news and 76 of them were willing to attend the same. Although the complete SPIKES protocol was followed only by 25 (31.3%) residents, 46 (56.1%) felt that it was practically possible to follow the SPIKES protocol.

Conclusion. Resident doctors in general surgery face situations of breaking bad news and adherence to the SPIKES protocol is poor. Formal training at every level may enhance their communication skills and enable better healthcare delivery.

Natl Med J India 2023;36:320–2

INTRODUCTION

Any news that can drastically alter a patient's view of his or her future is defined as 'Bad news'.[1] 'Breaking bad news' to the patient or the family can be devastating not only to them but also to the clinician breaking it.[2] Situations that demand a clinician 'break bad news' are commonly seen in obstetrics, paediatrics, acute trauma and emergency and cancer care,[2] and it is imperative that resident doctors are well versed in dealing with these situations.

Fear of (i) being blamed; (ii) the unknown and untaught; (iii) unleashing a reaction; (iv) expressing emotions; (v) not knowing all the answers; and (vi) personal fear of illness and death are some of the reasons that have been cited to increase the anxiety of the resident surgeon who is burdened with the task of breaking bad news and make the situation unpleasant and uncomfortable for himself/herself.[1] Most of these fears can be overcome by training in communication skills and breaking bad news. The ACGME (Accreditation Council of Graduate Medical Education) of the USA considers interpersonal and communication skills one of the core areas of competency for a medical graduate.[3] However, despite an initiative taken by the erstwhile Medical Council of India to include communication training for medical students (through attitude and communication module), it has yet to be widely implemented in medical colleges across India, and most graduates end up learning communication skills by observing their mentors who may or may not be ideal role models.[4]

To assist clinicians in breaking bad news, many protocols, some of which can be identified by acronyms such as SPIKES, ABCDE, SCOPE and BREAKS have been described.[2,5] Of all the protocols described to break bad news, SPIKES is the most popular and most commonly recommended.[6] However, neither SPIKES nor any other protocol has been studied extensively in India and little data are available on awareness of the SPIKES protocol among doctors in India, especially trainee surgeons.

Hence, we did this study to assess the awareness and practice of the SPIKES protocol among general surgery residents at our institute.

METHODS

We did this cross-sectional study in the Department of General Surgery at our institute between 15 and 30 June 2021. Junior residents (pursuing Master of Surgery in General Surgery) who had at least 6 months of general surgery training and at least 1 month of emergency posting were invited. Any resident with complaint(s) against them for inappropriate behaviour towards patients were excluded.

Residents were then explained the nature of the study, its aims and objectives and were assured that their identities would not be revealed. They were asked to sign the informed consent

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[**To cite:** Jain V, Ravi A, Thakur V, Mishra A, Dhamor D, Khare S. Breaking bad news: Awareness and practice of SPIKES protocol among general surgery residents at a tertiary care institute in northern India. *Natl Med J India* 2023;**36:**320–2. DOI: 10.25259/NMJI_950_2022]

form and were then administered the questionnaire. (The questionnaire was adapted from the study by Dafallah *et al*. and slightly modified for our setting). It was in English since the participants were all residents and had 20 questions on demographic profile of the participants, their experience in the Department of General Surgery and in emergency and knowledge, attitude, and practices [KAP] pertaining to breaking bad news and the SPIKES protocol.)[7] A one-on-one interview was conducted considering the sensitivity and open-ended nature of some questions. Most questions were in the yes/no format.

Medical school training institutes of the participants were ranked as per the national institute ranking framework (NIRF) rankings for the year 2021, available on the NIRF website.[8]

The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines for cross-sectional studies were followed.[9]

Descriptive statistics were used to describe the findings of the study. Comparison for categorical data was done using Fisher exact test or chi-square test (whichever was applicable).

RESULTS

The mean (SD) age of the 82 residents who were included was 27 (2.5) years (range 23–37 years). Sixty-five (79.3%) of the residents were men and 17 (20.7%) were women. Twenty-two (26.2%) had done their medical school training from institutes that featured in the top 20 institutes in India according to the NIRF, 53 (64.6%) had done their medical school training from other institutes in India and 7 (8.5%) had done their medical school training from outside India. The median duration spent by the participants in emergency postings was 6 months (IQR 5; range 3.5–24 months) and 52 (63.4%) had spent more than 6 months in emergency postings.

The details about KAP of breaking bad news and the SPIKES protocol are given in Tables I and II.

The reasons most cited for wanting to break bad news to the family included that they could better understand the psychology of the patient and that they would convey bad news better to the patient. Seventy-seven (93.9%) residents felt the need to be trained for breaking bad news, and 76 of them were willing to attend training for the same. The reasons given for not adhering to the SPIKES protocol included lack of proper space, insufficient time due to heavy workload in a government setup, and poor educational status of the patient/family. A number of residents who had done their MBBS from the top 20 institutes had received training for breaking bad news (p=0.003) and preferred breaking bad news to patients over relatives (p=0.048).

On analysis of factors affecting adherence to the complete SPIKES protocol, none of these factors—gender, college ranking in the top 20, formal training received for breaking bad news and ever received bad news as a patient, had any significant association.

TABLE I. Knowledge, attitude and practice regarding breaking bad news

Item	*n* (%)
Participants who had received training for breaking bad news	31 (37.8)
Participants who had ever broken bad news	80 (97.6)
Participants who had bad experience(s) while breaking bad news	21 (26.3)*
Participants who preferred breaking bad news to patients over relatives†	43 (52.4)*
Participants who felt training is required in breaking bad news	77 (93.9)*
Participants who were willing to attend training in breaking bad news	76 (98.7)‡
Participants who had ever received bad news as relatives of a patient	41 (50)

* percentage of participants who had broken bad news † only when the mental status of patients permitted breaking bad news to the patient ‡ Percentage of participants who felt training was required to break bad news

TABLE II. Knowledge, attitude and practice (KAP) regarding the SPIKES protocol

Item	Yes (%)	No (%)
S. Do you set up the interview for the patient to feel comfortable and keep privacy?	68 (85)	12 (15)
P. Do you assess the patient's perception about the condition?	74 (92.5)	6 (7.5)
I. Do you obtain the patient's invitation?	67 (83.75)	13 (16.25)
K. Do you give knowledge and information to the patient about his/her condition?	75 (93.75)	5 (6.25)
E. Do you assess the patient's emotions with empathetic responses?	74 (92.5)	6 (7.5)
S. Do you explain future strategy including treatment options and prognosis?	78 (97.5)	2 (2.5)
Complete SPIKES protocol followed	25 (31.25)	55 (68.75)
Is it practically possible to follow complete SPIKES while breaking bad news?*	46 (56.1)	29 (35.4)

* 7 (8.5%) residents did not have an answer to this question

DISCUSSION

A doctor is often faced with the difficult task of delivering disturbing news to patients, and his/her communication skills are put to test. We checked the opinions of surgical resident doctors at a tertiary care hospital in northern India regarding breaking bad news and awareness and adherence to the SPIKES protocol.

While bad experience during breaking bad news was 26% in our study, it was reported to be 44%–45% in studies conducted in Sudan, Brazil and Nigeria.[7,10,11] One reason is the lack of empathy of the physician delivering the news. If doctors are trained about how to deal with such situations and empathize with patients and/or family members while delivering the news, the probability of having a bad experience is likely to decrease.

A study from China[12] reported that the three most common reasons residents prefer to deliver bad news to family rather than patients were fear of patients lacking the resilience to cope with bad news, fear of direct or legal conflict with the family, and a moral conflict between the patient's right to know and the family's interest in doing what is best for the patient. Our study also corroborates the preference of doctors to deliver bad news to family members (53%) rather than the patient.

The 6-step SPIKES protocol was developed for clinicians to fulfil the four important aims of an interview involving breaking bad news: Gathering information from the patient, giving medical information about his condition, supporting and understanding his emotion, and deriving his cooperation for further plan of management.[13]

Studies conducted in different parts of the world showed adherence to the SPIKES protocol of around 80% in Korea,[10] 84% in Brazil[11] and a range of 35%–79% in Sudan.[7] Our study showed only 31% adherence to the SPIKES protocol. In our

study, it can be seen that even receiving formal training for breaking bad news does not ensure adherence to the SPIKES protocol. One reason for this could be the lack of proper infrastructure as stated by many residents. It could also be due to a lack of re-enforcement from superiors (senior residents and consultants) about the importance of adherence to the SPIKES protocol. These two factors can be dealt with by ensuring a separate room in the ward where patient's/family member's privacy can be respected and where the doctor can deliver bad news more empathetically, and also ensure that seniors themselves comply with the SPIKES protocol and stress its importance to the trainee residents. This is easier said than done as most hospitals have a space crunch and there is a problem of overwork at every level.

Breaking bad news puts the doctor frequently in uncomfortable situations, and training for it might help them deal with the situation more aptly. In a study to check the effect of training in breaking bad news of obstetricians working in a high-risk setup frequently involved in delivering bad news, it was found that institutional formal training had a positive impact on the perceptions of the involved health professionals in the department.[14] The MD Anderson Cancer Center held two workshops for training participants about delivering bad news and handling difficult patients, and it was found that participants achieved positive results as they 'felt more competent' about better handling these situations.[15] In a communication skills training workshop for Chinese oncologists and caretakers about breaking bad news performed through group discussion and role-play in small groups, the physicians felt significantly better in talking about diagnosis, prognosis and death with the patient and family.[16] The majority (>90%) of participants felt the need to be trained in the subject, and almost all were willing to attend training for the same.

This study is not without limitations. The participants recall of implementing each step in clinical practice can be over/underestimated, thus leading to fallacies in results. Also, the study could have been more useful if it was an interdepartmental study, so that data could be collected from residents of different specialties and training programmes could be implemented in departments with the least awareness/adherence to the SPIKES protocol, following a wider application across the institute. However, owing to a paucity of studies regarding experiences of Indian doctors in breaking bad news, it has its merit and warrants training programmes and further studies for the betterment of communication skills of doctors.

Conclusions

Resident doctors in general surgery commonly face situations of breaking bad news and their adherence to the SPIKES protocol is poor. Formal training in breaking bad news may enhance their communication skills enabling better healthcare delivery.

REFERENCES

1 Buckman R. Breaking bad news: Why is it still so difficult? *Br Med J (Clin Res Ed)* 1984;**288:**1597–9.
2 Fallowfield L, Jenkins V. Communicating sad, bad, and difficult news in medicine. *Lancet* 2004;**363:**312–19.
3 Eno C, Correa R, Stewart NH, Lim J, Westerman ME, Holmboe ES, *et al.* ACGME Milestones Guidebook for Residents and Fellows, 2021. Available at *www.acgme.org/globalassets/PDFs/Milestones/MilestonesGuidebookforResidentsFellows.pdf* (accessed 26 Jun 2021).
4 Arneja I, Lal P. Communications skills training—A missing link in medical education curriculum. *MAMC J Med Sci* 2017;**3:**117–19.
5 Narayanan V, Bista B, Koshy C. 'BREAKS' protocol for breaking bad news. *Indian J Palliat Care* 2010;**16:**61–5.
6 Marschollek P, Bakowska K, Bakowski W, Marschollek K, Tarkowski R. Oncologists and breaking bad news—From the informed patients' point of view. The evaluation of the SPIKES protocol implementation. *J Cancer Educ* 2019; **34:**375–80.
7 Dafallah MA, Ragab EA, Salih MH, Osman WN, Mohammed RO, Osman M, *et al*. Breaking bad news: Awareness and practice among Sudanese doctors. *AIMS Public Health* 2020;**7:**758–68.
8 National Institutional Ranking Framework, Ministry of Education. India Rankings 2021: Medical. Available at *www.nirfindia.org/2021/MedicalRanking.html* (accessed on 31 Oct 2022).
9 von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP; STROBE initiative. Strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting observational studies. *BMJ* 2007;**335:**806–8.
10 Lee HR, Yi SY. Delivering bad news to a patient: A survey of residents and fellows on attitude and awareness. *Korean J Med Educ* 2013;**25:**317–25.
11 Ferreira da Silveira FJ, Botelho CC, Valadão CC. Breaking bad news: Doctors' skills in communicating with patients. *Sao Paulo Med J* 2017;**135:**323–31.
12 Hahne J, Liang T, Khoshnood K, Wang X, Li X. Breaking bad news about cancer in China: Concerns and conflicts faced by doctors deciding whether to inform patients. *Patient Educ Couns* 2020;**103:**286–91.
13 Baile WF, Buckman R, Lenzi R, Glober G, Beale EA, Kudelka AP. SPIKES—A six-step protocol for delivering bad news: Application to the patient with cancer. *Oncologist* 2000;**5:**302–11.
14 Oliveira FF, Benute GRG, Gibelli MAB, Nascimento NB, Barbosa TVA, Bolibio R, *et al.* Breaking bad news: A study on formal training in a high-risk obstetrics setting. *Palliat Med Rep* 2020;**1:**50–7.
15 Holland JC, Almanza J. Giving bad news. Is there a kinder, gentler way? *Cancer* 1999;**86:**738–40.
16 Wuensch A, Tang L, Goelz T, Zhang Y, Stubenrauch S, Song L, *et al*. Breaking bad news in China—the dilemma of patients' autonomy and traditional norms. A first communication skills training for Chinese oncologists and caretakers. *Psychooncology* 2013;**22:**1192–5.