

# Effects on Medical Students of Longitudinal Small-Group Learning about Breaking Bad News

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## ABSTRACT

**Introduction:** Delivering bad news is a difficult task for physicians, and medical schools do not always prepare future physicians for this inevitable task.

**Objective:** To examine training in breaking bad news, to improve medical students' competence and confidence in dealing with this important aspect of clinical practice.

**Methods:** An exploratory study using a qualitative approach was done at a Brazilian public university's medical school, which receives 30 medical students per semester. Two focus groups were conducted in 2018, with 15 students per group, before and after the training. The intervention consisted of a 6-month (4 h/wk) course about breaking bad news offered to 30 third-year medical students. The communication course included the perspectives of health care professionals, patients, and their families; the SPIKES protocol and the "ABCDE" mnemonic for delivering bad news; general guidelines; and role-playing/simulation strategies to improve students' skills and reduce their personal limitations.

**Results:** Results of the preintervention focus group demonstrated that only 30% of the students were aware of the importance of breaking bad news and of the existence of specific protocols to guide physicians in these situations. Findings from the postintervention focus group indicated that 90% of students understood the importance and began to apply protocols in their practice.

**Discussion:** Breaking bad news is a challenge for undergraduate medical students. The results of our qualitative study showed that students' perceptions about their capability in delivering bad news increased significantly after regular and focused training. The knowledge, skills, and attitudes acquired strengthened the students' self-reported ability to deal with situations requiring breaking bad news.

**Conclusion:** The activities offered helped students develop communication skills. They made connections between their formal training (communication and cognitive skills) and actual clinical practice in a community-based rotation. The knowledge and skills acquired gave them tools needed to deliver bad news in their future clinical practice.

## INTRODUCTION

Breaking bad news about unfavorable health information is one of the most challenging tasks for practitioners, and medical schools do not always offer regular, satisfactory, and good-quality training for undergraduates in this area.<sup>1,2</sup> A physician's attitude and communication skills play a crucial role in how patients receive and deal with this topic.<sup>1-3</sup> It is critical that medical students have formal training in communication skills and, specifically,

training in breaking bad news in their undergraduate learning experience.

There is a gap in medical education in teaching nonverbal expression of emotions, although much of human communication is nonverbal. Nonverbal behavior may be the most important clinical insight. The cost of missing nonverbal patient cues has important implications for patient satisfaction, health outcomes, and malpractice claims.<sup>4</sup> Nonverbal communication skills are not typically taught in courses where clinicians learn to obtain medical histories, explain medical interventions, or give bad news.<sup>4</sup> Delivery of feedback to students poses several challenges in the clinical setting, although observable and straightforward behaviors, such as elements of the physical examination or interpretation of laboratory results, can inform with reasonable precision more complex "noncognitive" domains that are viewed as more subjective, such as interpersonal communication.<sup>5,6</sup>

These challenges limit the effectiveness of feedback and may even result in no devolution at all. Finally, although students prefer to receive general praise from their teachers, actual learning results from receiving more specific feedback.<sup>7</sup> This feedback is important to ensure effective communication with family members also.<sup>8</sup>

The purpose of this study was to examine the role of training in breaking bad news, to improve medical competence and confidence in dealing with this important aspect of medical practice.

## METHODS

An exploratory study was conducted using qualitative methods in a prospective experimental comparison of the effect of training medical students in breaking bad news. We selected third-year medical students undergoing a formative clinical skills training.

### Setting, Participants, and Intervention

Participants included 30 third-year medical students at a Midwestern Brazilian public medical school in the 2018 academic year (second semester). This medical school receives 30 medical students per semester. The intervention consisted of a 6-month elective course that was created in 2016. The students participated in activities (4 h/wk) that included discussion about different perspectives on breaking bad news for health professionals, patients, and families; practice with the SPIKES protocol<sup>9</sup>; the

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“ABCDE” mnemonic by VandeKieft<sup>10</sup>; general guidelines; role-playing strategy and simulations to train how to deal with many bad-news situations; and students’ personal skills and personal limitations.<sup>1,2</sup> Some adaptations were made using local language dialects to make the message clear to patients and their relatives.

The SPIKES protocol describes 6 steps to communicate bad news. The first step is the “setting up,” that is, to prepare the physician and the workplace. The second step checks whether the patient is aware of his/her condition (“perception”). “Invitation” is the third step; it seeks to understand how much the patient wants to know about his/her illness. The fourth step (“knowledge”) is the transmission of the necessary information and the provision of tips on how to transmit them. The fifth step, “Emotions,” is dedicated to responding empathetically to the patient’s reaction. The 6th step aims to decrease the patient’s anxiety when the physician reveals the treatment plan and what may happen (“strategy and summary”).<sup>9</sup>

The ABCDE mnemonic is a tool to provide hope to patients during the process of receiving bad news. A indicates *advance* preparation; the physician should arrange adequate time and privacy and try to emotionally prepare for the encounter. B is for *building* a therapeutic relationship: Identifying patient preferences regarding the disclosure of bad news. C represents *communicating* well: Identifying the patient’s knowledge and understanding of the situation, avoiding medical jargon, respecting the pain of the patient, and answering questions. D is *dealing* with patient and family reactions: Understanding and evaluating emotional reactions and empathizing with the patient. E involves *encouraging/validating* emotions: Offering realistic procedures that are based on the patient’s goals and meeting his/her needs.<sup>10</sup>

All students received the same classroom-based training in breaking bad news, focusing on empathy, communication skills,

and reflections on professional development. Students worked together in the same small groups during the course. Strategies using a realistic simulation scenario were used, followed by reserved time for debriefing. The role-playing exercises were recorded and reviewed with the students, who were offered an additional opportunity for learning on the basis of their performance. This conversation during the course focused on what went well and how the course could be improved in the future.

### Focus Groups and Feedback

To test the intervention, we performed an exploratory study using a qualitative approach. Two focus groups were conducted before the training on breaking bad news, and 2 focus groups were conducted after the intervention was completed, with 15 medical students per group (Figure 1). The focus groups were conducted to evaluate the students’ perceptions about the importance of breaking bad news, methods used, and difficulties faced. In addition, after the intervention, questionnaires were distributed to the students to assess the importance of training about breaking bad news and to learn their favorite strategy.

The script used during the focus groups was composed of the following guiding questions:

- What did you think of the topic “breaking bad news” before taking the course? Did you give importance to breaking bad news before taking the classes?
- Before the course, did you have contact with, or did any practice address, about the communication of bad news in another course? Did you think you could deal with bad news? And after the course? What has changed?
- Have you had any real-life situations of communicating bad news while you were taking the course?
- What topic/method did you like most in the classroom? Explain why. How do you think you will be able to use this training in your practice?
- What difficulties did you have during role playing? After this intervention, did you discover yourself to have some communication skills to deal with difficult situations to be communicated?
- What will you take with you from this course to use in your clinical practice?

The aim of this script was to help us identify the influence of the training on student competence.

### Data Analysis

The qualitative approach requires the use of a systematic method, so we used the content analysis technique<sup>11</sup> to describe and interpret the content of the instruments used for data collection. For the qualitative analysis, we used thematic content analysis. We used Atlas.ti software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany), which allows the generation and structuring of the qualitative data and the analysis and presentation of the results, making possible the construction of semantic networks. After following the steps for the content analysis,<sup>11</sup> we used descriptive statistics to analyze the responses of the postintervention questionnaires.

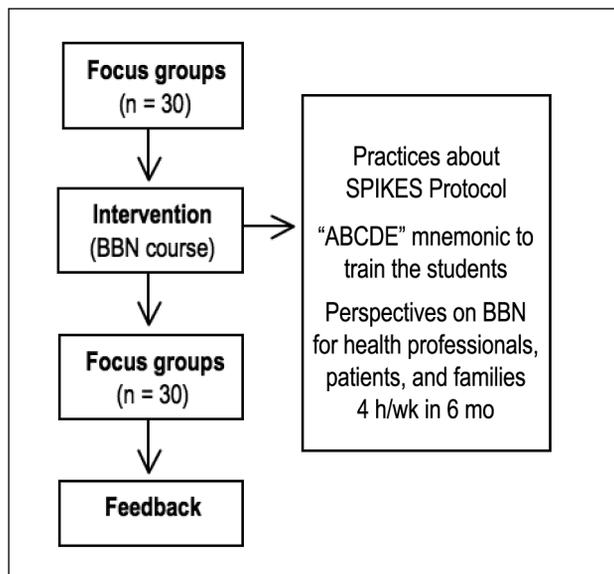


Figure 1. Eligible study: Pre and post focus group to evaluate the proposed intervention.

BBN = breaking bad news.

### Ethics Statement

The data collection was completely anonymous, and participation was voluntary. All participants were considered to have full control over the extent to which they wanted to participate and to disclose personal data. All volunteer participants signed the informed consent form. The research project was approved by the institution's research ethics committee (CAAE 48714015.5.0000.5083).

### RESULTS

Findings of the preintervention focus group showed that only 30% of students (9/30) were aware of the importance of breaking bad news in medicine and the existence of specific protocols to guide it. The results of the postintervention focus group indicated that 90% of student participants (27/30) recognized the relevance of breaking bad news and reported they were able to apply the protocols in their clinical training situations.

Most of the students (90%, 27/30) stated they had never been trained in breaking bad news and thought this was an important gap in the medical curriculum. The most appreciated teaching strategies were role playing (80%, 24/30) and the SPIKES protocol (70%, 21/30).

Fifty percent ( $n = 15$ ) reported they faced a real-life situation during their integrative practices with real patients in the same semester, in which they could use what they had learned in the breaking bad news training and that it made a difference. The videotaping analysis of their own performance during class-based role playing reportedly helped 76% ( $n = 23$ ) of the students to realize they need improvement, such as body posture, gestures, and verbal and nonverbal language. Eighty percent ( $n = 24$ ) reported realizing how important it is to be transparent with the patient (truth telling) and to develop empathy to ensure good professional performance.

On the basis of actual medical histories brought to class by several students, it was possible to conclude that these course activities enabled them to make connections between their formal training (communication, relational, and cognitive skills) and their clinical practice in the community-based rotation (Table 1).

### DISCUSSION

Breaking bad news is a challenge for undergraduate medical students. The results of our qualitative study showed that students' perceptions about their capability in delivering bad news increased significantly after regular and focused training using role playing and feedback on the basis of recorded encounters. The knowledge, skills, and attitudes acquired strengthened the students' self-reported ability to deal with situations requiring breaking bad news, which may translate into improvements in this area in their future clinical practice. Learning general communication skills can enable physicians to break bad news in a manner that is less uncomfortable for them and more satisfying for patients and their families.<sup>11</sup>

Educational innovations to improve breaking bad news must not only teach knowledge and skills but also should foster an attitude of caring and compassion. Students engaged in such efforts must be willing to reflect on their own communication

**Table 1. Examples of medical students' perceptions after training intervention on breaking bad news**

Criteria	Postintervention perception
Skills and competencies	"I realized that I'm less shy than I thought."
Emotional process	"I did not have [a] notion of the greatness of the emotional problem involved in the process."
Importance of empathy	"It is necessary to put empathy into practice."

style and their own emotional reactions to such encounters.<sup>12</sup> The activities completed during this course in a Brazilian public university helped to develop the students' communication skills. It allowed the students to reach the profile of graduates required by Brazil's 2001 National Curriculum Guidelines for Medical School.<sup>13</sup> In addition, students stated that the knowledge they acquired strengthened their ability to break bad news in their future medical practice.

In medicine, communication skills are primarily acquired by observation and by modeling, usually without formal feedback or formal assessment. According to VandeKieft,<sup>10</sup> physicians must individualize their manner of breaking bad news on the basis of the patient's desires and needs. The integration of communication skills into medical school programs has been attempted in many forms.<sup>14</sup> The use of single lectures, series lectures, workshops, and simulations has been demonstrated in several studies.<sup>15</sup>

According to Batistatou et al,<sup>16</sup> students should be trained to be interested about the patient as a whole, rather than about the symptom or symptoms alone—to be interested in people rather than in diseases. Medical humanities provide insight into human conditions, illness and suffering, and perception of oneself, as well as into professionalism and responsibilities to self, colleagues, and patients. Communication is multidimensional, and it is essential in establishing the physician-patient relationship, empathy, and nonverbal interaction. Breaking bad news involves not only the patient and the physician but also the entire care team, the patient's family, and the community.

Empathy skills may be the clinician's most powerful tool. A successful medical interview involves successful collaboration between the physician and the patient. The first step is to understand the feelings, attitudes, and experiences of the patient. Studies point to the fact that emotionally engaged physicians communicate more effectively with patients, thereby decreasing patients' anxiety and bringing better outcomes.<sup>17</sup>

An important strategy for improving the quality of end-of-life discussions is to improve end-of-life communication skills among health care practitioners. This educational need in the curriculum of medical courses has already been verified.<sup>18</sup> Medical graduates currently are entering practice ill prepared to discuss the important end-of-life issues with patients and families.<sup>18</sup> Because the importance of physician-patient communication has been widely recognized, a considerable number of instruments that measure physicians' communication skills have been developed, although there is no overall consensus on the operational definition of physician-patient communication.<sup>19</sup>

Our course focused on breaking bad news by health professionals, to the patient, and to the family; use of the SPIKES

protocol and the ABCDE mnemonic; general guidelines; and role-playing strategy and simulations. Many studies have shown the value of simulation and role playing for training medical students about breaking bad news in clinical practice.<sup>20</sup> The physician's attitude and communication skills play a crucial role in how patients receive bad news. It is essential for medical schools to include communication curricula that address breaking bad news, so that the students can transform theory into practice in their community-based training experiences.

## CONCLUSION

The activities during the intervention helped students to develop their communication skills, likely bringing greater qualifications to their clinical practice. On the basis of histories brought by the students, it was noticed they made connections between their formal training (communication, relational, and cognitive skills) and their community-based practice. The knowledge, skills, and attitudes acquired prepared them to better deal with situations requiring delivery of bad news, which participating students believe will help them in their future clinical practice. ❖

## Disclosure Statement

*The author(s) have no conflicts of interest to disclose.*

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