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Original article

Awareness and Skills of Libyan Physicians in Delivering Bad News to Patients at Tripoli University Hospital

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ABSTRACT

Breaking bad news (BBN) to patients is a highly sensitive challenge that, sooner or later, all physicians must face. It is one of the most difficult responsibilities in the practice of medicine. Physicians should learn good communication techniques to assist patients in overcoming negative news. Therefore, the study is presented to evaluate the awareness and skills of Libyan physicians in delivering bad news to their patients. A cross-sectional study was carried out at Tripoli University Hospital (TUH) from the first of April 2021 until the last of July 2022. In Libya, a structured questionnaire based on the 6-step SPIKES protocol for BBN was administered to 150 physicians working at the TUH to assess their awareness and training. About 46% of the physicians had good awareness of the components of the 6-step SPIKES protocol, while 53% implemented the protocol at the accepted level. There was statistical significance between awareness level, age, and gender. There was no significant relation among physicians with regards to their qualifications, physicians with PhD degrees, or registrar, and medical officers about awareness and practice scores. There is a weak positive correlation between the awareness group score and the training group score (r=0.20. p=0.015). Physicians' BBN awareness is at an accepted level, and their method of practice is accepted as well. BBN is a neglected topic in medical education and training, especially among physicians under the age of 31.

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INTRODUCTION

Bad news (BN) is defined as “any news that drastically and negatively alters the patient's view of her or his future” [1]. Others define it as “the information that causes cognitive, behavioral, and emotional deficits in the person receiving the news [2]. Breaking bad news (BBN) to patients and their relatives is a complex and frequently occurring clinical task. This important communication skill is required in almost all branches of medicine, including oncology, intensive care units, pediatrics, gynecology and obstetrics, orthopedics, ophthalmology and many other disciplines. Importantly, bad news, if not well delivered, may have an impact on the clinician, patients, and relatives. For instance, physicians may become emotionally disengaged from their patients, and this may have an impact on patients' or relatives' relationship with their doctors [3,4]. Therefore, almost all physicians and surgeons will have to deal with BBN multiple times in their professional lives. However, even in developed countries, almost half of the doctors at the consultant level reported having not received any formal training in the task of breaking bad news to patients [5].

Over the past few years, universities and other institutions have made great efforts to change the existing status. Several courses, associations, and publications can help physicians upgrade their abilities and knowledge in this challenging field [6]. Among these techniques is the SPIKES protocol [7], which recommends six steps for breaking bad news, with a special application for cancer patients [8]. The SPIKES protocol was evaluated for structuring and delivering bad news in the United States [9], Germany, and other countries [10]. It is used as a guide for this sensitive practice and for communication skills training in this context [11]. The first step is S or the setting up phase, which points to the preparation of the medical environment, which should preferably be a private, reserved, and pleasant site. The second step is P or perception; it is an opportunity to find what the patient knows about his or her illness through open questions. The third stage is I or invitation, which is an opportunity to analyze the patient's willingness rate to resolve their doubts about their disease. The fourth stage is K or knowledge, in which everything concerning the diagnosis must be revealed. The fifth stage is E or emotion, which is the time to express empathy, recognize the patient's emotions, and provide support. The last step is the S or phase of strategy and summary which is the time to propose treatment and prognosis of the disease, as well as sum up everything that has been said [12,13].
A major behavioral and practical difference is observable between physicians exposed to these concepts during medical school lectures and those who received it through educational interventions or during clinical practice [14]. There is still a deficit of data about this topic in Libya, therefore, the current study aims to assess physicians' awareness of breaking bad news and to evaluate their established practice.

METHODS

Study design and setting

A cross-sectional study was carried out at the Tripoli University Hospital from January 1st 2021 to July 31st 2022, included 150 Libyan doctors, ≥ 26 years old, male and female, working across eight different departments (i.e. medicine, surgery, pediatrics, pediatric surgery, urology, orthopedics, oncology, obstetrics and gynecology departments).
There was no significant relation among physicians with regards to their qualifications, physicians with PhD degrees, or registrar, and medical officers about awareness and practice scores. Medical officers, residence Registrars and Consultants working in the Tripoli University Hospital, and doctors who did not have direct contact with patients (eg. radiologists and pathologists), interns, and doctors who did not consent to participation were excluded from the study.
The sample size calculated from the sample calculator is presented as a public service of creative research systems (survey software system).[15] The confidence level was considered to be 95%. The accuracy of answers was usually at 50% level accuracy. The standard error was 5. The total study population was 1000 physicians. The calculated sample size was 278 participants but the response rate was (150, 54%) of doctors.

Sampling

The participants were selected using a simple random sampling technique according to inclusion and exclusion criteria. The participants were interviewed using a structured questionnaire taken according to the SPIKES protocol and consisting of three sections. The first section contained personal data including age, gender, clinical position and specialty. The second part was related to the practicing of Libyan doctors on the six items of the SPIKES protocol of breaking bad news. Each item was measured on a 3-point Likert scale (i.e. usually, sometimes and never). The third part was composed of 7 items and asked the doctors about their past experiences, opinions, and the need for a training program in breaking bad news.
A pilot study was conducted on 10 participants. The reliability (Cronbach's Alpha) for awareness and practice was calculated to be 0.711. Additionally, the overall awareness and practice scores of the 6-step SPIKES model were computed. The scores were divided into 3 levels: the poor level (< 60% of the possible points), the accepted level, (60% -80%), and the good level (> 80%). Questionnaires were distributed among the participants and collected during the same time interval after confirming that all questions were answered.

Statistical analysis

Data was analyzed using SPSS (IBM SPSS Statistics for Windows, Version 21.0). Frequencies and percentages were reported for categorical variables, and means with standard deviations (SDs) were reported for continuous variables. The Chi-square test was used for the categorical variables and a P-value of <0.05 was considered statistically significant. The correlation coefficient was used to find out whether there is a significant association or not between awareness and training scores.

RESULTS

A total of 150 participants were included with a mean age of 35.34±6.37 years, ranging from 26 to 55 years. The most frequent age range of participants was 31 to 40 years (92, 61.3%). The number of female doctors was 118 (78.7%), as shown in Figures (1, 2).

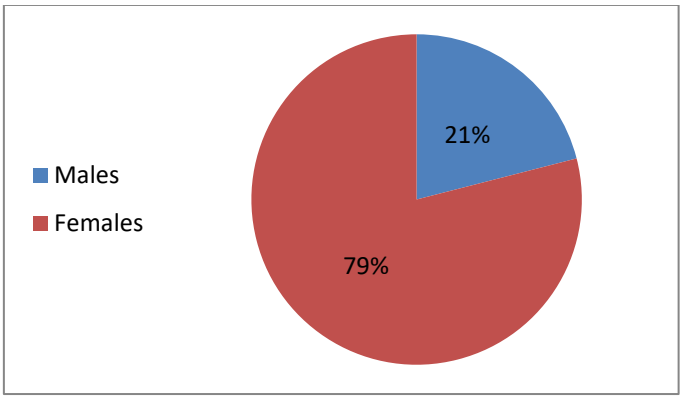

Figure 1. Gender wise distribution.

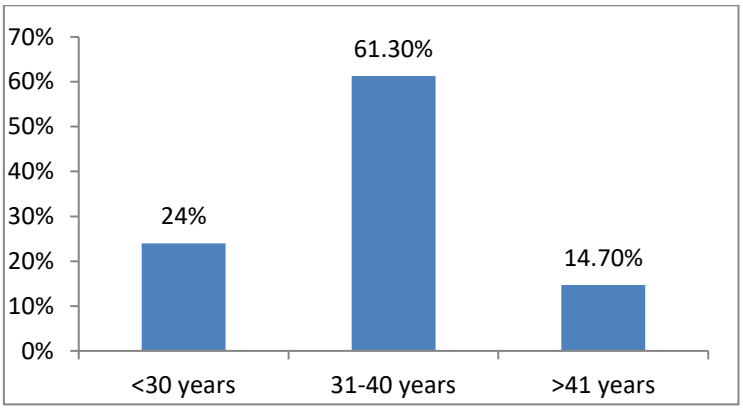

Figure 2. Age wise distribution

Regarding their clinical position and specialty, as seen in Table (1), the majority of participants 82 (54.7%) were medical officers, followed by 52 (34.7%) trainee registrars. As for specialty, medicine made up the largest group of participants 74 (49.3%), and oncologists came in second with 22 (14%).

Table 1. Clinical position and specialty distribution at TUH 2022

Character	Frequency	Percentage
Clinical position		
Consultants	16	10.7
Registrars	52	34.7
Medical officers	82	54.7
Total	150	100%
Specialty		
Medicine	74	49.3
General surgery	11	7.3
Obstetrics and Gynecology	8	5.3
Pediatric	14	9.3
Orthopedic	3	2
Urology	10	6.7
Family medicine	8	5.3

Oncology	22	14.7
Total	150	100.0

In terms of the different items of the SPIKES model, 53.3% of the physicians had an accepted score for awareness and 46% had a good awareness score. In addition, the majority of participants got an accepted training score of 49.3%, while 35.3% had a good training score as shown in Figures (3, 4).

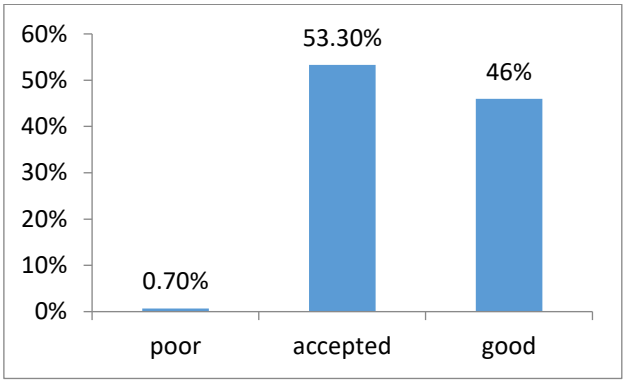

Figure 3. Awareness score distribution.

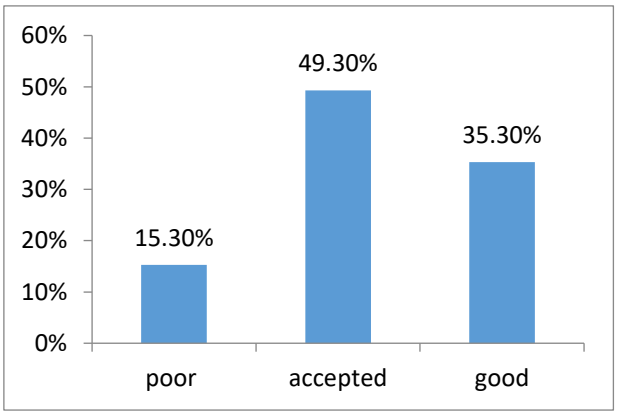

Figure 4. Training score distribution

From Table (2), the majority of physicians 137 (91.3%) agreed that training in breaking bad news is needed, and there are 134 (89.3%) that were willing to attend training. Regarding breaking bad news in the past, 118 (78.7%) participants have been involved in breaking bad news, and 108 (72%) prefer to talk with a family member when they break bad news, as in Table (2).

Table 2. Different questions (awareness, training and experience) about BBN at TUH 2022 (N=150).

Items	Yes (%)	No (%)
1. Have you ever received any education/training for breaking bad news?	75 (50%)	75 (50%)
2. Have you ever broken bad news to patients or patients' families?	118 (78.7%)	32 (21.3%)
3. Did you have any bad experiences due to improperly breaking bad news?	74 (49.3%)	76 (50.7%)
4. Do you prefer to talk with the patient when you break bad news?	89 (59.3%)	61 (40.7%)
5. Do you prefer to talk with a family member when you break bad news?	108 (72.0%)	42 (28.0%)
6. Do you believe that bad news should be delivered directly to the patient?	65 (43.3%)	85 (56.7%)
7. Do you feel training is needed for adequate skill development in breaking bad news	137 (91.3%)	13 (8.7%)
8. Are you willing to attend training regarding breaking bad news in the future?	134 (89.3%)	16 (10.7%)

Regarding adherence to SPIKES protocol by specialty, rank and training, the majority of participants 120 (80%) discuss the plan and strategy of prognosis and treatment options with the patient. 116 (77.3%) explore the patient's knowledge and give information about the patient's condition, at next around 103(68.7%) hand to the patient's emotion and emphatic response as in Table 3.

Table 3. Adherence to SPIKES protocol at TUH 2022 (N=150)

Items	Never (%)	Sometimes (%)	Usually (%)
1 S. Set up (plan) the interview for the patient to feel comfortable and keep privacy?	22(14.7%)	54(36%)	74 (49.3%)
2 P. Assess the patient's perception (what he already knows) about the condition?	5 (3.3%)	45 (30%)	100(66.7%)
3 I. Obtain the patient's invitation (ask him what they want to know)?	15 (10%)	62 (41.3%)	73 (48.7%)
4 K. Give knowledge and information to the patient about their condition?	5 (3.3%)	29 (19.3%)	116 (77.3%)
5 E. Assess the patient's emotions with emphatic responses?	6 (4%)	41 (27.3%)	103 (68.7%)
6 S. Explain future strategy including treatment options and prognosis?	9 (6%)	21 (14%)	120 (80%)

In this study, there was a statistically significant difference between male and female physicians in terms of awareness, and no statistically significant difference between them and training score (*p*-values 0.014 and 0.526, respectively). Furthermore, there was a statistically significant difference among age groups and awareness scores, which increases with increasing age groups. However, in the practice scores, there was no statistically significant difference (*p*-values 0.015 and 0.945, respectively).

At the same time, there were no statistically significant differences in terms of their clinical position and awareness score (*p*-value 0.153) or training score (*p*-value 0.547). Upon assessing the correlation between awareness and practice, there appears a weak positive correlation between the awareness score group and training group score (r=0.20. p=0.015), meaning as the awareness score increases, the training score also increases.

DISCUSSION

This study aimed to explore Libyan doctors' awareness and evaluate their practice concerning breaking bad news to patients and their relatives. One of the most difficult tasks for doctors, as well as in the field of medical education, is delivering terrible news to various types of patients. In terms of adherence to the different steps of the SPIKES model in the current study, most of the physicians showed an accepted level of awareness and practice. These findings are comparable to those of earlier studies [16,17], which found that even though doctors were aware of how important it is to tell patients terrible news, their actual practices were still not up to par. This might be a result of a lack of a structured process for communicating and delivering bad news.

This study found statistically significant differences in gender and age awareness, which are similar to those found in Egyptian studies [16], but different from those found in Farber and colleagues' studies [18]. This variation may be explained by the stark cultural differences present in the BBN settings. In the present study, there was no statistically significant difference among physicians in terms of their clinical position. The best awareness and practice scores were more evident among medical officers, and registrars, while the lowest scores were among consultants. The explanation may be related to the consult not being present all the time, or not being in direct contact with the patients. Moreover, our findings revealed that there was a statistically significant difference among medical specialties where good awareness and practice scores were more frequent in oncology, pediatrics, and surgery, and the least frequent among orthopedic and family physicians. These results are opposed to the results of a study conducted in Belo Horizonte, Brazil in which surgeons had the lowest score for the knowledge and attitude pertinent to breaking bad news, followed by internists [19]. This may be because surgical specialties lack training in communication skills and BBN, and direct contact with the patients is the least in comparison with internists and family physicians. Similarly, to another previous study [16,20], family physicians had a higher awareness of BBN than internists.

In the present study, physicians who received training on breaking bad news showed more frequently in the age range of 31-40 years, females, medical officers, and oncology physicians, but not to a statistically significant level. The present study does not align with the results of studies conducted in Egypt and Saudi Arabia [16,21,22] in which it was concluded that training has a considerable impact on physicians' knowledge and competence of BBN by enhancing their communication and substantiating the abstract value of this practice; however, in the present study,

the physicians' practice weakly positively correlates with their awareness of BBN. This is consistent with the results [16] which demonstrated that the practice of physicians positively correlates with their awareness of BBN. Yet, this disagrees with the study by Albunaian which found that there is a weak non-significant correlation between knowledge and competence [22]. This discrepancy might be brought on by the absence of a tool to evaluate BBN usage by doctors in their field of practice during studies.

CONCLUSION

Giving bad news is a vital skill in the patient-doctor interaction that can affect the patient's trust in their doctor as well as their adherence to their care guidelines. It is well acknowledged that doctors are aware of and do break bad news. The majority of individuals in the age range of 31–40 years score well on awareness. Medical officers showed higher acceptance ratings for their awareness and training than other groups Statistical analysis shows a correlation between awareness level, gender, and age. According to the findings of our study, training on the techniques of breaking bad news should be incorporated into future studies.

Study limitation

There are some drawbacks to this study. Firstly, this study was conducted during the COVID-19 pandemic, which had a high refusal rate and widespread non-cooperation from physicians, particularly specialists. As a result, the sample size dropped from 278 to 150 participants. Secondly, certain details like employment years and experience are lacking.

Authors' contributions

All authors equally contributed to the study.

Conflict of interest

There is no conflict of interest.

Ethical considerations

Obtained health authorization, and all doctors answered the questionnaire and signed the consent statement within a 15-minute period at the hospital during their work time.

Acknowledgment

The authors recognize and esteem the time and exertion of our colleagues who agreed to partake in this review.

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وعي ومهارات الأطباء الليبيين في إيصال الأخبار السيئة للمرضى في مستشفى طرابلس الجامعي

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المستخلص

يعد نقل الأخبار السيئة للمرضى تحديًا حساسًا للغاية يجب على جميع الأطباء مواجهته عاجلاً أم آجلاً. إنها واحدة من أصعب المسؤوليات في ممارسة الطب. يجب أن يتعلم الأطباء تقنيات التواصل الجيدة لمساعدة المرضى في التغلب على الأخبار السلبية. ولذلك، تهدف الدراسة إلى تقييم وعي ومهارات الأطباء الليبيين في إيصال الأخبار السيئة إلى مرضاهم. تم إجراء دراسة مقطعية في مستشفى جامعة طرابلس في الفترة من الأول من أبريل 2021 حتى الأخير من يوليو 2022. في ليبيا، تم إجراء استبيان منظم يعتمد على بروتوكول SPIKES المكون من 6 خطوات لنقل الاخبار السئية على 150 طبيبًا يعملون في مستشفي جامعة طرابلس لتقييم وعيهم وتدريبهم. كان لدى حوالي 46% من الأطباء وعي جيد بمكونات بروتوكول SPIKES المكون من 6 خطوات، بينما قام 53% بتنفيذ البروتوكول على المستوى المقبول. وكانت هناك دلالة إحصائية بين مستوى الوعي والعمر والجنس. لم تكن هناك علاقة ذات دلالة إحصائية بين الأطباء فيما يتعلق بمؤهلاتهم، والأطباء الحاصلين على درجة الدكتوراه، أو المسجل، والموظفين الطبيين حول درجات الوعي والممارسة. توجد علاقة ارتباطية ضعيفة موجبة بين درجة مجموعة الوعي ودرجة مجموعة التدريب .(r=0.20.p=0.015) إن وعي الأطباء بـ نقل الاخبار السئية عند مستوى مقبول، كما أن طريقة ممارستهم مقبولة أيضًا. يعد نقل الاخبار السئية موضوعًا مهملاً في التعليم والتدريب الطبي، خاصة بين الأطباء الذين تقل أعمارهم عن 31 عامًا.

الكلمات الدالة. الأخبار السيئة، الوعي، الأطباء، التدريب