

Breaking Bad News to Patients: Physicians' Awareness and Practice

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Abstract:

Background: Breaking bad news (BBN) is a routine yet distressing task for physicians and patients. Patients suffer considerable discomfort when bad news such as disease recurrence, spread or treatment failure is disclosed to them. Their physicians, therefore, should acquire effective communication skills to help them overcome these feelings. **Objectives:** To assess the physicians' awareness and practice of breaking bad news to patients. **Methods:** A cross-sectional study was carried out in a rural Family Health Center (FHC), Menoufia, Egypt. A semi-structured questionnaire based on the 6-step SPIKES protocol for BBN was administered to 170 physicians working and training in the FHC to assess their awareness of the process. The practice of these physicians was assessed against a checklist. **Results:** About 68% of the physicians had good awareness of the components of the 6-step SPIKES protocol, while 58% implemented the protocol at a fair level. There was a statistically significant difference among physicians' results based on specialties where family physicians and general practitioners had higher awareness and practice scores. As regards their qualifications, physicians with Ph.D. degrees or fellowships had statistically significant better awareness and practice scores. The physicians who received training on breaking bad news had higher awareness and practice scores. There was a statistically significant positive correlation between participants' years of experience and their awareness and practice. **Conclusion:** Physicians' BBN awareness is good; however, their technique of practicing is fair. It is a neglected issue in physicians' education and training, particularly in the case of novice physicians.

Keywords: breaking bad news, awareness, physicians, practice

Introduction:

Breaking bad news (BBN) is an essential skill that determines the patient-doctor relationship. Delivering bad news is a daunting task that almost all physicians at different levels of health care have to perform which requires them to be particularly conscious of their patients' feelings.⁽¹⁾


Bad news can be defined as any medical news that encompasses substantial emotional valence and could drastically alter an individual's life or perspective. Commonly, breaking bad news is

associated with delivering news about a terminal disease such as cancer.

In the field of family practice, BBN may be in the form of informing the patient of having a chronic disease such as diabetes mellitus, especially if the patient has his/her idea about the adverse consequences of the disease. It may also be in the form of telling a pregnant woman that her fetus suffers from congenital anomalies.⁽²⁾

Many physicians find it so difficult to deliver bad news to their patients. This may be due to their fear to evoke unfavorable reactions of patients or their relatives,

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become emotionally disengaged from them, or even fail to control their own emotions.⁽³⁾

Breaking bad news is part of an evolving process that should be dependent on a strong pre-established relationship. Within primary care, communication is much easier and the patient-doctor relationship is more pertinent.⁽⁴⁾

Although delivering bad news occurs through many situations in the level of primary care, much of the research was conducted mainly on the secondary care level. Thus, it has been observed that a long-term relationship between the patient and his/her primary care physician makes the process of breaking bad news easier.⁽⁵⁾

Accordingly, breaking bad news requires specialist training in communication skills to help physicians perform this task. Hence, the development of training programs designed to facilitate communication in critical situations is mandatory in medical education courses.⁽⁶⁾

A major behavioral and practical difference is observable between the physicians exposed to these concepts during medical school lectures and those received it through educational interventions or during clinical practice.⁽⁷⁾ Therefore, the current study aims to assess physicians' awareness of breaking bad news and evaluate their established practice.

Methods:

A cross-sectional study was carried out on the physicians who received training in Munshaat Sultan Family Health Center (FHC), Menoufia Governorate, Egypt in about nine months from October 2018 to June 2019.

Considering the power of the study to be 80%, confidence level to be 95%, and the prevalence of knowledge to be 50% (being the prevalence needed to collect the maximum sample size), the total study population was 340 physicians and the calculated sample was 166 participants.

Assuming that the dropout rate is 20%, the sample size was increased to be 200 participants to account for the dropout rate of the required three times observations to avoid Hawthorne bias. The study included 170 participants after excluding 20 participants who participated in the pilot study and 10 participants who did not attend practice observation. Participants were selected using a simple random sampling technique.

To assess the awareness and practice of breaking bad news, physicians were interviewed using a semi-structured questionnaire that comprised two parts. The first part was to identify their age, sex, qualifications, and years of experience, and the second part consisted of 29 items that were based on the 6 components of SPIKES

protocol for breaking bad news. A checklist was developed based on the SPIKES protocol to observe BBN skills.

The studied physicians were asked to simulate the delivery of a malignant tumor growth news. Patients' roles were played by trained faculty members unknown to participants. Faculty members' mean age was 34 years. Participants were informed that observation results are confidential and would not affect their performance evaluation.

Data collectors recorded the results against an observation checklist for 3 times, and the mean score of observations was obtained to avoid the Hawthorne bias.

The questionnaire and observation checklist questions addressed participants' awareness of the detailed steps for setting up the interaction with the concerned person, assessing patient's awareness, obtaining patient's invitation, giving knowledge and information to the patient, addressing patient's emotions with empathic responses, strategy, and summary.⁽⁸⁾

Each item was answered through a three-Likert scale form. The practice of each of the previously mentioned items was also answered through a five-Likert scale. A pilot study was conducted on 20 participants. The reliability (Cronbach's Alpha) for awareness and practice was

calculated to be 0.86. The overall awareness and practice scores depending on the 6-step SPIKES model were also calculated.

They were classified into 3 levels: the bad level with a score less than 60% of the maximum, the fair level with a score ranging from 60% to 80%, and the good one with a score of more than 80% of the maximum. Questionnaires were distributed among the participants and collected during the same time interval after confirming that all questions were answered.

Statistical analysis:

Data were collected, tabulated, and statistically analyzed in a personal computer using IBM Statistical Package for Social Science (SPSS) version 23. Qualitative data were presented as a percent. Quantitative data were presented in the form of means and standard deviations (SD) and analyzed using the unpaired *t*-test.

Comparing more than two quantitative data were analyzed using one-way ANOVA (F-test). Pearson coefficient was used to analyze the correlation. P-value was considered significant at <0.05 .

Results:

The general characteristics of the studied participants were described in Table 1. In terms of the different items of SPIKES model, 68.3% of the physicians had a good level of model awareness and 28.2% had fair model awareness. In terms of their

practice, 58.4% of the physicians had a fair level of practice and 39.8% showed a good level (Table 2).

There was no statistically significant difference among male and female physicians in terms of awareness and practice (p -value 0.38 and 0.67, respectively), while there were statistically significant differences in terms of their medical specialty (p -value 0.04 and <0.001), qualifications (p -value <0.001 and <0.001), and training (p -value <0.001 and <0.001) (Table 3).

Upon assessing the correlation between awareness and practice on one hand and between awareness and age on the other hand, there was no correlation (p -value 0.2, and 0.19 respectively), while the number of experience years showed a statistically significant positive correlation (p -value 0.04 and 0.007, respectively) (Table 4).

There was a statistically significant positive correlation between physicians' awareness and practice (Figure 1).

Discussion:

In terms of adherence to the different items of SPIKES model steps in the current study, most of the physicians showed a good level of awareness yet a fair level of practice.

These results are analogous to the results of a study conducted in Greece and concluded that although physicians had

appropriate awareness of the importance of breaking bad news to their patients, their practice was still unsatisfactory. This may be due to the absence of a consistent communication process and standardized procedures for delivering bad news.⁽⁹⁾

In this study, there was no statistically significant difference in terms of awareness and practice to gender and age which is different from the study of Farber and colleagues.⁽¹⁰⁾ This discrepancy might be explained considering the profound cultural differences in BBN settings.

There was a statistically significant difference among physicians in the present study in terms of their medical specialty where the best awareness and practice scores were more evident among family physicians and general practitioners, while the least scores were among surgeons.

These results are similar to the results of a study conducted in Belo Horizonte, Brazil in which surgeons had the least score for the knowledge and attitude pertinent to breaking bad news, followed by internists.⁽¹¹⁾ This may be because surgical specialties lack training in communication skills and BBN and their direct contact with the patients is the least in comparison with internists and family physicians. Similarly, in the study of Zvi and colleagues, family physicians had a higher awareness of BBN than internists.⁽¹²⁾

The present study found that the higher the qualifications are, the better the awareness and practice of BBN. This result is comparable to that of a study conducted by Monden and colleagues which can be explained by the fact that the aim and structure of training programs vary according to the level of postgraduate education.⁽¹³⁾

In the current study, the level of awareness and practice are of statistically higher level to the number of years of experience; this is consistent with Farber and colleagues' study who found that physicians with more work experience are more skilled in delivering bad news.⁽¹¹⁾

In the present study, physicians who received training on breaking bad news showed a statistically better level of awareness and practice. On the one hand, this is consistent with the results of two studies conducted in Saudi Arabia and Egypt where both of them concluded that training has a considerable impact on physicians' knowledge and competence of BBN as it enhances their communication and substantiates the abstract value of this practice.^(14, 15)

On the other hand, these results are different from those of the study conducted by Fuerst and colleagues. In the latter study, the authors found that there was no significant difference in the physicians'

performance depending on receiving training for BBN.⁽¹⁶⁾

This may be because their study was conducted on only ophthalmologists who received this training during their undergraduate studies and did not have an opportunity to translate it into practice in their professional life.

In the present study, the physicians' practice positively correlates with their awareness of BBN. This does not agree with the study of Albunaian and Koura which found that there is a weak non-significant correlation between knowledge and competence.⁽¹⁴⁾

This difference may be due to the lack of a tool that can assess the practice of BBN among physicians in their work field during their study.

Conclusion and recommendations:

Breaking bad news is a fundamental skill in the patient-doctor relationship which can affect the patients' faith in their doctors as well as their compliance with their management instructions. Physicians' awareness is generally good, but their practice is still fair. Higher qualifications, long years of experience, and effective training play important roles in strengthening BBN skills.

Based on the results of our study, training on the practice of breaking bad news should be included in the study

curriculum of postgraduate students. More research is needed to evaluate the effect of training programs on physicians' BBN practice.

Study strengths and limitations:

In our view, the main point of strength in our study is that it included different medical specialties and qualifications. In addition, the study evaluated the on-job practice. In terms of limitations, the sample size was not large enough.

Therefore, the generalization of our findings should be approached with caution. Besides, our findings might be influenced by the cultural, social, or demographic background of our population which could also limit the generalizability of our findings to other populations. Also, Hawthorne's bias was met during observation, but it was overcome through 3 observations at different times and the mean was calculated.

Ethical considerations: Ethical approval was obtained from the ethical committee in Menoufia Medical School and written informed consent was obtained from the participants.

Authors' contributions: All authors equally contributed to the study.

Conflict of interest: There is no conflict of interest.

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Table (1): General characteristics of the studied participants

Item	No. (170)	Percent (%)
Age	31.62±6.05	
Sex		
▪ Male	96	56.5
▪ Female	74	43.5
Specialty:		
▪ GP/FM	114	67.1
▪ Pediatrics/Internal medicine	25	14.7
▪ Surgery	31	18.2
Physicians' Qualifications:		
▪ MBBCH	74	43.5
▪ Diploma/Master	40	23.5
▪ Ph.D./Fellowship	56	33.0
Physicians' years of experience in medical practice:		
▪ <5 years	73	42.9
▪ >5 years	97	57.1
▪ Mean±SD	7.5±5.9	
Received training for BBN	63	37.1

SD (standard deviation) BBN (breaking bad news)

GP (general practitioner) FM (family physician)

Table (2): Knowledge and practice of physicians of each step of breaking bad news

Importance of the following items in BBN	Knowledge	Practice
	(Mean±SD)	
Properly setting up the interview	9.11±2.76	16.09±2.78
Assessing patient awareness	8.86±2.03	12.31±3.08
Obtaining the patient invitation	5.63±2.07	8.5±1.92
Giving knowledge and information to the patient	7.59±2.06	12.3±2.04
Addressing the patient's emotions with empathic responses	7.36±2.17	13.01±2.44
Outlining strategy and summary	14.85±5.28	24.89±4.16
Overall score:		
Bad	6 (3.5)	3 (1.8)
Fair	48 (28.2)	99 (58.4)
Good	116 (68.3)	68 (39.8)
Mean±SD	53.41±11.71	87.17±9.95

SD (standard deviation)

Table (3): Difference in the knowledge and observed practice score among physicians in terms of their general characteristics:

Score	Knowledge	Practice
Gender:		
▪ Male	52.52±12.13	86.74±10.32
▪ Female	55.56±11.15	87.6±9.55
Student t-test (P value)	0.87(0.38)	0.43(0.67)
Specialty:		
▪ Family medicine/ general practitioners	55.17±11.24	90.06±9.35
▪ Pediatrics/internal medicine	51.67±10.29	84.27±8.8
▪ Surgery	48.37±13.24	78.68±7.47
F-test* (P value)	4.81(0.04)	12.88 (<0.001)
Qualifications:		
▪ MBBCH	48.44±12.17	78.11±6.23
▪ Diploma/Master	54.58±10.69	90.88±5.23
▪ Ph.D./Fellowship	59.15±8.82	96.38±5.09
F-test* (P value)	9.65 (<0.001)	108.09 (<0.001)
Received training:		
▪ Yes	66.81±4.54	92.52±9.47
▪ No	45.57±6.11	83.95±8.86
Student t-test (P value)	18.63 (<0.001)	4.62 (<0.001)

F-test (One-way ANOVA)

Table (4): Correlation of the knowledge and observed practice score with the age and years of experience of the physicians:

Item		Knowledge	Practice
Age	r	0.13	0.13
	P value	0.2	0.19
Years of experience	r	0.276	0.264
	P value	0.04	0.007

r (Pearson correlation)

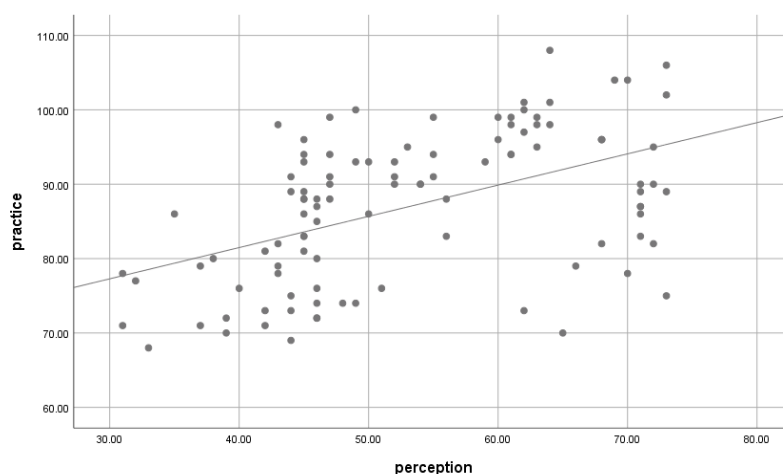


Figure (1): Statistically significant positive correlation between physicians' awareness and practice (Pearson correlation $r=0.42$, p -value 0.002)

المخلص العربي

توصيل الاخبار السيئة للمرضي: وعي وممارسة الأطباء

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الخلفية: ان توصيل المعلومات السيئة مهارة ذات حساسية عالية والتي تحدد علاقة المريض بالطبيب وحي عملية صعبة تواجه جميع الأطباء في كل مستويات الرعاية الصحية والتي تعد عملية معتمدة بالكلية على العلاقة القوية مسبقا بين الطبيب والمريض. في مجال العمل في الرعاية الصحية الأولية التواصل أسهل والعلاقة أقوى بين المريض وطبيبه. وعلى الرغم ان هذه العملية تحدث في مواقف كثيرة على مستوى الرعاية الأولية، ولكن الأبحاث معظمها في المستوي الثاني من الرعاية الصحية. لذلك فانه من الواضح ان توصيل الاخبار السيئة يحتاج تدريب متمكن في مهارات التواصل للمساعدة في اكتسابها وذلك عن طريق تطوير برامج التدريب للتواصل في مختلف المواقف الحرجة وضرورة تواجدها في التعليم الطبي.

الهدف: تهدف الدراسة الي تحديد وعي وممارسة الاطباء لتوصيل الاخبار السيئة للمرضي. **طرق البحث:** تضمنت دراسة مقطعية أجريت في مركز صحي ريفي في محافظة المنوفية- مصر على 170 طبيب يعملون ويتدربون في المركز خلال الفترة من أكتوبر 2018 وحتى يونيو 2019 وقد تم اختيارهم بشكل عشوائي وتم جمع البيانات باستخدام استبيان مبني على بروتوكول الست خطوات SPIKES وتم ملاحظة ممارسة الأطباء باستخدام قائمة تدقيق مبنية على بروتوكول الست خطوات. **النتائج:** حوالي ثلثي عدد الأطباء لديهم وعي جيد لتوصيل الاخبار السيئة ونصفهم يمارسونها بأداء متوسط وقد ظهر ان النسب الأعلى في الممارسة والوعي كانت بين أطباء الاسرة مقارنة بباقي التخصصات وأيضا من يحملون مؤهلات الدكتوراه والزمالة لديهم وعي اعلي وممارسة أفضل وتم ملاحظة أيضا ان من تلقوا تدريبات خاصة بتوصيل الاخبار السيئة كان وعيهم وممارستهم تتم بشكل أفضل. **الخلاصة:** على الرغم من ان وعي الأطباء كان في مستوي جيد الا ان ممارستهم لتوصيل الاخبار السيئة الي مرضاهم كانت متوسطة المستوي خاصة ان هذا الموضوع مهمل في الجانب التعليمي والتدريبي للأطباء. **التوصيات:** نوصي بإدراج توصيل الاخبار السيئة الي المنهج التعليمي والتدريبي للأطباء سواء كان في مرحلة الدراسة الجامعية وبعد الجامعية كما نوصي بعمل دراسات معتمدة على ادخال برامج تدريبية وقياس تأثيرها على الوعي والممارسة بشكل أفضل .