



# Evaluation of general physicians' skills in breaking bad news to the patient based on the SPIKES Questionnaire in Qom, 2016

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## ABSTRACT

**Background:** Breaking bad and unpleasant news by physician to patient or his or her family is a key moment in communication between a physician and the patient. It is often necessary for physicians to breaking bad and unpleasant news to the patient or his or her family. The objective of this study was to evaluate the skill of general physicians in breaking bad and unpleasant news to the patient based on the SPIKES questionnaire in educational hospitals of Qom University of Medical Sciences in 2016.

**Methods:** This descriptive-analytical study was conducted on 200 general physicians. Convenient sampling method was used in this study. Data were collected using standard Spikes Questionnaire and data were analyzed by using descriptive and inferential statistical tests through SPSSv21 software.

**Results:** Most of the subjects were male (69.5%), married (85.1%), and had no history of receiving formal education about breaking bad news to the patient. The mean and standard deviation of the subjects were  $37.43 \pm 4.02$  years. The mean and standard deviation of the score of the skill of breaking bad news were  $63.56 \pm 6.51$ . While independent t test showed significant difference in mean and standard deviation of score of the skill of breaking bad news between the two groups ( $p < 0.05$ ), no significant difference was reported between two groups in terms of two variables of gender and clinic place ( $p > 0.05$ ). Moreover, using variance analysis, a significant difference was found in mean score of breaking bad news in different age groups with different employment history ( $p < 0.05$ ).

**Conclusion:** The research results revealed that the skill level of the research samples was relatively at desirable level. Given the lack of receiving formal education by general physicians and the impact of breaking bad news from physician to patients and their caregivers on the type of relationship between the physician and the patient, it is recommended to put more emphasis on continuous education programs, designed especially for general physicians.

**Keywords:** breaking bad news, general physician, SPIKES guideline

## INTRODUCTION

Breaking bad news for patients is one of the major concerns of the physicians. In all medical disciplines, it is sometimes necessary to give bad and unpleasant news to the patient or his or her family (1). Breaking bad news is not so easy task and it is clear that one of the most important skills needed for physicians when they encounter the patient is breaking news on the severity of the diseases (2).

In the past, physicians did not inform the patients on the severe and fatal diseases. They believed that the patient's lack of knowledge of this problem would prevent their despair (1). At current time, informing the patient of all the details of the disease (if patient desires) is a legal and ethical duty for all physicians (3 and 4). Based on verse 155 of Bagareh Sura, it is the right of all people to know the facts on themselves and in accordance with divine values, they have right to make decision freely and without compulsion about their future. In addition, Islam strongly emphasizes on the pre-

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death readiness (4). However, breaking bad news on serious or fatal disease is very annoying for the patient and may lead to inappropriate reactions in addition to causing mental illness in the patient (5). Receiving bad news can be a psychological shock to the patient, leading to concern, worry, and sudden changes in his life (4, 6). It is important to give the bad news in a way that patients do not miss their hopes and do not feel depressed (7).

From this perspective, the way of informing the patient of bad news has always been the concern of physicians (8). One of the most important reasons that causes physicians have difficulty in breaking bad news to a patient is the lack of their knowledge on properly reporting of the bad news to a patient and lack of knowledge on its consequence. The physician's skill in breaking the bad news to the patient and his or her caregivers give relief for them and makes the momentary and delayed consequences of the bad news much easier (10). The results of the studies suggest that accepting physicians' behavior by patients is associated with the way of breaking the bad news to patients, that in 95% of cases, those physicians were accepted by patients who showed emotional and sympathetic behavior with the patients in breaking the bad news (11). It can even be stated that based on the studies conducted, the effective and timely use of communication skills in breaking bad news by physicians will also improve the quality of treatment (12). The way of informing the patient on his or her severe or fatal diseases has never been included in Iran's medical education programs (13). However, major educations are provided to medical students in developed countries (14). The SPIKES model is one of the practical guidelines in breaking the bad news in the world based on a mutual communication model. The steps to provide bad news according to the SPIKES guideline include planning a program for conversation, evaluating patient perceptions, inviting the audience for a conversation, breaking information to the patient, responding emotionally to the patient and planning and summarizing (2). If the physician has adequate knowledge and skills during the sixth phase of the SPIKES guideline, he can success in breaking bad news to the patient and preventing severe mental illnesses (15). While there are other solutions other than the SPIKES method to prepare the patient for bad news (14), their formation are generally due to research which has considered the physicians' views (16-18). Based on the studies, SPIKES is a guideline which can fully meet the needs of patients for receiving the bad news (2, 19). Since no study has been conducted to evaluate the skill of general physicians to provide unpleasant and bad news using the SPIKES standard questionnaire in Iran, this research was conducted to evaluate the skill of general physicians in Qom in breaking unpleasant news for patient in the years 2015 and 2016.

## METHOD AND MATERIALS

In this descriptive-analytical and cross-sectional study, data on the performance of 200 general physicians working in public and private health centers of Qom in 2016 on breaking bad news was evaluated using the global SPIKES standard questionnaire using the convenient sampling method. Data were collected by three trained questioners. Individual characteristics included variables such as age, gender, marital status, and employment history and working place. The SPIKES standard questionnaire, which is based on the principles of the Global Calgary-Cambridge Standard Guideline, was introduced by the World Federation of Medical Education in 2004 as a standard clinical guide. Thus, this guideline is considered as standard guideline in breaking interpersonal communication skills in the area of the performance of medical job owners in breaking the bad news. The SPIKES protocol includes two mental and environmental domains with 20 questions. The first 11 questions relate to psychological factors (empathy, knowledge and information) and 9 final questions relate to environmental factors (initial coordination, strategy determination, planning, and professionalism). They are scored in 5-point Likert scale and the maximum score for all questionnaire items is 100. Validity and reliability of this questionnaire in Iran was confirmed by FarokhYar in 2012 (19). After collecting the data, they were entered into SPSS V21 and analyzed by descriptive and inferential statistical tests of one-way ANOVA at a significant level of less than 0.05.

## RESULTS

In the present study, 200 general physicians completed two-part questionnaire. Majority of the subjects were male (69.5%), married (85.1%) and working in private sector (59.2%). The age of the subjects was between 26 and 65 years with a mean and standard deviation of  $39.43 \pm 4.02$ .

The mean and standard deviation of the score for breaking the bad news were  $63.56 \pm 6.15$  in the subjects (**Table 1**). The results showed that most of the subjects did not receive formal education on breaking the bad news and 83.3% provided bad news to their patients and their caretakers according to their personal experience. While independent t test showed significant difference between the two groups in terms of mean and standard deviation of score of the skill

**Table 1:** The score obtained by physicians in each domain and in total (mean and standard deviation) and the significance level

Domain	Sub-domain	Mean and standard deviation of obtained score
Environmental	Initial coordination	11.85±1.54
	Strategy determination	7.12± 1.56
	Planning	6.03 ± 1.21
	Professionalism	4.26 ± 0.65
	Sympathy	6.53 ± 1.57
	Knowledge and information	15.14 ± 2.43
	Inviting to information	7.46 ± 1.48
<b>Total score (0-100)</b>		<b>63.56 ± 6.51</b>

**Table 2:** Comparison of scores in domains of skills in breaking bad news and total score in terms of gender and marital status

Domain	Gender		P-value	Marital status		p-value
	Female	Male		Single	Married	
Initial coordination	11.45 ± 1.34	11.37±1.50	0.14	11.37±1.31	11.67±1.52	0.032
Strategy determination	7.02± 1.16	7.11±1.54	0.074	7.21±1.14	7.41±1.62	0.034
Planning	6.03 ± 1.31	6.17±1.34	0.102	6.23±1.11	6.56±1.31	0.004
Professionalism	4.36 ± 0.75	4.22±0.81	0.301	4.36±0.32	4.42±0.86	0.123
Sympathy	6.46 ± 1.43	6.87±1.56	0.083	6.41±1.41	6.83±1.62	0.013
Knowledge and information	15.21± 2.23	15.16±2.74	0.223	15.21±2.12	15.32±2.54	0.047
Inviting to information	7.24 ± 1.32	7.16±1.34	0.065	7.13±1.21	7.41±1.23	0.051
<b>Total score</b>	<b>63.26± 6.51</b>	<b>63.15±6.49</b>	<b>0.176</b>	<b>62.32±6.34</b>	<b>63.21±6.39</b>	<b>0.032</b>

of breaking bad news ( $p < 0.05$ ), no significant difference was reported between two groups of males and females and the clinic place (public or private) ( $p > 0.05$ ).

In addition, t-test results showed significant difference between the mean score of skill of breaking bad news in two groups under the age of 40 and over 40 years ( $p = 0.03$ ). Moreover, analysis of variance between different groups in terms of work employment variable showed significant difference between the two groups ( $p < 0.05$ ).

Among the 20 SPIKES items, the item "I consider the concerns, worries, and fears of the patient when I report the bad news" with 50%, the item "If the patient's family is available, I console them when breaking the bad news" with 49%, and the item "After informing the cancer disease news for patient, I introduce him a specialist and supportive team" with 49% had the highest priority of the response by the research subjects.

## DISCUSSION

In the present study, mean and the standard deviation of the skill of breaking bad news by the subjects were  $63.56 \pm 6.51$ . No study was found in line with the present study, but the research conducted by Rosin et al. (2013) in order to determine and compare the role of health care staff in breaking the bad news to patients on 151 health care professionals (51 nurses, 38 physicians and 26 social workers) showed that in comparing the score obtained among three groups studied, physicians obtained higher score in domains of feeling responsibility in breaking the bad news to patients and their families. Moreover, social workers obtained higher scores in breaking psychological support to the patients and their families and nurses obtained higher scores in providing supportive tool ( $P = 0.000$ ).

The results of this research show that breaking good news has caused more mental disorder in social workers than physicians and nurses. All three groups assigned more scores to emotional exhaustion, sadness and acceptance of responsibility this task in the consequence of breaking bad news to patients. Compared to the two groups of physicians and social workers, nurses were more fear of breaking the death to relatives or families of patients and made more effort to escape it. At the end of their research, researchers stated that expansion and development of executive guidelines is helpful in reporting the bad news and breaking death to their patients and their caregivers. Researchers also recommend using simulation and other workshops to train health and medical groups (20). In the present study, there was a significant difference between the two single and married groups in terms of the score of skill of breaking the bad news. In addition, a significant difference was seen among the groups at different ages in terms of mean and standard deviation of scores, but in terms of clinic place, this difference was not statistically significant. In the research conducted by Locatelli et al. (2013), the way of breaking the bad news not only was associated with patient's age and gender, but also the geographical area where they were working (21).

In this regard, in a descriptive study conducted by Arbabi et al in 2008-2009 on a sample of 100 people (50 physicians and 50 nurses) at Tehran Cancer Institute of Imam Khomeini Hospital, the majority of physicians (86%) and nurses (74%) with more age and experience had tendency to report the type of disease diagnosed for patients, while only a few physicians (8%) were trained in breaking the bad news. In addition, the majority of physicians and nurses preferred to inform patients about the diagnosis of the disease when they are alone or in the presence of their spouses. The researchers concluded that, compared to past, physicians and nurses have more willingness to announce the cancer disease diagnosed for the patients and lack of adequate communication skills in caregivers and their concern about managing emotional reactions of patients reduces their willingness to announce bad news to patients. Thus, providing education for physicians and nurses on the way of breaking the bad news for patients is necessary (22).

The present research revealed a significant in mean score of skill of breaking the bad news among different age groups. Studies have also shown that breaking the bad news is one of the challenging issues of clinical physicians, and many of them, especially young ones, have difficulty in this regard and feel bad when breaking the news (23).

In the present research, majority of the subjects reported that they did not receive formal education on breaking the bad news. Hebert et al conducted a study in 2009 on the need for education to improve the skills and knowledge of oncologists and they realized that majority of the research samples did not receive formal education on improving the skills of breaking the bad news. Majority of the research samples (63%) stated that it is very important to provide formal educations to improve the oncologists' skills in order to acquire the skills of breaking the bad news, and 34% also stated that education can be useful and only 3% of respondents did not believe that education is needed. Moreover, 43% of them stated that they did not receive any organizational support for education in this regard (24). In proving the results of the Hebert study, the results of the research conducted by Goncaluz et al. (2017) to examine the family physicians' perceptions of bad news in Portugal country showed that 85% of the samples reported that breaking the bad news is a difficult task. In addition, 78% felt that they needed for education to announce the bad news for the patients and this education is recommended to provide at the beginning of their education (25). Psychological and behavioral training in the provision of health services, and the evaluation of its results, have been emphasized in various studies (26-29).

## CONCLUSION

The research results suggest that the research samples had relatively good skill level. As majority of the samples stated that they did not receive formal education on the skill of breaking the bad news, it is necessary that medical education planners pay attention to this important issue. Hence, it is recommended that the formal curriculum to be designed for medical students on breaking the bad news to acquire this skill. As limited studies been conducted in this area, it is recommended that similar studies to be carried out in this area in other Iranian universities of medical sciences.

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