Bad news is defined as “any information that adversely and negatively affects the patients’ view of future” (1). When a patient receives bad news, his/her life changes (2). The way these massages are delivered is highly important because the lack of sufficient skill and knowledge can negatively impact both the patient and physician (3). Physicians find this situation complex and stressful (4). Breaking bad news has psychological effects on both patient and doctor (5). Studies have demonstrated patients’ need and interest to know the truth (6, 7). Therefore, if they feel that their doctor is not honest, it makes them more anxious and damages their trust (8, 9). The reasons that prevents the doctors from being truthful about breaking bad news include fear of being blamed, unexpected evoking reactions by the patients and their family, and expressing piteous emotions and questions (10-13). It is demonstrated that telling the truth has several benefits, such as strengthening the physician-patient relationship, less complains against the physician and better decision making for the treatment process (14). However, high-risk situations, such as the probability of suicide or harm to others, are an exception. In spite of the benefits of being truthful, if bad news is not delivered appropriately, it will have negative consequences (15).

Several published articles have evaluated the efficacy of different protocols to improve the quality of physician-patient communications. However, it still remains as the most daunting duty of physician. In addition, the findings of these studies could not be generalized to our society, as several factors, including, culture, beliefs, and religion, family relationship, and community, potentially influence the physician-patient relationship (16). For example, the patients’ right to know the truth and the physicians’ duty to tell the truth, which is a leitmotif in Western countries, might be problematic in the Middle East (17-19).
A few similar studies have been conducted on this subject in Iran, but not in Guilan province. It seems that the issue has not been appropriately addressed among our physicians. Thus, due to the importance of a culture-based protocol for breaking bad news, the health care team in each area must follow their localized guidelines (4). In this research, as the first steps toward development of practical approaches to deliver bad news, the way physicians in Guilan academic hospitals managed the issue was investigated.

**Materials and Methods**

This study was conducted at teaching hospitals affiliated to Guilan University of Medical Sciences (GUMS), Rasht Iran, during 2017. Firstly, the aim and the method of the research were explained to the faculty and residents of GUMS. If they accepted to participate, a questionnaire was filled through a face to face interview. This was a multicenter study and a specialist was responsible for data collection in each hospital. Finally, all the gathered questionnaires were delivered to the authorized specialist.

**Ethics**

The study protocol was approved by the Research Ethics Committee of the GUMS (Ref: IR.GUMS.REC.1396.243) and participants provided written informed consent.

**Questionnaire**

In this paper, a questionnaire, taken from the study of Ghaffarinejad et al with confirmed validity and reliability, was used (20). This 18-item questionnaire had 2 main parts. The first 10 questions evaluated psychological support and 8 items evaluated environmental support. Each question was scored from 10 to 50, with the score of 10 indicating “Never” and 50 “Always”. Baseline information was gathered and the need for implementing specific educational courses and the history of attendance at these classes were also questioned. Finally, data were included in statistical analysis.

**Sample Size**

According to a preliminary study on 20 faculty and residents, in which 80% declared that they had insufficient knowledge to break bad news to the patients, the sample size of 235 was determined.

**Results**

Of the 243 returned questionnaires, eight were not completed, so 235 questionnaires were analyzed. Of the respondents, 97 (41.3%) were specialists and 138 (58.7%) residents. Of the participants, 111 (47.2%) were female and 124 (52.8%) were male. The mean years of experience was 8.97 ± 7.14, with the least years of experience being one and the most 27 years. Only 32 (13.6%) of the participants had been taught to deliver bad news and 195 (83%) felt they need a course to develop this skill. However, 40 (17%) believed they had enough ability to deliver such news. The mean scores for each item are shown in Tables 1 and 2. Moreover, only 19.1% of the physicians believed that it is the patients’ right to know about their exact survival time. A significant difference was found in gender and environmental & psychological support scores, which indicated that females achieved higher scores. (P = 0.001). Also, a positive correlation was found between degree and psychological support score, as it was significantly superior among specialists compared to residents (P = 0.001). However, this difference was not observed in environmental support score (p = 0.18). The correlation between gender and degree (specialist or resident) with achieved scores are presented in Tables 3.

**Discussion**

Irrespective of physicians’ specialty, they are frequently faced with a default condition to break bad news, and the quality of breaking such news directly affects patients’ health outcomes (9). Studies have shown a significant difference between patients and physicians’ preferences on the ways to break bad news. In addition, these studies have indicated that most clinicians found this task a complex communication skill and they had much difficulty to tell the truth to their patients, so they strongly felt the need for training on this important issue (10, 12, 19 and 21). Aein et al in Shahre Kord, Iran, in a research article demonstrated the importance of the proper way to deliver bad news. Mothers of children with cancer were interviewed, and most of them were dissatisfied about the way they received the bad news (22). A study was conducted by Arbabi et al at the Cancer Institute of Tehran University of Medical Sciences, and it found that only 8% of physicians had been taught to disclose bad news (23). In a similar study performed by Ghaffarinejad et al, faculty members and residents of academic hospitals in Kerman were enrolled, and it was found that only one of them had passed an educational course for breaking bad news. However, no significant difference was found between faculty and residents in communication skill in that study (20). Jalali et al in Birjand, Iran, investigated the experiences of patients and their families who had received bad news by health care providers and different reactions were reported. They declared that more attention should be paid to this topic. Moreover, supportive approaches must be established when breaking bad news (24). The questionnaire used in this study only expressed the way that bad news were delivered but did not discover participants’ experience or ability. However, in line with previous studies, the results of this study revealed the need for developing educational courses for breaking bad news. In this study, 86.4% of the physicians had not been trained to break bad news appropriately and 83% declared the necessity of these courses. This seems to be a promising finding because it indicates that only 3.4% had neither been under teaching interventions nor felt its importance. In this study, no significant difference was reported.
between trained and non-trained groups, demonstrating that the current educational programs are not efficient and should be modified. Another significant finding was that a small percent of our participants (11.5%) always believed in the necessity of being truthful to patients and deliver bad news as soon as possible. No significant differences were observed regarding the ways of giving bad news between physicians who had teaching programs with others. Specialists significantly achieved higher scores, according to psychical support items. It shows that our clinicians have got some experience and do not follow a standard guideline to communicate with their patients. These findings uncover the fact that current educational strategies might not be sufficient enough to improve the physician-patient communication skills. This problem is not limited to Iran, even in developed countries, such as USA and UK, a few studies have assessed patient-based evidence for the recommended protocols on this issue (25). Monden K from Baylor University at Dallas, USA, reported that 91% of the physicians believed that giving bad news is an important skill, but only 40% of them had received training for it (12). On the whole, similar to the most academic centers in Iran, there is not a well-planned teaching protocol for breaking bad news. The problem is partly due to the fact that, historically, medical students’ tendency has been toward focusing on technical proficiency rather than concentrating on the importance of proper communication skills (4, 12). Given the mentioned deficiency in the current literature, it is time to oppose the traditional teaching approaches in which medical students just follow the specialists’ behavior in clinical setting and everything goes on according to some experience instead of formulized protocols. This topic should play a more prominent role in teaching curriculums of medical schools (9). We acknowledge that professionalism and interpersonal communication skills are subjective and difficult to be assessed by a questionnaire (26), however, the obtained results are undeniable and revealed that the current educational programs should be modified and communication skill training courses must be added to the curriculum of medical schools.

This survey is valuable because it tried to shed light on the importance of a subject that has not received sufficient attention. Also, this was a multicenter study with a proper sample size. Guilan University, with several academic hospitals that constitutes the majority of residential specialty fields, can report valuable results.

| Table 1. The Environmental Support Questions and the Prevalence of the Answers among Faculty & Residents of GUMS |
|---------------------------------|-----|-----|-----|-----|-----|
|                                | Never | Seldom | Sometimes | Often | Always |
| I attract the family support   | 1(0.4%) | 10(4.3%) | 27(11.5%) | 94(40%) | 103(43.8%) |
| I appraise the patients information requirement | 1(0.4%) | 13(5.5%) | 23(9.8%) | 95(40.4%) | 103(43.8%) |
| I give them an exact survival | 2(0.9%) | 32(13.6%) | 79(33.6%) | 77(32.8%) | 45(19.1%) |
| I hold their arm for warm empathy | 27(11.5%) | 73(31.1%) | 68(28.9%) | 49(20.9%) | 18(7.7%) |
| I highlight the importance of the issue before telling the details | 2(0.9%) | 6(2.6%) | 37(15.7%) | 98(41.7%) | 92(39.1%) |
| I also carry them hope         | 2(0.9%) | 16(6.8%) | 42(17.2%) | 74(31.5%) | 101(43%) |
| I exactly tell them how long they will live | 86(33.6%) | 87(37%) | 43(18.3%) | 16(6.8%) | 3(1.3%) |
| I care about their concerns and interests | 7(3%) | 86(37.6%) | 54(23%) | 88(37.4%) | 80(34%) |
| I deliver bad news as soon as they are aware from their illness | 19(8.1%) | 39(16.6%) | 84(35.7%) | 66(28.1%) | 27(11.5%) |
| I encourage them to express their feeling | 8(3.4%) | 37(14.7%) | 73(31.1%) | 80(34%) | 37(15.7%) |

GUMS: Guilan University of Medical Sciences
Table 2. The Psychical Support Questions and the Prevalence of the Answers among Faculty & Residents of GUMS

|       | Never | Seldom | Sometimes | Often | Always |
|-------|-------|--------|-----------|-------|--------|
| 1 I choose a private location | 2(0.9%) | 15(6.4%) | 21(8.9%) | 116(49.4%) | 81(34.5%) |
| 2 I choose a time that relatives feel comfortable | 3(1.3%) | 9(3.8%) | 30(12.8%) | 113(48.1%) | 80(34%) |
| 3 I sit beside them not at my table | 13(5.5%) | 39(16.6%) | 83(35.3%) | 62(29%) | 38(16.2%) |
| 4 I wear my medicine coat | 9(3.8%) | 26(11.1%) | 39(16.6%) | 84(35.7%) | 77(32.8%) |
| 5 I introduce them to patient support groups | 23(9.8%) | 44(18.7%) | 62(26.4%) | 66(28.1%) | 40(17%) |
| 6 I make sure that a relative is available | 2(0.9%) | 11(4.7%) | 49(20.6%) | 87(37%) | 86(36.6%) |
| 7 I ask secretor to hold my phone calls | 12(6.55%) | 21(8.9%) | 40(17%) | 74(31.5%) | 88(37.4%) |
| 8 I Switch of turn of my cellphone and pager | 11(4.7%) | 30(12.8%) | 36(15.3%) | 74(31.5%) | 84(35.7%) |

GUMS: Guilan University of Medical Sciences

Table 3. The Correlation between Physicians’ Gender and Degree with Environmental & Psychical Support Scores

|                  | Gender | Number | X ± SD       | Degree | Number | X ± SD       |
|------------------|--------|--------|--------------|--------|--------|--------------|
| Environmental Support Score | Male | 124    | 28.74±5.76   | Specialist | 97    | 30.82±4.79   |
|                   | Female | 111    | 31.99±4.06   | Resident | 138   | 29.89±5.58   |
| Psychical Support Score | Male | 124    | 35.25±4.11   | Specialist | 97    | 37.60±4.027  |
|                   | Female | 111    | 37.20±3.51   | Resident | 138   | 35.17±3.59   |

A significant difference was found regarding gender and environmental support score (P = 0.005). Moreover, a positive correlation was found between degree and psychical support score (P = 0.001).

Limitation
This study lacked information on patients’ satisfaction with the current approaches. Also, as this was not an objective study, it only showed physicians’ point of view; however, they do not necessarily act as they believe. Furthermore, in this study, only academic hospitals were evaluated and physicians’ performance in private wards was not investigated.

Conclusion
Because of limited experience, the majority of faculty and residents of GUMS are faced by several difficulties and fears when breaking bad news to patients or families. The present study strongly highlighted the need for more practical interventions to improve this essential skill. Also, further well-planned studies are required to find all deficiencies in this area.

Acknowledgment
We gratefully acknowledge the valuable contribution of faculty and residents of Guilan University of Medical Sciences in completing the survey. We also appreciate Ms Jalile Massomi for editing this article.

Conflict of Interest
None.

References
1. Buckman RJBmj. Breaking bad news: why is it still so difficult? Br Med J (Clin Res Ed). 1984 May 26;288(6430):1597-9.
Biazar, Delpasand, Farzi, et al.

2. Munoz Sastre MT, Sorum PC, Mullet EJHc. Breaking bad news: the patient’s viewpoint. Health Commun. 2011;26(7):649-655.

3. Ford S1, Fallowfield L, Lewis S. Can oncologists detect distress in their out-patients and how satisfied are they with their performance during bad news consultations? Br J Cancer. 1994 Oct;70(4):767-70.

4. Abazari P, Taleghani F, Hematti S, Malekian A, Hakimian SMR, Ehsani M. Breaking bad news protocol for cancer disclosure: an Iranian version. J Med Ethics Hist Med. 2017;10:13.

5. Gorniewicz J, Floyd M, Krishnan K, Bishop TW, Tudiver F, Lang FJPe, et al. Breaking bad news to patients with cancer: a randomized control trial of a brief communication skills training module incorporating the stories and preferences of actual patients. Patient Educ Couns. 2017;100(4):655-666.

6. Motlagh A, Yaraei N, Mafi AR, Hosseini Kamal F, Yaseri M, Hemati S et al. Attitude of cancer patients toward diagnosis disclosure and their preference for clinical decision-making: a national survey. Arch Iran Med. 2014;17(4):232-40.

7. Rozveh AK, Amjad RN, Rozveh JK, Rasouli DJiljih-o, research sc. Attitudes toward telling the truth to cancer patients in Iran: a review article. Int J Hematol Oncol Stem Cell Res. 2017;11(3):178-184.

8. Goebel S, Mehdorn HMJWn. Breaking Bad News to Patients with Intracranial Tumors: The Patients’ Perspective. World Neurosurg. 2018;118:e254-e262.

9. Hafidz MIA, Zainudin LDJM JM. Breaking Bad News: An essential skill for doctors. Med J Malaysia. 2016;71(1):26-7.

10. Bousquet G, Orri M, Winterman S, Brugiére C, Verneuil R, Revah-Levy A. Breaking bad news in oncology: a metanalysis. J Clin Oncol. 2015;33(22):2437-43.

11. Rising MLJJoTN. Truth telling as an element of culturally competent care at end of life. J Transcult Nurs. 2017;28(1):48-55.

12. Monden KR, Gentry L, Cox TR, editors. Delivering bad news to patients. Baylor University Medical Center Proceedings: Taylor & Francis; 2016.

13. Craxi L, Di Marco V. Breaking bad news: How to cope. Digestive and Liver Disease. 2018.

14. C Cardona M, Kellett J, Lewis E, Brabrand M, NI Chrdnin D. Truth disclosure on prognosis: Is it ethical not to communicate personalised risk of death? Int J Clin Pract. 2018:e13222.

15. de Zulueta P. Truth, trust and the doctor–patient relationship. Primary Care Ethics: CRC Press; 2018. p. 1-24.

16. Xue D, Wheeler JL, Abernethy AP. Cultural differences in truth-telling to cancer patients: Chinese and American approaches to the disclosure of ‘bad news’. Progress in Palliative Care. 2011;19(3):125-31.

17. Marschollek P, Bjkowska K, Bjkowski 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(2):375-80.

18. Scheidt CE, Wunsch A, Afshar H, Goli F, Malekian A, Sharbaefchi MR, et al. Breaking Bad News: Different Approaches in Different Countries of Iran and Germany–an Expert Panel. International Journal of Body, Mind and Culture. 2017;4(2):108-14.

19. Seifart C, Hofmann M, Bär T, Riera Knoorreschild J, Seifart U, Rief W. Breaking bad news—what patients want and what they get: evaluating the SPIKES protocol in Germany. Ann Oncol. 2014;25(3):707-11.

20. Ghafari NA, Salari P, Mirzazadeh A. Study on breaking bad news to patients among physicians of kerman university of medical sciences [In Persian]. Medical Journal of hormozgan university. 2006;10(2).

21. Hofmann M, Seifart U, Rief WJP. Assessing patient’s preferences for Breaking Bad News: development of the MABBNs. Psychooncology. 2013.

22. Aein F, Delaram M. Giving bad news: a qualitative research exploration. Iran Red Crescent Med J. 2014;16(6):e8197.

23. Arbabi M, Roodzar A, Taher M, Shirzad S, Arjmand M, Mohammadi MR, et al. How to break bad news: physicians’ and nurses’ attitudes. Iranian J of psychiatry. 2010;5(4):128-33.

24. Jalali M, Nasiri A, Abedi HJJoME, Medicine Ho. Patients and family members’ experiences regarding receiving bad news from health providers [In Persian]. Medical Ethics and History of Medicine. 2015;7(5):83-93.

25. B Brown VA, Parker PA, Furber L, Thomas AL. Patient preferences for the delivery of bad news—the experience of a UK Cancer Centre. Eur J Cancer Care (Engl). 2011;20(1):56-61.

26. Saberi A, Nemati S, Fakhrieh Asl S, Heydarzadeh A, Fahimi A. Education of medical professionalism and the role of educators of Guilan University of Medical Sciences, Iran, according to its residents. Strides in Development of Medical Education. 2013;10(2):218-24.