

# Perception Toward Breaking Bad News (BBN) among Primary Health Care Physician, Ministry of Health (MOH) in Al-Ahsa, 2023

## Abstract

**Objective:** The current study aimed to assess the applying process of Breaking Bad News among Primary healthcare physicians, Ministry of Health in Al-Ahsa.

**Methods:** An analytical cross-sectional study was conducted targeting all physicians of Primary health care, (PHC) in Ministry of health, (MOH) in Al-Ahsa. The study questionnaire divided into three sections that will include personal data without the name in the first section: Demographic data. The second section will be related to breaking bad news. Lasts section covered barriers against applying breaking bad news and perceived diseases which need BBN. The final questionnaire was sent to the available physicians to be filled and assured lack of missing data after conforming accuracy and data validity.

**Results:** A total of 265 eligible PHC physicians were included. Participants ages ranged from 20 to 55 years with a mean age of  $28.9 \pm 11.7$  years old. As for job title, 104 (39.2%) were GPs, 81 (30.6%) were residents, 25 (9.4%) were specialists and 55 (20.8%) were consultants. Exact of 213 (80.4%) of the study physicians were trained for Breaking Bad News and 152 (57.4%) of the study physicians feel confident in discussing with patients and their relatives about prognosis and life expectancy. A total of 58.1% agreed that they have to tell the patient everything about the disease, but 47.9% think telling patients everything will take their hope. Also, 38.5% feel depressed after breaking bad news to patients or relatives, 33.2% feel anxious when delivering bad news.

**Conclusion:** The study found that while most physicians were trained about BBN, they lacked knowledge and support to apply due to various factors, despite high psychological burdens, and rated their abilities as good.

## Keywords

Breaking bad news, physicians, perception, knowledge, practice, limitations, Saudi Arabia

## **Introduction**

Delivering patients or their families the terrible news regarding significant diseases or findings is known as "breaking bad news (BBN)." (1) The phrase "bad news" refers to any information shared with patients or their families regarding illnesses or adverse, serious harm that has the potential to alter their current or future outlook on life. (1,2) Fear of managing the patient's emotions or fury, or fear of being held accountable by the patient or family, are just a few of the difficulties that doctors have while breaking terrible news to their patients. (3, 4) Every response would come as a surprise. Breaking bad news is therefore difficult and uncomfortable. The goal of delivering terrible news to a patient is to do it in a way that is appropriate and professional in order to gain the patient's trust, ease the process of getting the news, and reassure them that they should not develop any psychiatric illnesses. (5, 6) Patients must be informed of the entire situation by physicians. necessary to describe the prognosis, course of treatment, and diagnosis. (7)

For doctors, breaking bad news to patients or family members is a necessary and mandatory aspect of their work. (8) Informing people who have recently been diagnosed with cancer or who have relatives who have the disease is a challenging and demanding undertaking. (9) The majority of clinicians lack prior expertise discussing mortality or conditions associated to death with patients. (11) Should it be carried out without empathy or

understanding, it will not be forgiven. If done correctly, though, sufferers could feel a little less hopeless.

For both doctors and patients, breaking bad news is a difficult time. Effective communication between healthcare practitioners can enhance patient acceptance and increase adherence to therapy and follow-up. (12) Universities and other institutions have worked very hard over the past few years to alter the prevailing circumstances. Doctors can advance their skills and knowledge in this difficult field with the support of a variety of printed materials, forums, and courses. In the medical field, it is imperative that doctors understand this procedure and the requirements associated with each stage of breaking bad news. (13, 14)

When conveying bad news, there are certain rules that need to be followed termed SPIKES. It is, nevertheless, highly significant and skill-intensive. (15) In order to make breaking bad news less distressing, it is necessary to direct the process methodically. One protocol that has six communication phases is the SPIKES protocol. (16) The initial phase "S," Configuring Setting up, or the initial phase, is about getting the medical environment ready. It is ideal for such news to be announced in a quiet, dignified, and friendly setting. Now is the ideal time to establish a positive doctor-patient rapport. By asking open-ended inquiries, the second phase, "P," or perception, provides the chance to find out what the patient is aware of regarding their illness or condition. The third step "I", invitation, is the moment to analyze how much the patient wants to know, and whether he or she has any doubts to be clarified. The fourth step "K", knowledge, is the time when everything about the diagnosis will be announced. (15, 16) The fourth step "K", knowledge, is the time when everything about the diagnosis will be announced. At this moment, it is important to use

simple words, without technical terms, in order to transmit the information. It is recommended that the matter should be introduced with some phrases that indicate that bad news will be transmitted. The fifth step “E”, emotions, is the time to express empathy, identify the patients’ emotions and give support. The last but not least important step “S”, strategy and summary, is the time to suggest what the treatment should be, and what the prognosis is, and also to summarize everything that has been said, in order to check that patient has understood it. (17-19) The present study was conducted to evaluate how much doctors apply full strategies and guidelines of breaking bad news. Physicians generally have poor communication skills although they face challenges dealing with angry patients or relatives.

## **Methodology**

An analytical cross-sectional study was conducted targeting all physicians of Primary health care, (PHC) in Ministry of health, (MOH) in Al-Ahsa during the period from ..... to ..... GPs, Residents, Specialists and Consultants were included while other specialties (dentists and pharmacists) were excluded. All accessible and available physicians were invited to participate in the study after having an oral consent. Data were collected using self-administered questionnaire that was initiated by the study researchers after intensive literature review and study filed expert's consultation. A panel of 3 filed experts reviewed the questionnaire items independently and all modifications were added after consensus to assess the questionnaire content validity. A pilot study of 25 physician was conducted to assess the questionnaire reliability with an estimated  $\alpha$ -Cronbach's of 0.78 then, pilot sample were excluded from the final study sample. The questionnaire divided into three sections that will include personal data without the name in the first

section: Demographic data. The second section will be related to breaking bad news. Lasts section covered barriers against applying breaking bad news and perceived diseases which need BBN. The final questionnaire was sent to the available physicians to be filled and assured lack of missing data after conforming accuracy and data validity.

### **Data analysis**

The data were collected, reviewed, and then fed to Statistical Package for Social Sciences version 26 (Released 2019. Armonk, NY: IBM Corp). All statistical methods used were two-tailed with an alpha level of 0.05 considering significance if P value less than or equal to 0.05. Descriptive analysis for categorical data was done using frequencies and percentages, whereas numerical data were presented as mean with standard deviation. Also, participants preparedness, and practice regarding BBN, their perception and attitude were tabulated. Study physicians reported limitations to tell patients about disease (BBN) and the perceived diseases need BBN were graphed. Cross tabulation for showing all relations with physicians perception towards BBN was done using Pearson Chi-Square test and exact probability test for small frequency distributions.

### **Results**

A total of 265 eligible PHC physicians were included. Participants ages ranged from 20 to 55 years with a mean age of  $28.9 \pm 11.7$  years old. Exact of 218 (82.3%) were males, 153 (57.7%) were married and 85 (32.1%) were single. As for job title, 104 (39.2%) were GPs, 81 (30.6%) were residents, 25 (9.4%) were specialists and 55 (20.8%) were consultants. Considering experience years, 172 (64.9%) had experience for 1 to 5 years while 62

(23.4%) had experience for more than 10 years. Exact of 78 (29.4%) worked at southern sector, 54 (20.4%) worked at eastern sector and 94 (35.5%) were trainee. Considering smoking, 152 (57.4%) were non-smokers and 93 (35.1%) were current smokers (Table 1).

Table 2. Breaking bad news preparedness and practice among primary health care physicians. Exact of 213 (80.4%) of the study physicians were trained for Breaking Bad News and 152 (57.4%) of the study physicians feel confident in discussing with patients and their relatives about prognosis and life expectancy. Exact of 121 (45.7%) of the study participants reported that both patients and family should receive bad news while 56 (21.1%) told that only patients who should receive. As for frequency of break bad news to patient per month, 204 (77%) reported for less than 5 times 48 (18.1%) 5-10 times and 13 (4.9%) did for more than 10 times. A total of 219 (82.6%) of the participants know what SPIKES protocol is, among whom, 135 (61.6%) think it sometimes increase the acceptance and the understanding of the disease to the patient but 73 (33.3%) confirmed that.

As for perception towards breaking bad news among primary health care physicians (Table 3), 58.1% agreed that they have to tell the patient everything about the disease, but 47.9% think telling patients everything will take their hope. Also, 38.5% feel depressed after breaking bad news to patients or relatives, 33.2% feel anxious when delivering bad news, 24.9% find it difficult to get BBN training and 21.9% give false hopes to terminal patients.

Figure 1. Reported limitations prevent PHC physicians from applying breaking bad news. The most reported limitations included fear of being unable to give proper support (62.3%), Not prepared (Time / setting) (60.8%), Not trained (47.9%), Fear of patient/relevant reaction (47.5%), Patient waiting list/numbers (43%), and Lack of knowledge to answer patient/relevant questions (39.6%).

Figure 2. Diseases need breaking bad news as reported by the study PHC physicians. The most reported diseases were HIV (88.7%), cancer (79.2%), infertility (75.5%), pregnancy loss (73.6%), viral hepatitis (68.3%), MI (67.9%), and CKD (63%). The least reported diseases included thyroid dysfunction (35.5%), dyslipidaemia (26%), and osteoarthritis (13.6%).

Table 4. Distribution of physicians' perception towards BBN by their gender. Less liability to tell patients with higher perception that telling patients everything will take their hope and, more depression, anxiety and higher liability to tell false hopes were all reported more among male physicians in contrast to females who showed more preparedness to tell the patient everything about the disease. Only, females find more difficulty to get BBN training ( $P < 0.05$  for all).

Table 5. Distribution of physicians' perception towards BBN by their job title. Consultant showed the least perception and preparedness to tell patients about the disease, with higher depression, anxiety and more readiness to tell false hope than specialists and residents who were the readiest category.

Table 6. Distribution of physicians' perception towards BBN by their patients' discussion preparedness. Physicians who showed confidence had higher perception and preparedness to tell patients about the disease with less depression, and anxiety. Also, ready to give false hope did not find it difficult to get BBN training.

Table 7. Distribution of physicians' perception towards BBN by training for Breaking Bad News. Also, trained physicians who showed confidence had higher perception and

preparedness to tell patients about the disease with less depression, and anxiety. Also, ready to give false hope did not find it difficult to get BBN training.

## **Discussion**

The current study aimed to assess the applying process of Breaking Bad News among Primary healthcare physicians, and to assess the factors contribute practicing of Breaking Bas News, limitations and difficulties regarding applying Breaking Bad News with diseases considered to be under the aspect of Breaking Bad News in Primary Health Care centers in view of physicians. Strategies and guidelines are required to apply the breaking bad news that was previously explained in order to develop fully effective communication skills, lessen the psychological impact on the patient, and lower the rate of psychiatric disorders, which will raise the rate of morbidity and mortality while improving quality of life. (20, 21)

The current study revealed that most of the study respondents were residents or GPs with 1 to 5 experience years. With regard to breaking bad new preparedness and practice, the study showed that more than half of them feel confident in discussing with patients and their relatives about prognosis and life expectancy as more than three-fourths were trained for BBN. The frequency times of BBN was less than 5 times a month among most physicians. This high confidence and training level were in contrast to what reported by Ammentorp J et al. (22) where the majority (65%) of the residents were not confident when breaking bad news, as the study showed a massive gap in the training of paediatric residents who had no exposure in the form of communication skills training. Konstantis A et al. (23) documented that almost two-thirds of physicians reported feeling unconfident and unfamiliar with breaking bad news structures. Another study in Greece revealed that most

of doctors had not received specific training in breaking bad news. (24) Likewise, in UK, most consultants have not received formal training which is similar to the current study findings. (25)

The study also revealed that the vast majority of the physicians know about SPIKES protocol and nearly all of them think that increases the acceptance and the understanding of the disease to the patient. This was similar to what reported by Alnefaie S et al. (26) as about two-thirds knew the SPIKES protocol when breaking the bad news. They found the need to update in communication skills due to the lack of good communication skills in breaking bad news. SPIKES Protocol is a standard pattern for breaking unpleasant news. Furthermore, this is a duty that frequently needs to be completed under less than ideal circumstances and in the midst of a hectic clinical environment. (27-29) While there is no set protocol for all communications requiring the delivery of bad news, the SPIKES protocol's considerations can be useful. (30) This structured method serves as a useful guide for many NPs when striking up these challenging discussions. Physician studies from South Korea, Canada, and most less developed nations, such as Iran, Turkey, India, and Pakistan, revealed lower-than-desired levels of training for SPIKES protocol. (31-34) In one Korean study from 2013, 80% of trainees adhered to the protocol, while in another, not a single participating physician was aware of any protocol (32, 35).

With regard to perception of BBN, the current study revealed that more than half agreed that they have to tell the patient everything about the disease, but about half of them think telling patients everything will take their hope. Also, more than one-third feel depressed and anxious after breaking bad news to patients or relatives. Only one-fourth find it difficult to get BBN training and about 20% give false hopes to terminal patients. This reflects high

perception about BBN and their role but they experience some psychological disturbance. Similarly, a study in Saudi Arabia revealed that most physicians believe that BBN is important in PHC despite a deficiency in knowledge. (26) Another study in Al-Quassim revealed that more than 90% have no problem in delivering bad news to the patients, however, PHC physicians were less reserved. Most of the participating physicians wanted to help their patients, but they lacked the essential knowledge and skills to break bad news. (36) At Brazil, Ferreira da Silveira et al. (37) reported for high perception towards BBN among physicians where A study most of them did not have problems with the concept of bad news.

The most reported limitations for applying BBN were fear of being unable to give proper support, being not prepared and not trained, fear of patient/relevant reaction, and Lack of knowledge to answer patient/relevant questions. All reflect the urgent need for training and improving knowledge with provided psychological support for both patients and physicians through a well-designed program.

### **Conclusions and recommendations**

In conclusion, the current study revealed that most of the study physicians were trained about BBN but lack knowledge and support to apply due to many factors. Also, most of them mainly residents showed high tendency for applying BBN with high perception about its importance in spite of experienced high psychological burden. Also, most of the physicians were aware of the protocol and rate their ability as good. Doctors should sit, explain everything in detail—including the prognosis—in a comfortable setting before outlining treatment approaches with compassion and without regard for the socioeconomic or educational backgrounds of their patients. Both fellowship programs and undergraduate

medical schools should be structured to teach students about appropriate communication from an early age and to integrate SPIKES into their coursework. As part of a regular teaching process, practical demonstrations and other skill-building exercises should be included. Strict follow-up plans and frequent reports ought to be given as required. Teachers, curriculum designers, and accrediting agencies should all implement this.

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**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

Table 1. Personal characteristics of study primary health care physicians, Al-Ahsa, Saudi Arabia (n=265)

| <b>Personal data</b>      | <b>No</b> | <b>%</b> |
|---------------------------|-----------|----------|
| <b>Age in years</b>       |           |          |
| < 25                      | 46        | 17.4%    |
| 25-35                     | 157       | 59.2%    |
| 36-45                     | 34        | 12.8%    |
| 46-55                     | 28        | 10.6%    |
| <b>Gender</b>             |           |          |
| Male                      | 218       | 82.3%    |
| Female                    | 47        | 17.7%    |
| <b>Marital status</b>     |           |          |
| Single                    | 85        | 32.1%    |
| Married                   | 153       | 57.7%    |
| Divorced / widow          | 27        | 10.2%    |
| <b>Job tile</b>           |           |          |
| Consultant                | 55        | 20.8%    |
| Specialist                | 25        | 9.4%     |
| Resident (Trainee)        | 81        | 30.6%    |
| General Practitioner (GP) | 104       | 39.2%    |
| <b>Experience years</b>   |           |          |
| 1-5 years                 | 172       | 64.9%    |
| 5-10 years                | 31        | 11.7%    |
| > 10 years                | 62        | 23.4%    |
| <b>Work sector</b>        |           |          |
| Eastern sector            | 54        | 20.4%    |

|                        |     |       |
|------------------------|-----|-------|
| <i>Northern sector</i> | 32  | 12.1% |
| <i>Southern sector</i> | 78  | 29.4% |
| <i>Trainee</i>         | 94  | 35.5% |
| <i>Western sector</i>  | 7   | 2.6%  |
| <b>Smoking</b>         |     |       |
| <i>None-smoker</i>     | 152 | 57.4% |
| <i>Former smoker</i>   | 20  | 7.5%  |
| <i>Current smoker</i>  | 93  | 35.1% |

Table 2. Breaking bad new preparedness and practice among primary health care physicians, Al-Ahsa, Saudi Arabia (n=265)

| <b>BBN preparedness and practice</b>   | <b>No</b> | <b>%</b> |
|--|-----------|----------|
| <b>Do you feel confident in discussing with patients and their relatives about prognosis and life expectancy</b> |           |          |
| <i>Yes</i>   | 152       | 57.4%    |
| <i>No</i>  | 74        | 27.9%    |
| <i>Not sure</i>  | 39        | 14.7%    |
| <b>Have you been trained for Breaking Bad News</b>   |           |          |
| <i>Yes</i>   | 213       | 80.4%    |
| <i>No</i>  | 52        | 19.6%    |
| <b>Who should receive bad news</b>   |           |          |
| <i>Patient</i>   | 56        | 21.1%    |
| <i>Family</i>  | 88        | 33.2%    |
| <i>Both</i>  | 121       | 45.7%    |
| <b>In average a month, how many times do you break bad news to patient</b>                                       |           |          |
| <i>&lt; 5 times</i>  | 204       | 77.0%    |
| <i>5-10 times</i>  | 48        | 18.1%    |
| <i>&gt; 10 times</i>   | 13        | 4.9%     |
| <b>Do you know what SPIKES protocol is?</b>  |           |          |
| <i>Yes</i>   | 219       | 82.6%    |
| <i>No</i>  | 46        | 17.4%    |
| <b>Dose SPIKES protocol increase the acceptance and the understanding of the disease to the patient (n=219)</b>  |           |          |

|                  |     |       |
|------------------|-----|-------|
| <i>Always</i>    | 73  | 33.3% |
| <i>Sometimes</i> | 135 | 61.6% |
| <i>Rarely</i>    | 11  | 5.0%  |

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Table 3. Perception towards breaking bad news among primary health care physicians, Al-Ahsa, Saudi Arabia (n=265)

| Perception and attitude  | Yes |       | No  |       | Not sure |       |
|--|-----|-------|-----|-------|----------|-------|
|  | No  | %     | No  | %     | No       | %     |
| Do you have to tell the patient everything about the disease           | 154 | 58.1% | 64  | 24.2% | 47       | 17.7% |
| Do you think telling patients everything will take their hope          | 127 | 47.9% | 78  | 29.4% | 60       | 22.6% |
| Do you feel depressed after breaking bad news to patients or relatives | 102 | 38.5% | 77  | 29.1% | 86       | 32.5% |
| Do you give false hopes to terminal patients                           | 58  | 21.9% | 174 | 65.7% | 33       | 12.5% |
| Do you feel anxious when delivering bad news                           | 88  | 33.2% | 104 | 39.2% | 73       | 27.5% |
| Do you find it difficult to get BBN training                           | 66  | 24.9% | 145 | 54.7% | 54       | 20.4% |

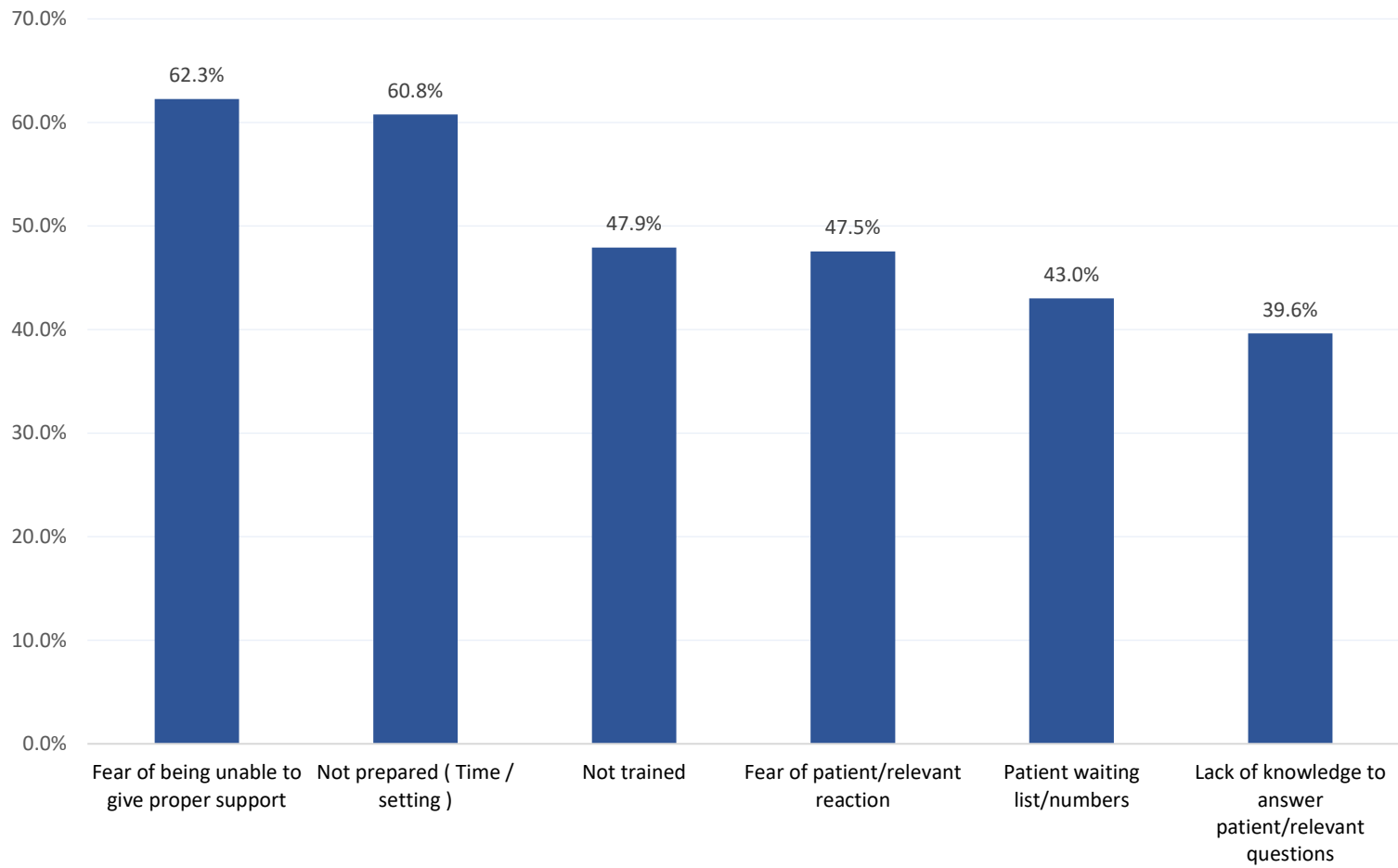


Figure 1. Reported limitations prevent PHC physicians from applying breaking bad news, Al-Ahsa, Saudi Arabia

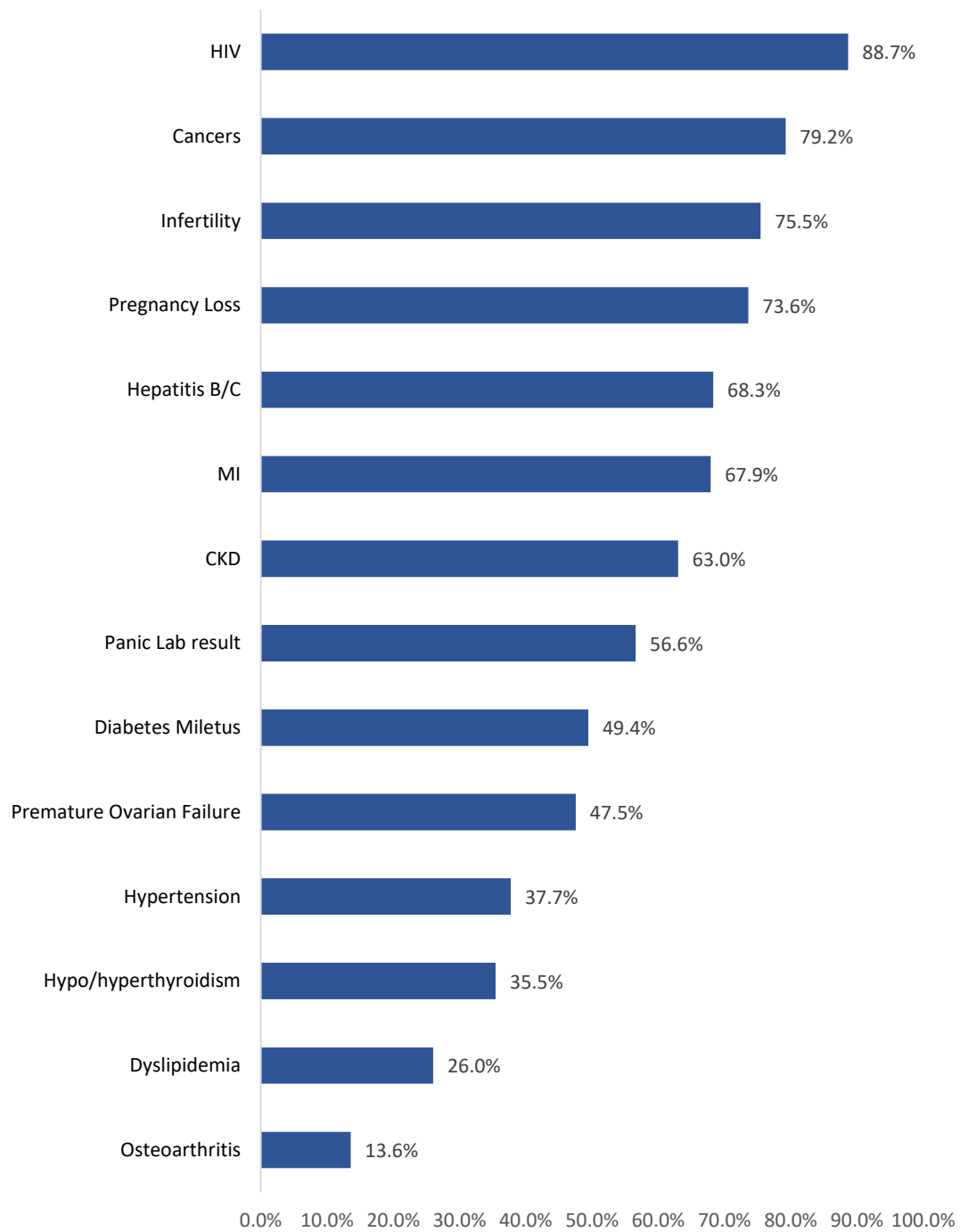


Figure 2. Diseases need breaking bad news as reported by the study PHC physicians

Table 4. Distribution of physicians' perception towards BBN by their gender

| Perception  | Gender |       |        |       | p-value |
|---|--------|-------|--------|-------|---------|
|   | Male   |       | Female |       |         |
|   | No     | %     | No     | %     |         |
| <b>Do you have to tell the patient everything about the disease</b>           |        |       |        |       |         |
| Yes   | 121    | 55.5% | 33     | 70.2% | .002*   |
| No  | 50     | 22.9% | 14     | 29.8% |         |
| Not sure  | 47     | 21.6% | 0      | 0.0%  |         |
| <b>Do you think telling patients everything will take their hope</b>          |        |       |        |       |         |
| Yes   | 114    | 52.3% | 13     | 27.7% | .001*   |
| No  | 65     | 29.8% | 13     | 27.7% |         |
| Not sure  | 39     | 17.9% | 21     | 44.7% |         |
| <b>Do you feel depressed after breaking bad news to patients or relatives</b> |        |       |        |       |         |
| Yes   | 95     | 43.6% | 7      | 14.9% | .001*   |
| No  | 64     | 29.4% | 13     | 27.7% |         |
| Not sure  | 59     | 27.1% | 27     | 57.4% |         |
| <b>Do you give false hopes to terminal patients</b>                           |        |       |        |       |         |
| Yes   | 51     | 23.4% | 7      | 14.9% | .421    |
| No  | 141    | 64.7% | 33     | 70.2% |         |
| Not sure  | 26     | 11.9% | 7      | 14.9% |         |
| <b>Do you feel anxious when delivering bad news</b>                           |        |       |        |       |         |
| Yes   | 81     | 37.2% | 7      | 14.9% | .005*   |
| No  | 77     | 35.3% | 27     | 57.4% |         |
| Not sure  | 60     | 27.5% | 13     | 27.7% |         |
| <b>Do you find it difficult to get BBN training</b>                           |        |       |        |       |         |
| Yes   | 52     | 23.9% | 14     | 29.8% | .001*^  |
| No  | 112    | 51.4% | 33     | 70.2% |         |
| Not sure  | 54     | 24.8% | 0      | 0.0%  |         |

P: Pearson  $X^2$  test

^: Exact probability test

\*  $P < 0.05$  (significant)

Table 5. Distribution of physicians' perception towards BBN by their job title

| Perception  | Job title  |       |                    |       |            |       | p-value |
|---|------------|-------|--------------------|-------|------------|-------|---------|
|   | Consultant |       | Resident (Trainee) |       | Specialist |       |         |
|   | No         | %     | No                 | %     | No         | %     |         |
| <b>Do you have to tell the patient everything about the disease</b>           |            |       |                    |       |            |       |         |
| Yes   | 28         | 50.9% | 112                | 60.5% | 14         | 56.0% | .001*   |
| No  | 27         | 49.1% | 26                 | 14.1% | 11         | 44.0% |         |
| Not sure  | 0          | 0.0%  | 47                 | 25.4% | 0          | 0.0%  |         |
| <b>Do you think telling patients everything will take their hope</b>          |            |       |                    |       |            |       |         |
| Yes   | 41         | 74.5% | 86                 | 46.5% | 0          | 0.0%  | .001*   |
| No  | 0          | 0.0%  | 60                 | 32.4% | 18         | 72.0% |         |
| Not sure  | 14         | 25.5% | 39                 | 21.1% | 7          | 28.0% |         |
| <b>Do you feel depressed after breaking bad news to patients or relatives</b> |            |       |                    |       |            |       |         |
| Yes   | 27         | 49.1% | 68                 | 36.8% | 7          | 28.0% | .193    |
| No  | 14         | 25.5% | 52                 | 28.1% | 11         | 44.0% |         |
| Not sure  | 14         | 25.5% | 65                 | 35.1% | 7          | 28.0% |         |
| <b>Do you give false hopes to terminal patients</b>                           |            |       |                    |       |            |       |         |
| Yes   | 34         | 61.8% | 13                 | 7.0%  | 11         | 44.0% | .001*^  |
| No  | 14         | 25.5% | 146                | 78.9% | 14         | 56.0% |         |
| Not sure  | 7          | 12.7% | 26                 | 14.1% | 0          | 0.0%  |         |
| <b>Do you feel anxious when delivering bad news</b>                           |            |       |                    |       |            |       |         |
| Yes   | 14         | 25.5% | 60                 | 32.4% | 14         | 56.0% | .001*^  |
| No  | 41         | 74.5% | 52                 | 28.1% | 11         | 44.0% |         |
| Not sure  | 0          | 0.0%  | 73                 | 39.5% | 0          | 0.0%  |         |
| <b>Do you find it difficult to get BBN training</b>                           |            |       |                    |       |            |       |         |
| Yes   | 14         | 25.5% | 52                 | 28.1% | 0          | 0.0%  | .001*^  |
| No  | 41         | 74.5% | 86                 | 46.5% | 18         | 72.0% |         |
| Not sure  | 0          | 0.0%  | 47                 | 25.4% | 7          | 28.0% |         |

*P*: Pearson  $X^2$  test

^: Exact probability test

\*  $P < 0.05$  (significant)

Table 6. Distribution of physicians' perception towards BBN by their patients' discussion preparedness

| Perception  | Feel confident in discussing with patients and their relatives about prognosis and life expectancy |       |    |       |          |        | P-value |
|---|--|-------|----|-------|----------|--------|---------|
|   | Yes  |       | No |       | Not sure |        |         |
|   | No   | %     | No | %     | No       | %      |         |
| <b>Do you have to tell the patient everything about the disease</b>           |  |       |    |       |          |        |         |
| Yes   | 106  | 69.7% | 35 | 47.3% | 13       | 33.3%  | .001*   |
| No  | 25   | 16.4% | 26 | 35.1% | 13       | 33.3%  |         |
| Not sure  | 21   | 13.8% | 13 | 17.6% | 13       | 33.3%  |         |
| <b>Do you think telling patients everything will take their hope</b>          |  |       |    |       |          |        |         |
| Yes   | 53   | 34.9% | 61 | 82.4% | 13       | 33.3%  | .001*   |
| No  | 65   | 42.8% | 13 | 17.6% | 0        | 0.0%   |         |
| Not sure  | 34   | 22.4% | 0  | 0.0%  | 26       | 66.7%  |         |
| <b>Do you feel depressed after breaking bad news to patients or relatives</b> |  |       |    |       |          |        |         |
| Yes   | 28   | 18.4% | 61 | 82.4% | 13       | 33.3%  | .001*   |
| No  | 51   | 33.6% | 0  | 0.0%  | 26       | 66.7%  |         |
| Not sure  | 73   | 48.0% | 13 | 17.6% | 0        | 0.0%   |         |
| <b>Do you give false hopes to terminal patients</b>                           |  |       |    |       |          |        |         |
| Yes   | 31   | 20.4% | 27 | 36.5% | 0        | 0.0%   | .001*^  |
| No  | 101  | 66.4% | 34 | 45.9% | 39       | 100.0% |         |
| Not sure  | 20   | 13.2% | 13 | 17.6% | 0        | 0.0%   |         |
| <b>Do you feel anxious when delivering bad news</b>                           |  |       |    |       |          |        |         |
| Yes   | 27   | 17.8% | 61 | 82.4% | 0        | 0.0%   | .001*^  |
| No  | 91   | 59.9% | 13 | 17.6% | 0        | 0.0%   |         |
| Not sure  | 34   | 22.4% | 0  | 0.0%  | 39       | 100.0% |         |
| <b>Do you find it difficult to get BBN training</b>                           |  |       |    |       |          |        |         |
| Yes   | 14   | 9.2%  | 39 | 52.7% | 13       | 33.3%  | .001*^  |
| No  | 84   | 55.3% | 35 | 47.3% | 26       | 66.7%  |         |
| Not sure  | 54   | 35.5% | 0  | 0.0%  | 0        | 0.0%   |         |

*P*: Pearson  $X^2$  test

^: Exact probability test

\*  $P < 0.05$  (significant)

Table 7. Distribution of physicians' perception towards BBN by training for Breaking Bad News

| Perception  | Have you been trained for Breaking Bad News |       |    |       | p-value |
|---|---|-------|----|-------|---------|
|   | Yes   |       | No |       |         |
|   | No  | %     | No | %     |         |
| <b>Do you have to tell the patient everything about the disease</b>           |   |       |    |       |         |
| Yes   | 128   | 60.1% | 26 | 50.0% | .262    |
| No  | 51  | 23.9% | 13 | 25.0% |         |
| Not sure  | 34  | 16.0% | 13 | 25.0% |         |
| <b>Do you think telling patients everything will take their hope</b>          |   |       |    |       |         |
| Yes   | 88  | 41.3% | 39 | 75.0% | .001*   |
| No  | 65  | 30.5% | 13 | 25.0% |         |
| Not sure  | 60  | 28.2% | 0  | 0.0%  |         |
| <b>Do you feel depressed after breaking bad news to patients or relatives</b> |   |       |    |       |         |
| Yes   | 63  | 29.6% | 39 | 75.0% | .001*   |
| No  | 77  | 36.2% | 0  | 0.0%  |         |
| Not sure  | 73  | 34.3% | 13 | 25.0% |         |
| <b>Do you give false hopes to terminal patients</b>                           |   |       |    |       |         |
| Yes   | 45  | 21.1% | 13 | 25.0% | .004*   |
| No  | 148   | 69.5% | 26 | 50.0% |         |
| Not sure  | 20  | 9.4%  | 13 | 25.0% |         |
| <b>Do you feel anxious when delivering bad news</b>                           |   |       |    |       |         |
| Yes   | 49  | 23.0% | 39 | 75.0% | .005*^  |
| No  | 104   | 48.8% | 0  | 0.0%  |         |
| Not sure  | 60  | 28.2% | 13 | 25.0% |         |
| <b>Do you find it difficult to get BBN training</b>                           |   |       |    |       |         |
| Yes   | 27  | 12.7% | 39 | 75.0% | .001*^  |
| No  | 132   | 62.0% | 13 | 25.0% |         |
| Not sure  | 54  | 25.4% | 0  | 0.0%  |         |

P: Pearson  $X^2$  test

^: Exact probability test

\*  $P < 0.05$  (significant)