



**BREAKING BAD NEWS KNOWLEDGE AND ATTITUDE OF JUNIOR PHYSICIAN
PRACTICING AT TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA,
ETHIOPIA**

BY: -

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**A RESEARCH THESIS TO BE SUBMITTED TO COLLEGE OF MEDICINE AND
HEALTH SCIENCES, DEPARTMENT OF INTERNAL MEDICINE, FOR A
PARTIAL FULFILLMENT OF THE REQUIREMENT OF SPECIALIZATION
CERTIFICATE IN INTERNAL MEDICINE**

DECEMBER 2021

ADDIS ABABA ETHIOPIA

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Acknowledgment

I would like to thank AAU college of Health Sciences and the Department of Internal Medicine for giving me the chance to practice research. This would be the base and golden opportunity to start engaging in research works and it has already inspired me to be a researcher in my future career. And I also want to thank my adviser Dr. Ermias Merkebu who has given valuable comments and inputs during the development of this research proposal and final thesis. Also, would like to express my warm recognition to all participants who accepted to participate and dedicated their valuable time to fill the questionnaire.

Abbreviations and Acronym's

AAU-----Addis Ababa University

ASCO-----American Society of Oncology

BBN-----Breaking Bad News

KP-----Knowledge and Attitude

SPHMMC-----St. Paul's Hospital Millennium Medical College and Teaching Hospital

SPIKES-----Setting, Perception, Invitation, Knowledge, Emotion, Summary

TASH- -----Tikur Anbessa Specialzed Hospital

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Abstract

Introduction: Breaking bad news to patients or discussing a serious case with a patient is part of the daily activity of many healthcare professionals and it is an inevitable clinical duty. In a Medical setting bad news is any information likely to alter drastically a patient's view of his or her future perspectives and vision of life. Effective communication skills of delivering bad news are very important to develop good patient-physician relationships.

Objective; To assess the Knowledge, and Attitude of TASH Junior physicians about breaking bad news.

Methods: An institutional-based cross-sectional study at Tikur Anbessa specialized hospital, Addis Ababa Ethiopia from August to October 2021, and comprised 286 postgraduate residents of different specialties making a 98% response rate. Their knowledge and attitude were assessed by using a specifically-designed questionnaire based on SPIKES protocol. It is a six-step protocol of Setting, Perception, Invitation, Knowledge, Empathy, and Summarizing model. Data were collected through self-administered questionnaires and online surveys. The collected data were entered into Microsoft excel, then it was exported to SPSS of version 26.0 for analysis. Bivariate and multivariate analysis using logistic regression models was used to determine the association between different predictor variables with the dependent variable

Results: Among 286 respondents, 201 (70.3%) were males and 85(29.7) were females and the mean age of the participants was 29.69 years (SD±2.205) years).98.3% of participants have been involved in breaking bad news, (37.1%) admitted bad experience in breaking bad news and 87.6% did not have any specific teaching or training on BBN. The mean and median score of the participants' knowledge about breaking bad news in this study was 5.94 (SD ± 1.100) and 6 respectively. Among participants, 70.3% had good knowledge, followed by a poor knowledge (16.4%) and a Moderate level of knowledge (13.3%). From self-reported breaking bad news skills majority of participants (57.7%) of participants were only fairly satisfied with their BBN skills.

Conclusion

Most of the participating physicians didn't receive any training on BBN, a substantial number of residents didn't follow BBN protocol. Even though a majority of participants had good knowledge they had little satisfaction regarding their BBN skills

Recommendation

Education and training for trainees during their residency programs to improve their BBN skills should be considered and adoption of BBN protocol

KEY WORDS: Breaking bad news, SPIKES protocol, and TASH

INTRODUCTION

1.1 Background

Breaking bad news to patients or discussing a serious case with a patient is part of the daily activity of many healthcare professionals. Although it is common in the oncological setting, every clinical specialty delivers bad news at some stage. In a Medical setting bad news is any information likely to alter drastically a patient's view of his or her future perspectives and vision of life. How bad the news is will depend to some extent on the patients' expectations at the time, on how ill they feel, and on whether or not they already know or suspect their diagnosis or current state. Some publications have started to refer to 'significant news' but bad news remains the more common term. (1) (2)

Delivering bad news is a stressful event for both patients and health professionals. Emotional sequelae to the clinician include guilt, anger, anxiety, and exhaustion. It is therefore imperative to discover the best way of breaking bad news for patients and professionals alike. (2) (3)

The way that bad news is disclosed to a patient has a crucial impact on physician-patient cooperation and trust. Over the past 20 years, different strategies for breaking bad news have been developed to improve the communication skills of health professionals to deliver bad news. However, there are a few established recommendations such as the 6-step SPIKES, ABCED, and BROKE strategy designed. SPIKES protocol is one of the most popular and accepted worldwide, with a special application for cancer patients. These guidelines are based on expert opinion. (4) (5)

SPIKES protocol was developed by Walter Baile and colleagues in 2000 GC in response to the reported discomfort of oncology doctors in breaking bad news to their patients. Is the most commonly used and cited model in the literature that serves as a framework for communicating serious news. The acronym SPIKES refers to six steps recommended for breaking bad news: Setting up the interview, Assessing the patient's Perception, obtaining the patient's Invitation, giving Knowledge and information to the patient, addressing the patient's Emotions with empathic responses and, Strategy and Summary.. (2) (5), (6) (7)

"S", or setting up, refers to the preparation of the medical environment for the talk. Ideally, the place should be private, reserved, and welcoming. This is the right moment to build a good doctor-patient relationship.

"P", perception, is the part where health care professionals discover what the patient knows about his or her condition or disease.

"I", invitation, is the time to assess how much the patient wants to know about his /her condition

"K", knowledge, is the time when everything about the diagnosis will be announced. It should be given in clear understandable language, without technical terms. It is recommended that the matter should be introduced with some phrases that indicate that bad news will be transmitted.

"E", emotions, is the time to respond to patient emotion and express empathy, identify the patients' emotions, and give support and

"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, to check that patient has understood it (8)

SPIKES protocol was evaluated for structuring the delivery of bad news in the United States and it had reached guideline status in America and several other countries, including Germany, Canada, and the United Kingdom. It is used as a guide for this sensitive practice and communication skills training. (2) (5)

1.2 Statement of the Problem

Breaking bad news is one of health professionals' duties in day-to-day activity despite specialty, although it is common in the oncology department. It requires effective communication skills to disclose bad news as bearable as possible for patients and physicians. Effective communication can have a broad psychosocial impact on the patient and family in coping with the disease as well as a lasting effect on those involved for years afterward. (9) (10)

Improper delivery of bad news can affect the patient's comprehension of information, satisfaction with medical care level of hopefulness, and subsequent psychological adjustment. In addition, not disclosing the entire truth can inadvertently create a false sense of hope for a cure and perceptions of a longer life expectancy. In an extreme case, not delivering bad news effectively was directly linked to a patient's suicide. (11) (12). Many patients desire accurate information to assist them in making important quality-of-life decisions. (7) (12)

Different strategies have been developed over the past two decades to improve the skills of health professionals on delivering bad news, systematizing breaking bad news, and making it less traumatic. SPIKES protocol, which describes six steps of communication, is a well-known protocol. It was evaluated for structuring the delivery of bad news in the United States, Canada, Germany, the United Kingdom, and other countries (5)

In the ASCO survey 99 % of those responding found that the SPIKES protocol was practical and easy to understand, less than 10% of survey respondents had any formal training in breaking bad news and only 32% had the opportunity during training to regularly observe interviews where bad news was delivered. While 53% of respondents indicated that their ability to break bad news was good to very good, 39% thought that it was only fair, and 8% thought it was poor. (7)

The study conducted among Family physicians' on and difficulties with breaking bad

news showed 85% consider that breaking bad news is a difficult task and 78% feel they need training in breaking bad news (13)

The study conducted among Sudanese Doctors to assess their adherence to SPIKES protocol showed: about 35–79%, of Sudanese doctors, are usually adhering to the SPIKES protocol and 20–44% are adhering sometimes. While never adherence was reported in a range of zero–13.5% (14). Similarly, study done among Pakistan's post-graduate Residents to assess the practice of breaking bad shows about 47% of respondents were only fairly satisfied with their breaking bad news skill, while 65% were eager to get training in this regard (15)

On the other hand, there was a study conducted among patients to evaluate the implementation of the SPIKES protocol by healthcare professionals. A study done in Germany evaluating the SPIKES protocol among a sample of German cancer patients, by using the SPIKES protocol as a basis for questions around how news of their diagnosis was broken showed fewer than half of patients (46.2%) were satisfied with how the encounter had gone. (5) Similarly study done in Poland to assess the implementation of SPIKES protocol from patient perspective during the first disclosure of malignant neoplasm showed; patients felt that the highest compliance with the SPIKES protocol was with Setting up (70.6%), Knowledge (72.8%), and Emotions (75.3%). The lowest was with the Perception (27.7%), Invitation (30.4%), and Strategy & Summary (56.9%) part (16)

A hospital-based descriptive cross-sectional study conducted in Ethiopia at SPHMMC in 2020 with aim of Assessing SPIKES performance, patient satisfaction, patient preference, and physician awareness, attitude using structured showed Performance of SPIKES protocol was setting (74.5%), perception (51.1%), invitation (56.3%), knowledge (15.9%), emotion (22.3%) and summary (10.1%). From the patient's perspective, only 30.6% of the patients were entirely satisfied with the interaction. Patient satisfaction was associated with physicians asking how much information they like ($P=0.025$). Eighty-two percent of the physicians were not aware of the protocol, and 83.8% had no training. Half of the physicians feel depressed after disclosure. (17)

1.3 Significance of the study

Firstly, there was few studies in Ethiopia with regards to the Knowledge and Attitude of breaking bad news. Therefore, this study will help the policymakers and other responsible bodies to plan necessary training programs based on the result for health professionals which helps them to improve their knowledge and Skills regarding the problem and it will be a baseline for other researchers to do further study.

Secondly, this study will give an insight on the knowledge and attitude of delivering bad news.

2.LITERATURE REVIEW

Breaking bad news is one of the important clinical skills of health professionals. There was a Survey conducted to assess communication skills of breaking bad news at the 1998 Annual Meeting of the American Society of Clinical Oncology (ASCO) by The University of Texas MD Anderson Cancer Center, Houston, Texas. At this symposium questionnaire to assess communication skills of breaking bad news was given to 500 persons. The survey showed less than 10% of survey respondents had any formal training in breaking bad news and only 32% had the opportunity during training to regularly observe interviews where bad news was delivered. While 53% of respondents indicated that their ability to break bad news was good to very good, 39% thought that it was only fair, and 8% thought it was poor (4)

A study conducted at Children's Hospital in Los Angeles among Pediatric residents, fellows, and attendings involved in direct patient care at a major academic center revealed three-quarters of residents, 60% of fellows, and 40% of attendings graded their knowledge level as less than sufficient (<5 on a 10-point scale). Despite the low levels of sufficient knowledge, a large majority of fellows (85%) and attendings (94%) did feel sufficiently comfortable to deliver bad news. Comfort level was found to increase significantly by year of training ($p < 0.00$), self-perceived knowledge level ($p < 0.00$), and frequency of delivering bad news ($p < 0.01$). (18)

The study was conducted in Germany in 2013 on a total of 350 cancer patients to assess the implementation of the SPIKES protocol by interviewing patients. Patients were asked a questionnaire representing the six SPIKES subscales, asking for the procedure, perception, and satisfaction at the time of the first cancer disclosure. This study showed only 46.2% of the asked cancer patients are completely satisfied with how bad news had been disclosed to them. The overall quality is significantly related to the emotional state after receiving bad news ($r = -0.261$, $P < 0.001$). The low satisfaction by patients in this study reflects the highly significant difference between patients' preferences and the way bad news is delivered. (5)

Similarly, a study conducted in Poland to assess the implementation of SPIKES protocol from patient perspective during the first disclosure of malignant neoplasm reflects patients felt that the highest compliance with the SPIKES protocol was with Setting up (70.6%), Knowledge (72.8%), and Emotions (75.3%). The lowest was with the Perception (27.7%), Invitation (30.4%), and Strategy & Summary (56.9%) part (16)

A study conducted in Portugal to explore the opinion and difficulties of Portuguese family doctors on dealing with communication with patients with life-threatening diseases showed that about 85% consider that breaking bad news is a difficult task and 78% feel they need training in breaking bad news. For many doctors, the disclosure of diagnoses and prognoses has a detrimental psychological effect and affects patients' hope, but gives patients control of the situation. (19)

Delivering bad news is stressful for health professionals. Symptoms of stress, such as increased heart rate and perspiration, can occur while breaking bad news and the stress response can be sustained well past the conclusion of the encounter. Thorough preparation for intense, full-disclosure discussions may prevent negative outcomes on job performance and efficiency. (9) (12), (20) , (21)

An observational cross-sectional quantitative study was conducted in Brazil to assess doctors' capacity to break bad news, assess different specialty's communication skills of breaking bad news, and assess the importance of including this topic within undergraduate courses. This study revealed about 78%) sought a cozy private, 93.39% of the participants provided information cautiously, according to the demands of the patients and/or their relatives, and they mostly (62.29%) told the truth first to the family and then to the patient. The study also assesses their emotion during breaking bad news' felt sad (40.83%), afraid of being blamed (66.9%), and afraid of the patients' reactions (58.6%). None of the participants was aware of any instrument or protocol that could help in addressing bad news and giving it to patients. Most of them had learned by watching other specialists (42.15%). The majority of them believed that adding the subject to undergraduate courses was important (45.45%) or very important (42.15%) (22)

The result of a cross-sectional study conducted in Oman from January to July 2011 using a questionnaire administered to all practicing physicians working in both hospitals and Primary Healthcare centers in the Qassim Region revealed most physicians (more than 90%) usually do not avoid telling their patients. (23)

A cross-sectional study on the practice of BBN among Pakistan's post-graduate residents showed; 47% respondents were only fairly satisfied with their breaking bad news skills, while 65% were eager to get training in this regard and 65.9% residents were developed BBN skills by simple observation of their seniors. A total of 104 (54.2%) residents had to break bad news several times in the preceding six months and there was no difference between the residents of surgical and medical wards ($p=0.44$). The only positive association was found between gender and BBN training ($p<0.05$) (15)

A descriptive cross-sectional study done in Sudan to assess the adherence of Sudanese doctors to the SPIKES protocol in breaking bad news showed adherence to each component of SPIKES protocol: Setting (51%), Perception (63%), Invitation (37.5%), Knowledge (79.26%), Emotion (56.38%) and Summary (74.5%). (14)

A hospital-based descriptive cross-sectional study conducted in Ethiopia at SPHMMC in 2020 with aim of Assessing SPIKES performance, patient satisfaction, patient preference, and physician awareness, attitude using structured showed Performance of SPIKES protocol was setting (74.5%), perception (51.1%), invitation (56.3%), knowledge (15.9%), emotion (22.3%) and summary (10.1%). From the patient's perspective, only 30.6% of the patients were entirely satisfied with the interaction. Patient satisfaction was associated with physicians asking how much information they like ($P=0.025$). Eighty-two percent of the physicians were not aware of the protocol, and 83.8% had no training. Half of the physicians feel depressed after disclosure (17)

3. OBJECTIVE OF STUDY

3.1 Objective of the study

3.1.1 General objectives

To assess the Knowledge and Attitude of delivering bad news to patients by Tikur Anbessa
Specialized Hospital Residents

3.1.2 Specific objective

- To assess Knowledge of Residents on Breaking Bad News
- To assess Attitude of Residents on Breaking Bad News
- To assess associated factors to the level of knowledge and attitude of BBN

4.METHODS AND MATERIALS

4.1 Study area

Tikur Anbessa Specialized Hospital is located in Addis Ababa Ethiopia. Largest tertiary referral and teaching hospital in the country, containing about 700 beds. Many patients are referred to this Hospital from different parts of the country. Is also the main teaching hospital for Postgraduate training of most specialties. As of 2021 AAU college of health, sciences offers 21 Residence programs and training about 961 Residents in different specialties.

4.2 Study design

Institution-based cross-sectional study -stratified random sampling

4.3 Study period

From August to October 2021 G.C

4.4 Source population

Residents of Tikur Anbessa Specialized Hospital

4.5 Study population

Randomly selected Residents of Tikur Anbessa Specialized Hospital

4.6 The study unit

The study unit will be individual in the study population

4.7 Inclusion and exclusion criteria

4.7.1 Inclusion criteria: Resident practicing regularly at Tikur Anbessa Specialized Hospital.

4.7.2 Exclusion criteria

- Those who do not have direct contact with patients in delivering Bad News (Radiology Residents, Pathology Residents)
- Those unwilling to be involved in the study
- Those not in the Hospital during the study period due to different reasons (on detachment, on break, etc)

4.8 Sample size determination

The sample size for this study was size was 291 including 10% non- response rate and was calculated by using a formula for estimation of a single population using the result from a cross-sectional study among postgraduate Residents of tertiary care hospital of Lahore, in Pakistan. The study showed of the total, 94(47%) respondents were only fairly satisfied with their breaking bad news skills. (14)

4.8.1 Sampling Procedure

A list of residents was received from the registrar's office and Stratified Simple random method was used for each department. The questionnaire was distributed among 16 departments (Anesthesia and critical care, Dermatology, Emergency, and critical care Medicine, ENT, Family Medicine, Gynecology and Obstetrics, Internal Medicine, Neurology, Neurosurgery, Oncology, Orthopedics, Pediatric Surgery, Pediatrics, and Child Health, Psychiatry, and Urology

4.9 Data collection procedure

The questionnaire consisted of three sections. The first section was regarding personal details of the Residents including age, gender, religion, department, work experience, and year of training.

The second section assessed residents about their past experiences, adherence to protocol, opinion on BBN, opinions, and the need for a training program in breaking bad news which is composed of 15 items

The third section consisted of knowledge and attitude-related questions based on the SPIKES Protocol BBN steps. The questionnaire is developed from SPIKES Protocol with some additional questions. A focal person from the respective department was trained on the objective and methodology of the research, data collection approach. The training also dealt with the purpose of the study, confidentiality, and how to approach and forward questions

Pre-testing of the questionnaire was done in 5% of the sample size before the actual data collection take place and corrections on the instruments was be made accordingly. Data were collected by self-administered questionnaire in person and online survey.

4.10 Data quality control

The approach used to collect data was through a self-administered questionnaire and online survey. On each day the data collector thoroughly reviewed each questionnaire for its completeness and correction action was taken.

4.10 Study variables

4.10.1 Dependent variable

Knowledge and Attitude of Breaking Bad News

4.10.2 Independent variables

Socio-demographic factors

1. Age
2. Sex
3. Marital status
4. Religion
5. Specialty
6. Year of experience as a physician
7. Year of Residency/training
8. Experience of breaking bad news
9. Training on BBN
10. Adherence to BBN protocol

4.10.3 Operational definition

1. Bad News – is any information likely to alter drastically a patient's view of his or her future perspectives and vision of life.
2. Residents= A physician receiving specialized medical training
3. Junior Physicians – Residents Practicing at TASH
4. SPIKES=Acronym S-Setting P-Perception, I-Invitation, K- Knowledge, E-Emotion, Summary. Is a well-known Protocol to deliver bad news

5. **Knowledge** -categorized based on Bloom's criteria (24)

- a. Good knowledge = if the score was between 80 and 100% (6-7 correct answers out of 7 knowledge related questions)
- b. Moderate Knowledge = if the score was between 60 and 79% (5 correct answers out of 7 knowledge related questions)
- c. Poor Knowledge = if the score was less than 60% (< 5 correct answers out of 7 knowledge related questions)

6. **Attitude**

- a. Positive Attitude - if the score was 80–100% (5-6) points out of 6 attitude related questions
- b. Neutral Attitude- if the score was 60–79% (4 points out of 6 attitude related questions)
- c. Negative Attitude = if the score was less than 60 (less than 4 points out of 6 attitude related questions)

4.11 Data management and analysis

Collected data was checked at the end of each data collection day for its completeness and Consistency. Incomplete questionnaires were excluded and counted as a non-response rate. Then all completed questionnaires were entered into Microsoft excel and were exported to SPSS version 26 for analysis. During the process of analysis frequency distribution and percentage of different variables were computed to describe and summarize the basic socio-demographic characteristics of the respondents.

The results of analyzed data were organized and presented in the form of Frequency tables; pie charts and graphs to give a glance at the variables. Descriptive statistics like, Frequencies, proportions, and summary statistics were used to describe the socio-demographic data of residents. Bivariate and multivariate analysis using logistic regression models was used to determine the association between different predictor variables with the dependent variable.

The First Bivariate relationship between each independent variable and outcome variable was investigated using binary logistic regression analysis. The variables with a p-value of <0.2 on Bivariate analysis were used for multivariate logistic regression. Multivariate logistic regression analysis was used to minimize the effect of confounding variables and to identify the major factors of knowledge and attitude of breaking bad news. To assess the strength of the relationship between dependent and independent variables, an adjusted odds ratio with a 95% confidence interval and p-value <0.05 as cut point was used.

4.12 Quality assurance techniques

Data quality assurance techniques were given for data collectors, day to day activities during data collection. Supervisors evaluated data daily before the next day's activity. Data quality assurance was conducted by using a well-designed checklist. It was managed by the supervision of data collectors. The data were checked for completeness and consistency by the researcher before receiving from the data collectors.

4.13 Ethical consideration

The ethical clearance was obtained from Addis Ababa University, College of Medicine and Health Sciences, Internal Medicine Department's Research and Ethics Committee. Written consent was taken from the respondents to participate in the study. A clear explanation of the survey purpose was made to the respondents. Also, the participants were informed that they are free to withdraw consent and to discontinue participation without any form of interference by data collectors. Privacy and confidentiality of collected information will be ensured throughout the process.

5. RESULT AND DISCUSSION

5.1 Socio-demographic characteristics

This study included 286 participants from different specialties. Of these 286 respondents, 201 (70.3%) were males and 85(29.7) were females and the mean age of the participants was 29.69 years (SD±2.21) years.). Regarding the participants' distribution in terms of their field of study, the majority of the participants were from Internal medicine 39(13.6%), Gynecology and Obstetrics 34(11.9%), Pediatrics 38(13.3%), and General Surgery (12.6%). About one-third 87(30.4%) are the year three residents followed by Year two 79 (27.6%) Year one 68(23.8%), Year four 44(15.4%), and year five 8(2.8%). The mean of work experience was 4.6 years (SD±1.86)

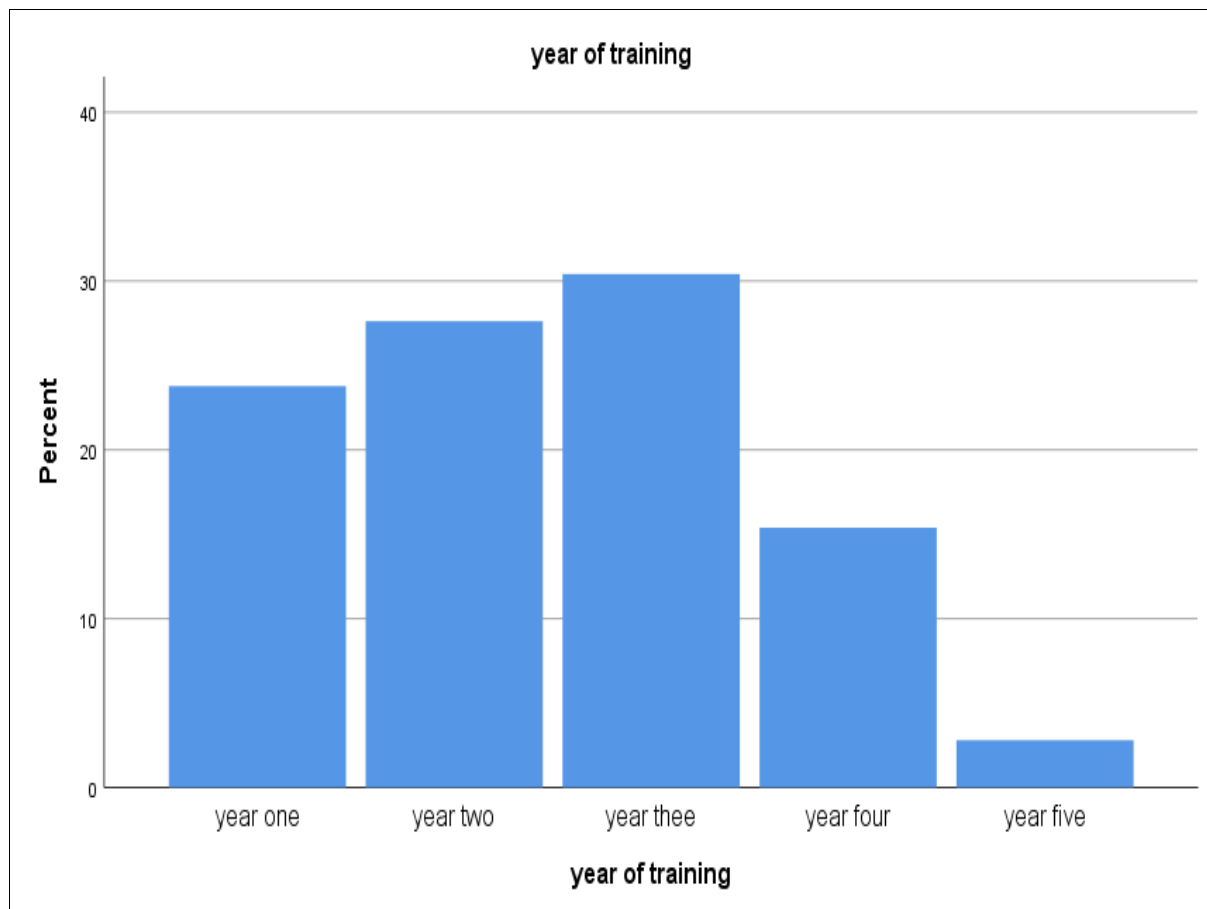
Table-5.1 Socio-demographic characteristic of participants

Variable		Frequency	Percent
Gender	Male	201	70.3%
	Female	85	29.7%
Marital status	Single	184	64.3%
	Married	102	35.7%
	Divorced	0	
	Widowed	0	
Religion	Orthodox	175	61.2%
	Protestant	62	21.7%
	Muslim	36	12.6%
	Catholic	2	0.7%
	Other	11	3.8%
Year of training	Year one	68	23.8%
	Year two	79	27.6%
	Year three	87	30.4%
	Year four	44	15.4%
	Year Five	8	2.8 %

Table 2- Participants department distribution

Departments	Frequency	Percent
Anesthesia and critical care	21	7.3
Dermatology	10	3.5
Emergency and critical care Medicine	14	4.9
ENT	6	2.1
Family Medicine	8	2.8
General surgery	36	12.6
Gynecology and Obstetrics	34	11.9
Neurology	13	4.5
Neurosurgery	12	4.2
Internal Medicine	39	13.6
Oncology	15	5.2
Orthopedics	17	5.9
Pediatrics and Child Health	38	13.3
Pediatric surgery	7	2.4
Psychiatry	10	3.5
Urology	6	2.1
Total	286	100.0

Figure 5.1- level of training of participants

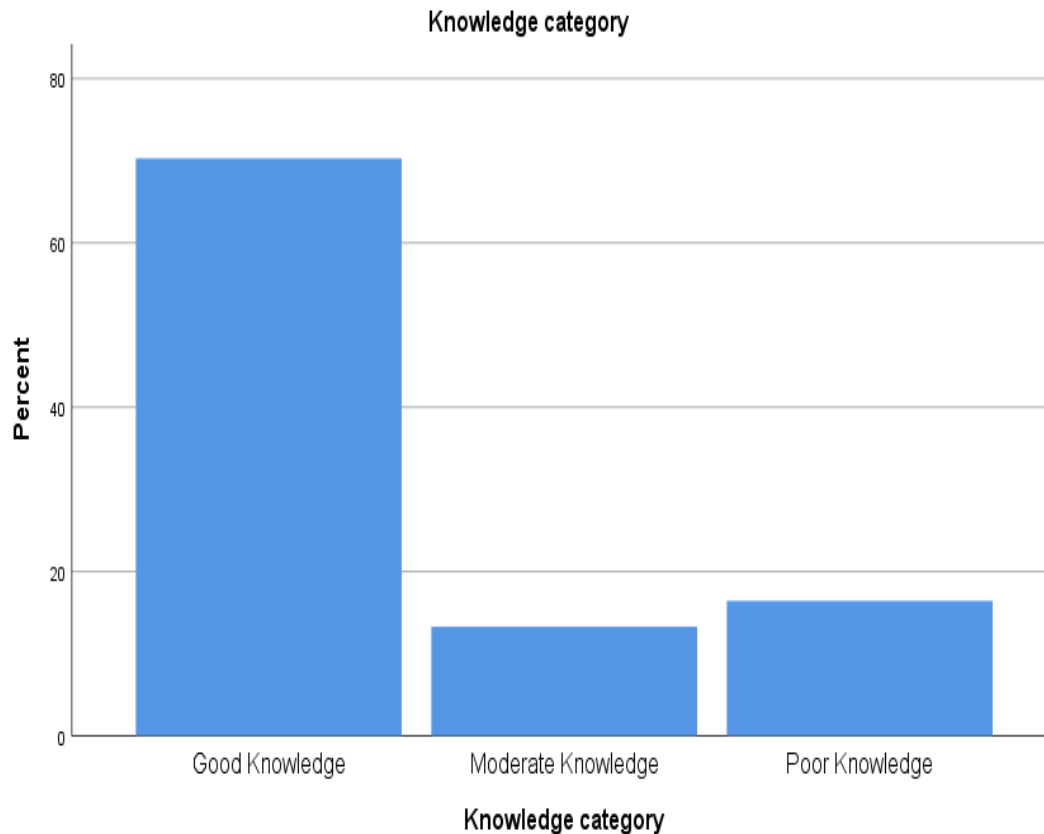


5.2 knowledge, breaking bad news experience and breaking bad news training

This study revealed 98.3% of participants have been involved in breaking bad news, and 37.1% admitted bad experiences in breaking bad news. In this study, 95.8% of participants revealed there is no separate room designated for breaking bad news at their respective departments and 94.4% of participants didn't follow any BBN guidelines to deliver bad news to the patients or family

With regards to training, this study showed 87.6% did not have any specific teaching or training on BBN. The majority (70.2%) of participants learned their BBN skills by simple observation of their seniors. While others developed by self-study from books, journals, videos, or the internet and hit and trial method. The study also revealed the majority of the participants (76.6%) were eager to receive BBN training.

Participants Knowledge levels were assessed based on the SPIKES model. The mean and median score of the participants' knowledge about breaking bad news in this study was 5.94 (SD $\pm$ 1.100) and 6 respectively. Among participants, 70.3% had good knowledge, followed by a poor knowledge (16.4%) and a Moderate level of knowledge (13.3%).



5.3 Factors associated with a level of breaking bad news knowledge

The association of the selected socio-demographic and other predictors for the level of knowledge of breaking bad news were analyzed using both bi-variable and multi-variable ordinal regression analysis to identify competent factors between the dependent and the independent variables.

On initial bivariable analysis, 5 variables with $p\text{-value} < 0.2$; Age, Gender, Year of training, the bad experience of breaking bad news, and work experience were associated with a level of knowledge and finally included in multivariate analysis

Subsequent multivariate analysis of the selected variables from the initial bivariate analysis with a $p\text{-value} < 0.2$ were analyzed and only Gender and year of training showed significant association to level of knowledge of breaking bad news with $P\text{-value} < 0.05$

Table 4.3-Multivariate analysis

Parameter Estimates											
Parameter		B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
				Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
Threshold	[Knowledge category=1]	2.565	2.6653	-2.659	7.789	0.926	1	0.336	13.004	0.070	2414.111
	[Knowledge category=2]	3.403	2.6677	-1.826	8.631	1.627	1	0.202	30.042	0.161	5604.064
[Gender=1]		-0.639	0.3082	-1.243	-0.035	4.299	1	0.038	0.528	0.289	0.966
[Gender=2]		0 ^a							1		
[year of training=1]		2.319	1.1503	0.065	4.574	4.065	1	0.044	10.170	1.067	96.934
[year of training=3]		0.719	1.1123	-1.461	2.899	0.418	1	0.518	2.052	0.232	18.154
[year of training=4]		1.026	1.1207	-1.170	3.223	0.839	1	0.360	2.791	0.310	25.105
[year of training=5]		0 ^a							1		
Age		0.024	0.0850	-0.143	0.191	0.080	1	0.777	1.024	0.867	1.210
work experience		-0.034	0.1098	-0.250	0.181	0.098	1	0.755	0.966	0.779	1.198
(Scale)		1 ^b									
Dependent Variable: Knowledge category											
Model: (Threshold), Gender, year of training, Age, work experience											

With respect to gender female were less knowledgeable as compared men (AOR =0.54 95% CI= 0.289-0.966) p:0.038. Year participants were 2.32 times more knowledgeable as compared to other levels of training (AOR=10.170, 95% CI:(1.067 – 96.934) p;0.044.

5.4 Attitude, factors associated with attitude, self-reported breaking bad news skills

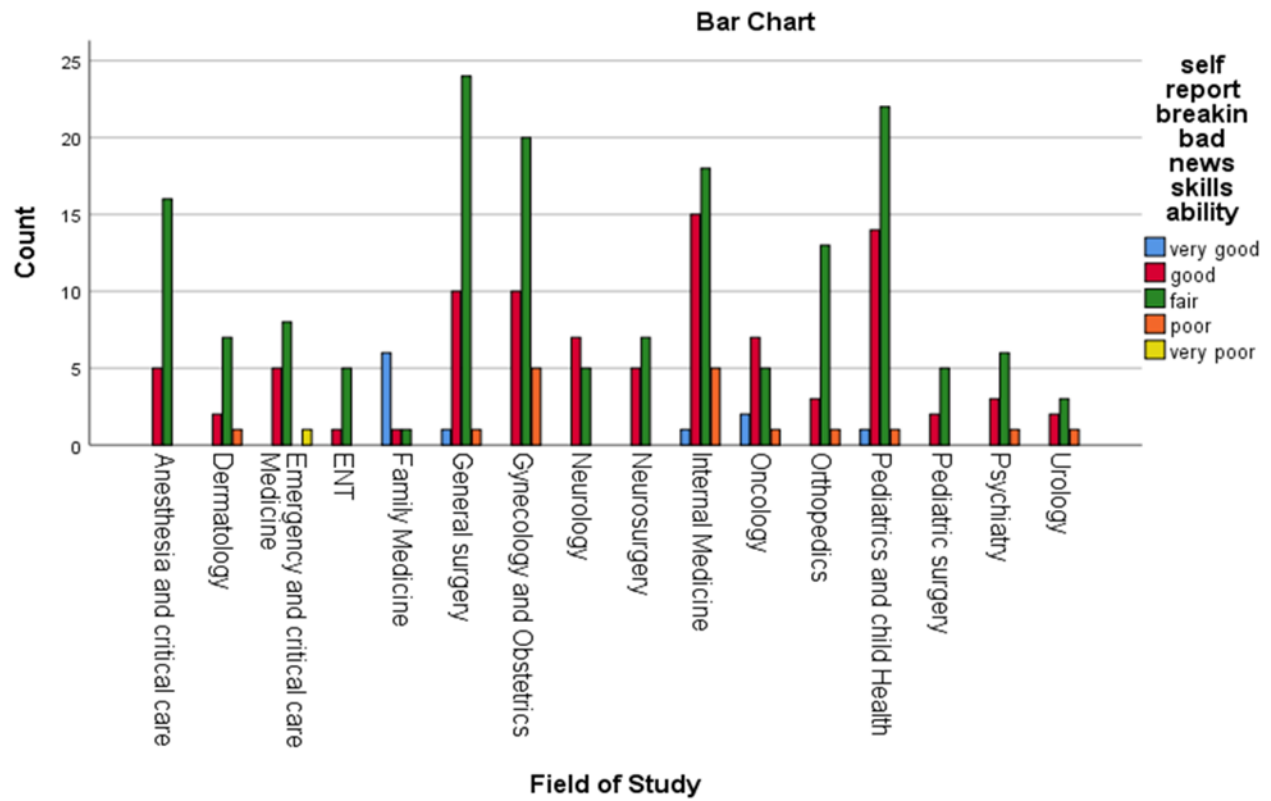
In this study, 89.7% of participants perceived breaking bad news as a difficult task while 60.8% reported they were not confident to break bad news independently. the majority reported their main fear not to break bad news were fear of patient reaction 51.6% and fear of inadequate skill 43.4%.

In this study 39.2% participants perceive, breaking bad news should delivered first to the patient, then to the family, 30.4 % first to the family, then to the patient, and 12.2% only to the patient.

The majority (57.7%) of participants were only fairly satisfied with their skills of breaking bad news, and (72.2%) and (25.2%) ranked incorporation of Breaking Bad News in undergraduate and postgraduate courses as very important and important respectively

Participants' attitudes were assessed based on the SPIKES model. The mean and median score of the participants' attitude about breaking bad news in this study was 5.51 (SD $\pm$ 0.7) and 6 respectively. Among participants, 91.6% had a positive attitude toward what should be followed during BBN per SPIKES protocol.

Figure 4.3- Self reported breaking bad new Skills by each department



5.5 Discussion

Communication skills and in particular breaking bad news is one of the important skills for a clinician with regular contact with patients. This study aimed to assess knowledge and attitude of breaking bad news to patients and their family and it provides a valuable local perspective about the knowledge, awareness, and attitudes of TASH Residents with regards to the breaking bad news. (25)

This study revealed 87.6% did not have any specific teaching or training on BBN. This finding is comparable to a study done at SPHMMC, Addis Ababa, Ethiopia, in which (83.8%) had no formal or specific training on breaking bad news. Also comparable with Study conducted in Nigeria only 22.1% of respondents have had formal training at some point in their career and Survey conducted at the 1998 Annual Meeting of the American Society of Clinical Oncology (ASCO) in which only less than 10% of survey respondents had any formal training in breaking bad news. (26) (17) (27)

Among the participants of this study who didn't receive formal or any specific training on breaking bad news, 70.2% developed their breaking bad news skills by simple observation of their seniors. While others developed their skills by self-study from books, journals, videos, or the internet and hit and trial method.

The majority of the respondents in this survey (76.6%) were eager to receive BBN training and 72.2% and 25.2% of Participants ranked the incorporation of Breaking Bad News in the undergraduate and postgraduate courses as very important and important respectively. This is comparable to the results of a study conducted among Pakistan's postgraduate residents showed; (65%) were eager to get training in this regard and 65.9% residents was developed BBN skills that showed by simple observation of their seniors. Also, comparable to a study conducted in Brazil which showed a majority believed that adding the subject to undergraduate courses was important (45.45%) or very important (42.15%) and a study conducted in Portugal 78% of participants feel they need training in breaking bad news. (15) (19) (22)

Previous studies have revealed that an ideal location for a physician to do BBN is comfortable, quiet, private with minimal interruptions, and large enough to accommodate multiple staff and family members. (22) (15)

Among participants of this study 98.2 % were involved in breaking bad news and 37.1 % revealed they had a bad experience of breaking bad news. This percentage is comparable to studies in Sudan, and Korea among residents and fellows being trained in a teaching hospital. (14) (28)

In this study, 60.8% of participants revealed are not feel comfortable to independently break the bad news and 89.7 % perceived this task is difficult (strongly agree 34.5% and agree 55.2%). This is comparable to a study conducted in Portugal among Portuguese family doctors on dealing with communication with patients with life-threatening diseases which showed that about 85% consider that breaking bad news is a difficult task.

The effects of different socio-demographic variables and other predictors were tested for their association with the participant knowledge level of breaking bad news; gender and year of training were significantly associated with the knowledge level of participants. With respect to gender female were less knowledgeable as compared men (AOR =0.54 95% CI= 0.289-0.966) p:0.038. In contrast, a study done among Pakistan post-graduated residents showed a positive association was found between gender (p<0.05). But a study done in Nigeria showed there was no significant gender difference in BBN in all the scenarios (P = 0.120-0.844). The other factor significantly associated with this study was the level of training; Year participants were 2.32 times more knowledgeable as compared to other levels of training (AOR=10.170, 95% CI:(1.067 – 96.934) p;0.044.

The majority of participants (58%) revealed they were only fairly satisfied with their breaking bad news skills. This is comparable to a study done in Pakistan in which 47% were only satisfied with their BBN skill. (15)

This study also revealed 94.4% of participants didn't follow any BBN guidelines to deliver bad news to the patients or families. This finding is comparable to a study done at St. Paul Hospital Ethiopia (82.1%) were not aware of the SPIKES protocol. In contrast to this: a study conducted in Sudan, Korea, and Brazil showed a majority of respondents were adherent to SPIKES protocol. (14) (17) (22)

SPIKES is the most commonly used protocol for breaking bad news. It was evaluated for structuring the delivery of bad news in the United States, Canada, Germany, United Kingdom, Sudan and other countries.

Strengths: There are few studies done with regards to BBN KAP in Ethiopia and it can be baseline as references for subsequent study

Limitations: There are some limitations of this study. It is done in a single center. Other limitations were the population selected comprised Residents so it was not representative of the entire health professionals, Fellows and consultants were not included, patients' perspectives and feedback regarding a physician's communication skills were not assessed. Future studies should focus on the involvement of practicing physicians, fellow, and consultants, and perceptions and expectations of patients from their physicians with regards to breaking of bad news.

6. CONCLUSION:

Most of the participating physicians didn't not receive any training on BBN, a substantial number of residents didn't follow BBN protocol. Even though a majority of participants had good knowledge they had little satisfaction regarding their BBN skills. Therefore, it is necessary to plan education and training for trainees during their residency programs to improve skills for BBN and to help reduce their stress from BBN.

7. RECOMMENDATIONS

Breaking bad news is a fundamental doctor's skill. Based on the finding of this study I would like to suggest the following:

BBN skills should be enhanced using different simple techniques, like training courses, conducting workshops, facilitating frequent Continuing Professional development (CPD), adoption of a step-wise protocol, incorporation of BBN in to undergraduate medical curricula should be considered for building communication skills, and preparing proper setting for breaking bad news .Also this is a potential area to do further study so I recommend a researcher to include consultants and fellow Assess patient and family perspective of breaking bad news and to assess the practice part.

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Knowledge and Attitude of Resident on Breaking Bad News; Questionnaire

Part I: General questions

1. What is your gender?
 - A. Male
 - B. Female
2. What is your age? (In Years) -----
3. Marital status
 - A. Single
 - B. Married
 - C. Divorced
 - D. Widowed
 - E. No Response
4. Religion
 - A. Orthodox
 - B. Muslim
 - C. Protestant
 - D. Catholic
 - E. Other
5. Your department
 - A. Anesthesia and critical care
 - B. Dermatology
 - C. Emergency and critical care
Medicine
 - D. ENT
 - E. Family Medicine
 - F. Gynecology and Obstetrics
 - G. Internal Medicine
 - H. Neurology
 - I. Neurosurgery
 - J. Nuclear Medicine
 - K. Oncology
 - L. Orthopedics
 - M. Pediatric surgery
 - N. Pediatrics and Child Health
 - O. Psychiatry
 - P. Urology
6. Work experience (Since graduation from medical school in years) ---

7. Year of Residency

- A. Year one
- B. Year two
- C. Year three
- D. Year four
- E. Year five

Part II-Resident experience, training, Adherence to Protocol and opinion on BBN

1. Have you ever broken the bad news to patients or patients' families?
 - a. Yes
 - b. No
2. Did you have any bad experiences due to improperly breaking bad news?
 - a. yes
 - b. No
 - c. Am not sure
3. How do you rate your ability of breaking bad news?
 - a. Very Good
 - b. Good
 - c. Fair
 - d. Poor
 - e. Very Poor
4. Do you follow any guidelines for breaking the bad news in your department?
 - a. Yes
 - b. No
5. If your answer is yes to the above question **QI-11**, Which one are you practicing in your unit?
 - a. SPIKES
 - b. ABCED
 - c. BROKE
 - d. Protocol prepared by the department
 - e. Other

6. Have you received any training in breaking the bad news?
 - a. Yes
 - b. No.
7. How did you learn to give bad news?
 - a. Formal teaching during the undergraduate and postgraduate course
 - b. Observation of other experts
 - c. Self-study from books, journals, videos, or the internet
 - d. Hit and trial method
8. In your department who is the primary deliverer of bad news?
 - a. Consultants
 - b. Resident alone
 - c. Resident in presence of consultants
 - d. Fellow
9. Is there any separate room prepared for breaking bad news in your department?
 - a. Yes
 - b. No
10. Do you feel comfortable to independently breaking the bad news?
 - a. Yes
 - b. NO
 - c. I am not sure

11. If your answer to **QII- 1 is (No)**; What fears do you have in giving bad news (may have more than one answer)
- a. Fear of ending the patient's hope
 - b. Fear of the patient reaction
 - c. Fear of your own emotional reaction
 - d. Fear of inadequate skills
12. To whom do you perceive bad news delivered first?
- a. Only to the patient
 - b. Only to the family
 - c. To the Patient and his companion, at the same time
 - d. Preferably, first to the family, then to the patient
 - e. Preferably, first to the patient, then to the family Family
13. Do you perceive this task as difficult?
- a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree
14. How important do you believe the incorporation of how to give Breaking Bad News in an undergraduate and postgraduate course?
- A. Very important
 - B. More or less important
 - C. Not important
 - D. No matter
15. Do you want to have any training regarding breaking bad news skills?
- A. Yes
 - B. No
 - C. Not sure

Part III-A. Knowledge

1. What is bad news?
 - a. Any information that caused physical harm to the patient.
 - b. any information that was transmitted with the implication of some serious negative change that could affect the individual's outlook on life or his/her prospects for the future
 - c. just report death
 - d. I don't know
2. Where should bad news ideally be delivered
 - a. Multi bedroom
 - b. Outside room on the corridor
 - c. Quiet place/private room
 - d. Any site
3. Before breaking Bad News what the receiver already knew about the situation of the bad news should be entailed
 - a. True
 - b. False
 - c. I don't know
4. Before breaking Bad News, the receiver should be asked how much information he /she want to know about the situation of the bad news
 - a. True
 - b. False
 - c. I don't know
5. After delivering Bad news the receiver should get written materials about the condition and/or the services available
 - a. True
 - b. False
 - c. I don't, know

6. During delivering bad news chance should be given for the receiver to ask questions, express his /her feeling
 - a. True
 - b. False
 - c. I don't know
7. During breaking bad news physician should assess the patient's emotions and give emotional support with emphatic responses?
 - a. True
 - b. False
 - c. I don't know

Part III-B. Attitude

1. Bad news should be given in a separate room for the patient to feel comfortable and keep privacy?
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree
2. A multi-bed hospital room can be used to deliver the news
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree
3. At the beginning of the conversation, the patient should be asked how much he/she had known about his/her disease?
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree

4. Before breaking bad news, the patient should be asked how much information he/she would like to be given?
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree
5. During breaking bad news physician should assess the patient's emotions and give emotional support with emphatic responses?
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree
6. The physician should explain future strategy including treatment options and prognosis?
 - a. Strongly agree
 - b. Agree
 - c. I don't know /Neutral
 - d. Disagree
 - e. Strongly Disagree

Declaration

I, the under signed, declared that this is my original work has never been presented in this or any other university, and that all the resources and materials used for the research proposal, have been fully acknowledged.

Principal investigator (PI)

Name_____

Signature_____

Date_____

Advisor

. Name_____

Signature_____

Date_____