ORIGINAL RESEARCH

Evaluation of doctor's perception & skills in breaking bad news using SPIKES model

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Received: 12March, 2023 Accepted: 18April, 2023

ABSTRACT

Background: Breaking bad news (BBN) to patients and their families is one of the most difficult tasks health professionals can face. The way bad news are communicated has a big impact on everyone involved: patient, their relatives and health professionals.Objective: To evaluate Doctor's Perception & Skills in breaking bad news using SPIKES Model. And to identify the Socio-demographic factors associated with evaluation of Doctor's Perception & Skills in breaking bad news using SPIKES Model. Methods: A cross sectional descriptive study was carried out among 413 doctors of Institutional Hospital Dr ShankarraoChavan Government Medical College & Private Hospital's in Nanded city. Predesigned & Pretested Questionnaire which consisting of Personal data, & Environment support question, Psychical support question & Personal question was used. Results: The mean age of the study participants was 38.43±9.72 years. There was statistically significant association between gender and responses to Questionnaire like "I highlight the importance of the issues before telling the details" & "I deliver bad news as soon as they are aware from their illness" & "I choose a time that relative feels comfortable" & "I sit beside them, not at my table", Also between age &responses to Questionnaire like "I highlight the importance of the issues before telling the details" & "I deliver bad news as soon as they are aware from their illness" & "I choose a time that relative feels comfortable" & "I wear my medicine coat" & "I ask secretary to hold my Phone calls" & "I switch off my cell phone & pager", Also between Education & responses to Questionnaire like "I choose a private location" & "I choose a time that relative feels comfortable" & "I wear my medicine coat". Conclusion: Present study concluded that the knowledge, perception & essential communication skills required for breaking bad news among doctors are adequate, but still there is scope for improvement with regards to perception, counselling & communication skills & training aspects for breaking the bad news. The present study strongly highlighted the need for more practical measures to improve these essential skills. Also, further planned studies are required to find out deficiencies and improvement in these domain. Key words: Breaking bad news, SPIKES, perception, skills

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INTRODUCTION

In the medical context, bad news are 'any news that drastically and negatively alters the patient's view of

his or her future'. Bad news means a kind of information that starts a new life era for the patient¹.In terms of health care, bad news is considered any

information that changes a patient's view of the future in a negative way².Bad news not only refers to death but also to diagnoses that impose changes in the patient' life³.The SPIKES model is one of the practical guidelines in breaking the bad news in the world based on a mutual communication model⁴.

The acronym SPIKES refers to six steps recommended for breaking bad news:

- i) Setting up the interview.
- ii) Assessing the patient's Perception.
- iii) Obtaining the patient's Invitation.
- iv) Giving Knowledge and information to the patient,
- v) Addressing the patient's Emotions with empathic responses.
- vi) Strategy and summary¹.

Breaking bad news (BBN) to patients and their families is one of the most difficult tasks health professionals can face. The way bad news are communicated has a big impact on everyone involved: recipients, their families and health professionals⁵.

Breaking bad news (BBN) to patients and their relatives is a complex and stressful task. This important communication skill is required in almost all branches of medicine, including oncology, intensive care units, paediatrics, gynaecology and obstetrics, orthopaedics, ophthalmology and many other disciplines. Therefore, almost all physicians and surgeons will have to deal with BBN multiple times in their professional lives. The situation regarding training in BBN is far from satisfactory in most of the developing countries⁶. The process of communicating bad news has received notable attention in the medical literature. Much of this interest is due to the fact that most researchers and practitioners recognize the potential importance of the process to both givers and receivers. Most published work in this area has focused on one of the following three topics:

- 1. Making recommendations about how to deliver news.
- 2. Exploring receiver preferences for getting bad news.
- 3. Reviewing training programs designed to enhance deliverer skills.

Much less work has been done that aims to examine the physical or psychological effects of the processes on all parties involved⁷.

The way these massages are delivered is highly important because the lack of sufficient skill and knowledge can negatively impact both the patient. Physicians find this situation complex and stressful. Breaking bad news has psychological effects on both patient and doctor. Studies have demonstrated patients' need and interest to know the truth. Therefore, if they feel that their doctor is not honest, it makes them more anxious and damages their trust. 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. It is demonstrated that telling the truth has several benefits, such as strengthening the physicianpatient relationship, less complains against the physician and better decision making for the treatment process. 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 consequences⁸. The common denominator in the bad news is a message, which has the potential to shatter hopes and dreams leading to very different lifestyles and futures⁹.Even though there are many studies regarding Doctor's Perception & Skills in breaking bad news. Very few studies are conducted in India. Therefore, we are conducting this study to evaluate Doctor's Perception & Skills in breaking bad news using SPIKES Model in a city.

AIM

This study is aimed at Evaluation of Doctor's Perception & Skills in breaking bad news using SPIKES Model.

OBJECTIVE

- 1. To evaluate Doctor's Perception & Skills in breaking bad news using SPIKES Model.
- 2. To identify the Socio-demographic factors associated with evaluation of Doctor's Perception & Skills in breaking bad news using SPIKES Model.

MATERIALS AND METHODS

STUDY DESIGN: The present study is a cross-sectional descriptive study.

STUDY AREA:The study was carried out in a medical college & private hospitals in a Nanded city of Maharashtra.

STUDY DURATION: The present study was carried out during March 2022 to August 2023.

STUDY POPULATION:The present study was conducted among doctors of Dr ShankarraoChavan Government Medical College, Nanded, Maharashtra & doctors of Private Hospitals in Nanded city.

INCLUSION CRITERIA

All doctors working in Dr. ShankarraoChavan Government Medical College, Nanded& Doctors working in private hospitals in Nanded city, who are willing to participate in the study.

EXCLUSION CRITERIA

Doctors who are not willing or absent during the study

SAMPLE SIZE: By using Complete Enumeration method, we selected all willing Doctors in Dr ShankarraoChavan Government Medical College,

Nanded& All willing Doctors working in Private Hospitals in Nanded City with considering Inclusion & Exclusion Criteria that treated as sample & So, Sample Size was 413.

SAMPLING TECHNIQUE: This study was conducted in all doctors working in Dr ShankarraoChavan Government Medical College, Nanded& Doctors working in private hospitals in Nanded city. Hence all doctors, who are willing to participate in the study included in this study.

STUDY TOOL: Predesigned & Pretested Questionnaire which consist of two parts.In first part, Doctor's Personal data such as name, age, sex etc. was collected. In second part, there are 3 types of question are there i.e. Environment support question, Psychical support question & Personal question. Ethical clearance obtained from the Ethics committee of Dr ShankarraoChavan Government Medical College, Nanded prior to commencement of the study.

STATISTICAL ANALYSIS: Data was compiled in Microsoft Excel 2019. Statistical Analysis of the data was carried out by using Epi info software. Descriptive statistics was used to summarize the quantitative variables.

RESULTS

In this study, pre-designed & pre-tested questionnaire was administered to all willing doctors in Dr ShankarraoChavan Government Medical College, Nanded& doctors working in private hospitals in the Nanded city. A total of 413 doctors participated in this study. All doctors returned completely filled questionnaire.

 Table 1: Demographic profile of doctor

Sr. No.	Variable		Mean ± S.D.
1.		Age in years	38.43 ± 9.72
1.		Age in years	Total numbers (%)
2.	Sex	Male	282 (68.20%)
۷.	Sex	Female	131 (32.80%)
		Undergraduate	36 (8.80%)
3.	Qualification	Postgraduate & Diploma	356 (86.19%)
		Super Speciality	21(5.01%)
4.	Place of work	Government Hospital	102 (24.69%)
4.	Place of work	Private Hospital	311 (75.31%)

As per Table 1 shows that, Mean Age \pm SD in years was 38.43 \pm 9.72. In study group, proportions of male was 68.20% and female was 32.80%. In case of qualification maximum doctors belongs to Postgraduate and Diploma (86.19%). As per place of work maximum doctors belongs to private hospital (75.31%).

 Table 2: Percentages of Responses to Questionnaire for Evaluation of Doctor'sPerception& Skills in breaking bad news using SPIKES Model

Sr. No.	Variable	Never	Seldom	Sometimes	Often	Always
1.	I maintain relative's trust	00	00	01	42	370
1.	i manitam relative s trust	(0%)	(0%)	(0.2%)	(9.8%)	(90%)
2.	I hold their arms for warm empathy		25	168	123	55
2.	Those their arms for warm emparity	(10%)	(6%)	(41%)	(29%)	(14%)
3.	I highlight the importance of the issues before telling the Details	00	25	134	155	99
5.	I fightight the importance of the issues before terming the Details	(0%)	(5%)	(33%)	(38%)	(24%)
4.	I deliver bad news as soon as they are aware from their illness		64	146	137	50
ч.	I deriver bad news as soon as they are aware norm then miness	(4%)	(16%)	(35%)	(33%)	(12%)
5.	I encourage them to express their feeling		27	59	59	265
5.	I encourage ment to express ment teening	(0.7%)	(6.3%)	(14%)	(14%)	(65%)
6.	I choose a private location		01	09	46	351
0.	i choose a private location	(1.4%)	(0.2%)	(2.4%)	(11%)	(85%)
7.	I choose a time that relative feels comfortable	51	46	54	164	98
7.	T choose a time that relative reels connortable	(12%)	(11%)	(13%)	(40%)	(24%)
8.	I sit beside them, not at my Table	123	42	179	51	18
о.	I sit deside them, not at my Table	(30%)	(10%)	(43%)	(13%)	(4%)
9.	I wear my medicine coat	04	33	68	197	111
9.	I wear my medicine coat		(8%)	(17%)	(48%)	(27%)
10.	I ask secretary to hold my phone calls	203	26	133	30	21
10.	ask secretary to note my phone cans	(49%)	(6%)	(33%)	(7%)	(5%)
11.	I switch off my call phone & pager	309	18	45	15	26
11.	I switch off my cell phone & pager	(75%)	(4%)	(11%)	(4%)	(6%)

As per Table 2 shows that, 90% of doctors always maintain relative's trust & 41% doctors sometimes hold patients arms for warm empathy. 33% doctors sometimes highlight the importance of the issues before telling the details. 35% doctors sometimes deliver bad news as soon as they are aware from their illness. 59% doctors sometimes or often encourage them to express their feeling.About 85% doctors

always choose a private location and 40% doctors often to choose a time that relative feels comfortable. 43% doctors they sit sometimes beside them, not at own table. 48% of doctors sometime wear medicine coat. 49% doctors never ask secretary to hold his phone calls. 75% doctors never switch off cell phone & pager.

 Table 3: Association of study subjects between sex & Responses to Questionnaire for Evaluation of Doctor's Perception & Skills in breaking bad news using SPIKES Model

S.N.	Variable	Sex	Never	Seldom	Some Times	Often	Always	χ²-value	P- value
1.	I maintain relative's trust	Male	00	00	00	29	253	2.166	0.3386#
1.	I maintain relative s trust	Female	00	00	01	13	117	2.100	0.5580
2.	I hold their arms for warm empathy	Male	25	17	117	88	35	2.785	0.5945#
۷.		Female	17	08	51	35	20	2.765	0.3943
3.	I highlight the importance of the issues before telling	Male	00	23	87	111	61	10.02	0.0184*
5.	the details	Female	00	02	47	44	38	10.02	0.0164
4.	I deliver bad news as soon as they are aware from	Male	06	39	103	98	36	0.020	0.0417*
4.	their illness	Female	10	25	43	39	14	9.928	0.0417*
5.	I encourage them to express their feeling	Male	02	21	38	41	180	1.592	0.8102#
5.		Female	01	06	21	18	85		
6.	I choose a private location	Male	05	00	07	29	241	3.761	0.4393#
0.		Female	01	01	02	17	110		0.4393
7.		Male	32	36	36	124	54	14.92	0.0051*
7.	I choose a time that relative feels comfortable	Female	19	10	18	40	44	14.83	0.0031*
8.		Male	81	32	122	40	07	11.16	0.0249*
0.	I sit beside them, not at my table	Female	42	10	57	11	11	11.16	0.0249*
9.		Male	02	26	52	134	68	6.027	0.1397#
9.	I wear my medicine coat	Female	02	07	16	63	43	6.937	0.1397
10	Look approximite hold my phone C-11-	Male	134	18	94	23	13	2.215	0.6062#
10.	I ask secretary to hold my phone Calls	Female	69	08	39	07	08	2.215	0.6963#
11	I guitab off my call phone & para	Male	211	14	29	9	19	1.906	0.7713#
11.	I switch off my cell phone & pager	Female	98	04	16	06	07	1.806	0.7713

*Statistically significant (p<0.05)# Statistically Non-significant (P≥0.05)

As per Table 3 shows that, by using Pearson's chisquare test obtained (p<0.05) and it shows statistically significant means they associated gender with different perceptions and skills for breaking bad news like highlight the importance of the issues before telling the details, deliver bad news as soon as they are aware from their illness, choose a time that relative feels comfortable and doctor sit beside them, not at his table. Remaining perceptions and skills not associated with sex because it shows statistically not significant ($p \ge 0.05$).

 Table 4: Association of study subjects between age & Responses to questionnaire forevaluation of Doctor's perception & skills in breaking bad news using SPIKES Model

S.N.	Variable	Age in Years		Seldom	Some times	Often	Always	χ²-value	P-value
1.	I maintain relative's trust	≤40	00	00	01	31	245	1.477	$0.4779^{\#}$
1.	I manitalii fefative s trust	>40	00	00	00	11	125	1.4//	0.4779
2.	I hold their arms for warm empathy	≤40	34	17	108	85	33	5.740	0.2194#
۷.	Thold their arms for warm emparity	>40	08	08	60	38	22	5.740	0.2194
3.	I highlight the importance of the issues before telling the details	≤40	00	21	95	92	69	8.619	0.0348*
5.		>40	00	04	39	63	30	8.019	0.0348*
4.	I deliver bad news as soon as they are aware from their illness	≤40	12	54	93	86	32	11.24	0.0240*
4.		>40	04	10	53	51	18	11.24	0.0240
5.		≤40	01	21	47	40	168	8.816	0.0659#
5.	I encourage them to express their feeling	>40	02	06	12	19	97	0.010	0.0039
6.		≤40	03	01	05	29	239	2 226	0.6760#
0.	I choose a private location	>40	03	00	04	17	112	2.326	0.0700
7.	I shappe a time that relative feels comfortable	≤40	47	33	36	97	64	10 70	0.0005*
7.	I choose a time that relative feels comfortable	>40	04	13	18	67	34	19.79	0.0005*
8.	I sit beside them, not at my table	≤40	88	32	111	34	12	4.776	0.3110 [#]

		>40	35	10	68	17	06		
9.	I waar my madiaina aaat	≤40	03	18	40	130	86	10.10	0.0388*
9.	I wear my medicine coat	>40	01	15	28	67	25		
10.		≤40	166	15	71	12	13	42.39	.0001**
10.	I ask secretary to hold my phone calls	>40	37	11	62	18	08		
11.	I switch off my cell phone & pager	≤40	218	11	29	09	10	12.10	0.0166*
11.		>40	91	07	16	06	16		

*Statistically significant (p<0.05), **Statistically highly significant (p<0.001)

As per Table 4 shows that, by using Pearson's chisquare test obtained (p<0.05) and it shows statistically significant meansthey associated gender with different perceptions and skills for breaking bad news like highlight the importance of the issues before telling the details, deliver bad news as soon as they are aware from their illness, choose a time that relative feels comfortable, wear medicine coat, ask secretary to hold his/her phone calls and switch of his/her phone calls and switch off his/her cell phone & pager. Remaining perceptions and skills not associated with sex because it shows statistically not significant ($p \ge 0.05$).

 Table 5: Association of study subjects between Education & Responses to Questionnaire for Evaluation of Doctor's Perception & Skills in breaking bad news using SPIKES Model

1.		Education	Never	Seldom	Someti mes	Often	Always	χ²-value	P-value
1.	I maintain relative's trust	U.G.	00	00	00	02	34		
		P.G./Dip	00	00	01	38	317	1.120	0.8911#
		S.S.	00	00	00	02	19		
	I hold their arms for warm empathy	U.G	02	02	13	13	06	8.483	
2.		P.G./Dip	37	23	149	104	43		$0.3878^{\#}$
		S.S.	03	00	06	06	06		
	I highlight the importance of the issues before telling the details	U.G	00	04	09	14	09		
3.		P.G./Dip	00	21	116	130	89	8.880	0.1804#
		S.S.	00	00	09	11	01		
	I deliver bad news as soon as they are aware from theirIllness	U.G	03	03	08	15	07		
4.		P.G./Dip	13	59	129	113	42	10.98	0.2029#
		S.S.	00	02	09	09	01		
	I encourage them to express their feeling	U.G	00	01	02	06	27		
5.		P.G./Dip	03	25	52	52	224	7.035	0.5329#
		S.S.	00	01	05	01	14		
	I choose a private location	U.G	01	00	00	01	34	19.63	0.0118*
6.		P.G./Dip	05	01	06	42	302		
		S.S.	00	00	03	03	15		
		U.G	00	01	09	20	06	16.22	0.0393*
7.	I choose a time that relative feels comfortable	P.G./Dip	49	43	42	134	88		
		S.S.	02	02	03	10	04		
		U.G	10	02	18	05	01		0.4857#
8.	I sit beside them, not at my Table	P.G./ Dip	109	38	147	45	17	7.481	
		S.S.	04	02	14	01	00		
		U.G	00	00	05	26	05		
9.	I wear my medicine coat	P.G./Dip	03	29	61	158	105	23.72	0.0026*
	-	S.S.	01	04	02	13	01		
		U.G	23	02	08	01	02		0.3306#
10.	I ask secretary to hold my phonecalls	P.G./Dip	168	21	120	29	18	9.140	
	······································	S.S.	12	03	05	00	01	1	
		U.G	27	04	01	02	02		
11.	I switch off my cell phone & pager	P.G./Dip	266	11	43	13	23	14.45	0.0708#
	· · · · · · · · · · · · · · · · · · ·	S.S.	16	03	01	00	01		

*Statistically significant (p < 0.05)#Statistically Non-significant ($P \ge 0.05$)

As per Table 5 shows that, by using Pearson's chisquare test obtained (p < 0.05) and it shows statistically significant means they associated gender with choose private locations, choose a time that relative feels comfortable and wear medicine coat. Remaining perceptions and skills not associated with sex because it shows statistically not significant (p > 0.05).

DISCUSSION

In the present study, pre-designed & pre-tested questionnaire was administered to all participated doctors in DrShankarraoChavan Government Medical College, Nanded& doctors working in private hospitals in the Nanded city. It was found that majority of doctor's shows following things-they maintain relative's trust; they hold their arms for warm empathy; they encourage the relatives to express their feeling; the place of disclosure of Breaking Bad News is the Doctor's Cabin; they feel stressed while Breaking Bad News; they take help of their staff/resident doctors while Breaking Bad News; they experienced Crying of relatives while Breaking Bad News as negative side; they break Bad News by explaining all details; Sorry is the first word of condolence; they break Bad News to relatives who is responsible one; there is no change in their Presentation Style in breaking bad news of death of Young Ones or Old Ones; their Expression & Language does not changes when underlying cause of death differs.

Similar studies around the world shows following things

GelarehBiazeret al. showed in their study that according to analysis of 235 questionnaire only 32 (13.6%) of the participants had been taught to deliver bad news & 195(83%) felt they need educational courses. Also, 40 (17%) believed that they had enough ability to deliver these massages. No differences were observed among significant physicians who had taken teaching courses in breaking bad news to the relatives^[8]. Abdul rahman A et al. showed in their study that a total of 458 physicians participated in the study. Physician with higher qualifications had lower total score of the mean in BBN skills. The majority (70%) preferred to discuss information with close relatives. Although most of the participating physicians were keen to help their patients, they lack the essential knowledge & skills for breaking bad news. Thus, they are in need of specific training in this regard^[9].AbidJameelet al. showed in their study that of the total participants, 92 residents had not received any training in communication skills at the undergraduate level. Regarding the utility of the workshop, 91 residents said it had changed their perceptions to a major extent, while 92 residents rated the work shop as extremely useful or very useful. Formal structured training in breaking bad news is lacking both at undergraduate and postgraduate levels in Pakistan. Structured training programmes for residents can do the task effectively. Training of communication skills, including BBN, shall be made an essential component of medical education with frequent refresher courses for the postgraduates^[6].

Magdalena M. Witt *et al.* showed in their study that the methods of successful communication should be taught to students and medical professionals involved in genetic counseling. Among the various teaching methods, the most recommended are programs combining the transfer of a theoretical knowledge with practical rehearsals and constructive feedback, distributed over the years of academic education. Teaching communication at a medical university should be obligatory, divided into stages and taught based on the international standards, using recognized and accepted protocols like the ones presented above^[10].HodaAhmari Tehran *et al.* showed in their study that Most of the subjects were male (69.5%), married (85.1%)and had no history of receiving formal education about breaking bad news to the patient. The research results revealed that the skill level of the research samples was relatively at desirable level. Given the lack of receiving formal education by general physicians and the impact of breaking bad news from physician to patients and their caregivers on the type of relationship between the physician and the patient, it is recommended to put more emphasis on continuous education programs, designed especially for general physicians^[4].

LIMITATIONS

This study lacked information on relative's satisfaction with current approaches. Also, as this was not an objective study, it only showed Doctor's point of view; however, they do not necessarily act as they believe.

CONCLUSION

Present study concluded that, the knowledge, perception & essential communication skills required for breaking bad news among doctors are adequate, but still there is scope for improvement with regards to perception, counseling & communication skills & training aspects for breaking the bad news. The present study strongly highlighted the need for more practical measures to improve these essential skills. Also, further planned studies are required to find out deficiencies and improvement in these domain.

Conflicts of Interest:None. **Financial support:**Nil.

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