Cue-responding in a Simulated Bad News Situation: Exploring a Stress Hypothesis

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Abstract

The stress-coping paradigm of Folkman and Lazarus (1984) was applied to investigate if the communicative reactions of the physician in a bad news transaction are related to the stressfulness of the situation. A standardized video bad news consultation was presented to 88 medical students. To examine their communicative reactions we selected 10 patient cues with different levels of expressed emotion to which the participants responded from the physician's point of view. A strongly positive relationship between expressed emotion and perceived difficulty of the cues and a gender effect occurred, confirming that handling emotions is stressful for physicians. The reluctance of physicians to address the emotionally laden issues of the consultation can be understood as a lack of a frame of reference. The problem-solving strategies, which they apply in the instrumental domain of the consultation, are ineffective when dealing with psychosocial suffering.

Keywords

bad news, coping, cue responding, expressed emotion, stress

Introduction

BREAKING BAD news is an important task in the health care professional's job, which has become an important topic for research. In recent years an overview of the literature concerning breaking bad news reveals a gap between what has been done and what should be done. Following the guidelines of several authors (Buckman, 1984; Fallowfield & Lipkin, 1995; Faulkner & Maguire, 1996; Maguire & Faulkner, 1998), and in line with the evolving principles of patient-centred medicine (Bensing, 2000; Putnam & Lipkin, 1995), a patient-centred model of communicating bad news is regarded as the ideal model. Within this model information concerning diagnosis, treatment and prognosis is tailored to the informational preferences of the individual patient.

Nevertheless, the patient-centred model of the delivery of bad news appears not so simple to put into practice and, as a consequence, the inadequacy of breaking bad news remains an important problem in medical settings. An overview of the literature reveals that several authors have focused on the difficulties experienced in the process of breaking bad news, but a great deal of the literature lacks empirical evidence. Broadly speaking, the reported difficulties can be divided into three main categories: difficulties related to patient characteristics (Fallowfield et al., 1998; Faulkner & Maguire, 1996), difficulties related to physician characteristics (Buckman, 1992; De Valck & Van de Woestijne, 1996; Espinoza et al.,1996; Fallowfield & Lipkin, 1995; Levinson et al., 1993; Maguire & Booth, 1996) and difficulties related to situational variables such as time and practice constraints (Cantwell & Ramirez, 1997; Fallowfield et al., 1998). Summarizing, there appears to be a gap between the ideal model and what is effectively done in clinical practice. This problem deserves attention because ineffective delivery of bad news has negative effects for the adjustment process of the receiver of bad news (Berglund & Sjøden, 1987; Paraskevaidis et al., 1993; Query & Kreps, 1996; Rutter et al., 1996).

In this article we wish to put the focus on the provider of bad news and we hope to gain further insight into the determinants of the physician's communication behaviour while breaking bad news. Several authors (Buckman, 1984; Taylor, 1988) have pointed to the fact that the process of breaking bad news is not only stressful for the receiver, but also for the physicians involved because giving this kind of information evokes unpredictable and strong emotional reactions in the patient which the physician may find difficult to handle. This can result in decreased personal and professional satisfaction and a tendency to avoid breaking bad news situations in the future.

Buckman (1992) and Espinosa et al. (1996) discuss the experienced types of anxiety by physicians during the bad news transaction as follows: fear of being blamed, fear of unleashing an emotional outburst, fear of expressing emotion, fear of the unknown and the untaught, fear of not knowing all the answers, personal fear of illness and death. This results in physicians' discomfort which may lead to inadequate communicative styles in bad news delivery.

Ptacek and Eberhardt (1996) argue that physicians' communicative behaviour can be understood as a coping method of minimizing their own discomfort. Consequently, so-called blocking behaviours occur in the transaction of bad news; these are communicative behaviours which inhibit the expression of emotion and patient disclosure and reflect a doctor-centred communication style. On the other hand, responding adequatly to patient cues is viewed as an important skill in promoting patient disclosure and can be put forward as a key component of patient-centred communication. By means of a 'cue', a patient often expresses indirectly emotional distress or concerns which they may find difficult to discuss with the physician. Consequently, it depends on the reaction of the physician to these cues as to whether the patient is able to express his concerns. Clarification of patient cues is viewed as an adequate response to cues that explore the patient's frame of reference (patient-centred), while ignoring cues results in blocking behaviours that inhibit patient disclosure (doctor-centred). Examples of blocking behaviours are: closed questions, multiple questions, leading questions, clarification with a physical focus, (premature) advice, (premature) reassurance, switching the topic and interrupting the patient (Maguire et al., 1996; Roter & Hall, 1998). Besides blocking behaviours, facilitating behaviours and reassurance are the most commonly cited communicative

reactions. Facilitating reactions are patient-centred reactions aimed at exploring the patient's point of view, e.g. open questions, active listening skills. Reassurance is a more complex response (Buchsbaum et al., 1986) because the effectiveness of reassurance depends on whether it adresses the patient's frame of reference. False reassurance or reassurance without first empathizing with the patient's concerns is experienced by the patient as minimalizing the situation while in fact the physician may intend to offer hope.

The main goal of this article is to empirically investigate the stress framework introduced by Ptacek and Eberhardt (1996). If, as they argue, communicative behaviours are the result of coping with the discomfort of the bad news transaction, different communicative behaviours will occur depending on the stressfulness of the situation. So, specifically, we want to investigate if communicative reactions in a bad news transaction are related to the stressfulness of the situation. Therefore we will first operationalize the stressfulness of a bad news transaction. Thereby we will apply the transactional stress and coping model of Lazarus and Folkman (1984) as Ptacek and Eberhardt suggested. In accordance with a transactional model of stress (Lazarus and Folkman, 1984) stress was conceptualized as the 'perceived difficulty' of the bad news situation to indicate that the experience of stress is largely cognitive in nature. According to the transactional model of stress, two perceptions lead to feelings of stress. Primary appraisal refers to the perception of the difficulty of the situation at stake. Secondary appraisal involves an evaluation of one's resources to deal with the situation.

Following Buckman (1984) and Espinosa, Gonzales-Baron, Zamora, Ordonez, and Arranz (1996), we also wanted to investigate if stress in the bad news consultation was related to expression of emotions. Also, we wanted to investigate possible gender effects. Roter and Hall (1998) have documented the differences in female and male physicians' communication patterns and concluded that female physicians are more patient-centred than their male colleagues. Likewise, Ptacek, Smith, and Dodge (1994) have found gender differences in reaction to an identical stressor under laboratory conditions, with women adopting a more emotion-focused coping strategy while men use a more problem-focused coping strategy.

Additionally, the state level of anxiety was measured as a global indicator of the situational stress during the performance of the simulated bad news transaction. Trait anxiety was measured one week before the bad news simulation as a baseline indicator of the stress level of the subjects. Summarizing, the purpose of the study was twofold: First, we investigated the stressfulness of 10 patient 'cues' in a standardized video-simulated bad news consultation by means of the perceived difficulty of the cues. Also, we explored if the perceived difficulty of the cues is related to state and trait anxiety. Also, we investigated if there are gender differences in the perceived difficulty of the cues. Second, we examined the relationship between perceived difficulty of the cues, expressed emotion and reaction to the cues. First, we investigated whether the communicative reactions were cue-dependent. Second, we explored whether the communicative reactions could be predicted by the perceived difficulty of the cue, gender, state and trait anxiety. On the basis of the results of this study we wanted to gain empirical evidence for a stress model to explain the communicative reactions in a breaking bad news situation. If the communicative reactions of the physician could be predicted by gender and/or experienced difficulties and/or anxiety, these results may have important implications for the future development of training modules.

Participants and procedure

Sample

The study was carried out at the Faculty of Medicine of the Limburgs University Centre in Diepenbeek, Belgium. A standardized video simulation of breaking bad news was presented to 88 third-year medical students as part of their compulsory curriculum, excluding self-selection. Of this sample 42 were male and 46 were female participants.

Participants had not received any training in doctor–patient communication and had no clinical experience. As such, we can assume that the respondents had not already adopted a certain communication style due to clinical experience which would predict their behaviour, as suggested by several authors (Butow et al., 1995; Humphrey et al., 1992; Taylor, 1988).

Procedure

The stressfulness of bad news delivery was measured in a standardized video-simulated bad news consultation. By using a standardized consultation, each student is facing the same medical situation and the same patient responses to the bad news. Using a standardized video-simulation also made it possible to select patient cues in advance and to interrupt the video simulation in order to examine cue responding of the participants. The video simulation was taken from Interact–Cancer, an interactive video programme on communication skills (Hulsman, Ros, Janssen, & Winnubst 1997).

Interact-Cancer presents video examples of medical consultations relevant in cancer care which were designed for teaching communication skills to medical specialists in a computer-assisted instruction programme. The content of the video examples are derived from medical practice and special care was undertaken to ensure the reality level of the cases presented.

For our video simulation, we employed the second module of Interact-Cancer, which provides a video example of breaking bad news. The video example shows a female patient who visits the surgeon because of suspicion of breast cancer. In the video example the medical consultation is followed from the first contact to the disclosure of the cancer diagnosis. The dialogue between physician and patient in the video example is spoken in Dutch. In order to examine the communicative reactions we randomly selected 10 'patient cues' in the video example to which the participants were asked to respond from the physician's point of view. A 'patient cue' is defined as a statement or question of the patient by which a patient may communicate their concerns. In order to assess the level of expressed emotion of the 10 patient cues, three independent raters were asked to rate the level of expressed emotion on a 5 point Likert-scale (1 = little expression of emotions; 3 = moderate expression of emotions; 5 = high expression of emotions, e.g. crying). The raters were instructed to make an overall judgement of the level of expressed emotion, taking into account verbal as well as non-verbal elements. Rank correlation coefficients were calculated to test the inter-rater reliability. It appears that there was a significant positive correlation between rater 1 and rater 2, who were both female (Spearman's rho = .636, p = .048). There was no significant correlation between rater 1 and rater 3 (Spearman's rho = .152, p = .676) and rater 2 and rater 3 (Spearman's rho = –.152, p = .676). Rater 3 was male. The lack of correspondence between male and female raters in the judgement of expressed emotion may indicate a gender difference in the appraisal of expressed emotions as discussed by Hall (1978, 1987). Table 1 presents the verbal description of the cues and the mean expressed emotion per cue.

The study was presented to the participants as an exercise in communication training. The participants were instructed to answer the questionnaire. Participants were not allowed to exchange opinions during the video presentation.

During the video simulation the participants were instructed to watch the bad news consultation and to respond to the cues. At each cue, the video was stopped and participants received

Table 1. Verbal description of the 10 patient cues and mean level of expressed emotion (range 1–5)

Cue		*Level of expressed emotion*
Cue 1:	'I had always suspected it, my mother and sister also had it.'	4.3
Cue 2:	'My mother died five years ago. She suffered awfully, she was very ill, and then the treatment, she couldn't do anything at all.'	4.6
Cue 3:	'And what will happen to my husband?'	3.6
Cue 4:	'Do you think I will have to have surgery?'	3
Cue 5:	'So, I have cancer.'	3.3
Cue 6:	'I have been through very much these last years and now this . . .'.	5
Cue 7:	'So, my husband will survive me after all.'	3.7
Cue 8:	'These last nights I could not fall asleep, I have been worrying a lot.'	1.6
Cue 9:	'I wonder how much time I have left.'	2.6
Cue 10:	When do I have to enter the hospital? In a few weeks? I can't wait that long, can I?'	3.6

two instructions. First, in order to examine the perceived difficulty of the cues, participants were asked to rate the difficulty of the cue on a scale from 1 to 4 (1 = very easy, 4 = very difficult). Participants were instructed to indicate how difficult it was for them to respond to each specific cue from the doctor's point of view. Second, after each cue participants received a multiple response set with five possible responses to the cues and were instructed to choose the response by which they would continue the consultation. After the video simulation, which took about an hour, participants were instructed to fill in the Dutch version (Ploeg, Van der Defares, & Spielberger, 1980) of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970) as an indicator of their global stress level. One week before the video-simulation exercise, participants had completed the trait component form of the State-Trait Anxiety Inventory to measure their baseline stress level (Spielberger et al., 1970).

Measures

Measurement of difficulty of cues

As mentioned above, participants were instructed to rate the difficulty of each cue on a four point rating scale ranging from 1 (very easy) to 4 (very difficult). The reliability as measured by Cronbach's alpha was .76.

Measurement of cue-responding

After measurement of the perceived difficulty, participants received a forced choice for each cue, including five possible reactions. The five reactions were formulated in accordance with our research questions. For each cue we formulated two blocking responses (doctor-centred) which ignore the concerns of the patient and inhibit patient disclosure, two facilitating responses (patient-centred) which facilitate patient disclosure and one, more complex response, which does not encourage patient disclosure but aims at giving the patient hope by focusing on the realistic positive elements of the situation. As blocking responses we selected: *ignoring* the cue by switching to another topic or probing the patient to dump the topic and *minimalizing* the content of the patient cue by denying or neglecting the severity of the situation. As facilitating responses we selected: *empathy* by a verbal statement by which one tries to understand the feelings or concerns expressed and *clarification* of the cue by asking for more information or encouraging patient disclosure of concerns. As a complex, mixed response we selected *reassurance* by presenting objective medical facts and giving hope. In order to create lifelike responses, examples of responses were derived from transciptions of breaking bad news consultations in a breast cancer clinic. Table 2 gives an example of a cue response set.

In order to prevent response bias the order of the response categories was alternated for each cue. To assess the reliability of this response scale two independent raters were asked to classify the responses in the five categories described above. Of the 50 responses (10 cues by 5 responses) 41 responses were rated in their corresponding categories by both raters, resulting in an inter-rater agreement of 82 percent. Additionally, we calculated Cohen's kappa and found a kappa coefficient of 0.70, which indicates substantial agreement (Landis & Koch, 1977). On the basis of these two coefficients we may conclude that the cue-response scale we developed is a reliable instrument to measure the cue responding behaviour according to the response categories defined above.

Table 2. Example of a cue response set

Cue 1: 'I had always suspected it, my mother and sister also had it.'
'Are you afraid you might have the same as them?' *(empathy)*
'Yes, do you have any other complaints such as feeling tired?' *(ignoring cue)*
'Let's not jump to conclusions, I'm sure this is nothing serious' *(minimalising)*
'What did they have? Can you tell me something more about it?' *(clarification)*
'But this doesn't mean that you will also have it. There are several types of breast cancer and only a few of them are genetic' *(reassurrance)*

Measurement of stress

State anxiety was measured as an overall indicator of stress using the 20-item form of the Dutch version (Ploeg et al., 1980) of the State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1970).

Trait anxiety was measured as a baseline indicator for stress one week before the video simulation during a regular compulsory course using the 20-item form of the Dutch version (Ploeg et al., 1980), of the State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1970).

Statistical analyses

Most of the statistics are descriptive, such as means and percentages. Differences between perceived difficulties of cues are tested by means of student *t*-tests. Associations between perceived difficulties of cues on the one hand and state anxiety level and communicative reactions on the other hand are tested by means of Chi-squared tests.

Associations between perceived difficulty of the cues, expressed emotion and communicative reactions are tested by calculating correlation coefficients. To compute the personal impact in relation to cue-impact on perceived difficulties, we nested the 10 cues hierarchically under our participants (see also Hox, Kreft, & Hermkens, 1991). The calculated intra-class correlation coefficient is a measure of personal impact in relation to the impact of cues on perceived difficulties. In contrast to the more traditional forms of analysis of variance where factors have 'fixed' effects, both persons and cues are considered to have 'random' effects. This is called a 'variance component' model (see Searle, Casella, & McCullogh, 1992). Finally, blocking behaviour was taken as a dependent variable in a series of logistic regression analyses (one for each cue). Gender, perceived difficulty, person related, and situational related anxiety were taken as independent variables and their odds ratios were computed.

Results

Difficulty of cues

Table 3 presents the mean difficulty levels for males, females and the overall sample for the 10 cues.

The overall mean for the 10 cues (PD tot Cue) is 2.29, which signifies a moderate perceived difficulty. Cue 6 (M = 2.73) and Cue 2 (M = 2.67) were perceived as the two most difficult cues. In cue 6 the patient expresses frustration and explains that the confrontation with this situation is very stressful because she has had many other problems in the past. In cue 2 the patient expresses fear of dying and refers to the suffering of her mother who died of breast cancer. Cue 8 (M = 1.63) and cue 4 (M = 1.60) are perceived as the easiest cues. In cue 8 the patient formulates a complaint, more specifically, difficulties

Table 3. Perceived difficulty (mean and standard deviation) of the 10 cues on a four-point rating scale ranging from 1 (very easy) to 4 (very difficult). Differences between male and female participants were tested with a student *t*-test (two-tailed)

Cue	*Total sample N = 83*		*Male N = 40*		*Female N = 43*		*p*
	M	*SD*	*M*	*SD*	*M*	*SD*	
Cue 6: I have been through very much.	2.73	.99	2.48	1.01	2.98	.91	.020*
Cue 2: Mother died of breast cancer.	2.67	.87	2.50	.88	2.84	.84	.078
Cue 9: I wonder how much time I have left.	2.67	.84	2.65	.80	2.70	.89	.799
Cue 1: Mother and sister also had it.	2.54	.85	2.33	.76	2.74	.88	.023*
Cue 5: So, I have cancer.	2.29	.88	2.23	.83	2.35	.92	.524
Cue 7: So, my husband will survive me after all.	2.28	.85	2.15	.77	2.40	.90	.188
Cue 10: I can't wait that long before entering hospital.	2.28	.85	2.17	.78	2.37	.90	.291
Cue 3: What about my husband?	2.20	1.00	2.23	.92	2.19	1.07	.860
Cue 8: I have difficulties with sleeping.	1.63	.69	1.50	.60	1.74	.76	.109
Cue 4: Will I have surgery?	1.60	.87	1.45	.88	1.74	.85	.124
PD tot Cue	2.29	.53	2.12	.44	2.44	.55	.004**

with sleeping and worrying. In cue 4 the patient asks a question regarding treatment options. It is important to note that the perceived difficulty was variable across the 10 cues.

Female participants (M = 2.44) rated the difficulty of the ten cues significantly higher than male participants (M = 2.12) (p = .004*). Except for cue 3, female participants perceived the cues systematically more difficult than male participants. This difference was significant for cue 6 (M male = 2.48; M female = 2.98, p = .020) and cue 1 (M male = 2.33, M female = 2.74; p = .23), which are two of the more difficult cues. In cue 6 the patient expresses her frustration over the situation and past problems; in cue 1 the patient refers to her mother and sister who had breast cancer.

The finding that female participants perceived the cues to be more difficult than male participants is in line with the results on the State-Trait Inventory. There appears to be a significant difference between male and female participants in state–anxiety, female participants reporting more situation-related anxiety than male participants (M female = 38.6; M male = 32.1, p = .006). There is no significant difference between male and female participants on trait-anxiety (M female = 42.3; M male = 36.6, p = .056). There is a significant correlation between trait and state anxiety for male participants (r = .418, p = .011*) but not for female participants (r = .211, p = .174).

Table 4 presents the relation between Total Mean Perceived Difficulty over the 10 cues (PD Tot Cue) and State and Trait Anxiety by means of contingency tables. On the basis of the scattergram there appeared to be no linear relationship between Perceived Difficulty and State and Trait Anxiety. For this reason, we applied non-parametric statistics to continuous variables.

There appears to be a significant relation between perceived difficulty and state anxiety (Chi-square = 10.33, df = 2, p = .006). Participants who perceived the cues as easier also reported low state-anxiety, while participants who perceived the cues as rather difficult reported moderate to high state-anxiety.

There appears to be no significant relationship between perceived difficulty and trait-anxiety (Chi-square = 3.235, df = 2, p = .198). This indicates that participants who perceived the cues as easy were not lower in trait-anxiety than participants who perceived the cues as difficult, and participants who perceived the cues as difficult are not necessarily high in trait-anxiety. These results indicate that the perceived difficulty of the cues is more situation-related than trait–related.

A variance-component analysis was performed to explore if the variance of the perceived difficulty of the cues was more person-dependent or cue-dependent. The variance between the participants was 15.8 percent (var B = 0.144) while the variance within the participants was 82.2 percent (var W = 0.767 of the

Table 4. Relation between summarized perceived difficulty and state anxiety and trait anxiety

		State Anxiety			*Total*	*Trait Anxiety*			*Total*
		Low	*Moderate*	*High*		*Low*	*Moderate*	*High*	
Perceived difficulty	*Low*	21	12	11	44	13	23	7	43
		47.7 %	27.3 %	25 %	100 %	30.2 %	53.5 %	16.3 %	100 %
	High	5	16	15	36	13	13	11	37
		13.9%	44.4 %	41.7 %	100 %	35.1 %	35.1 %	29.7 %	100 %
	Total	26	28	26	80	26	36	18	80
		X^2 = 10.33, df = 2, p = .006*				X^2 = 3.235; df = 2, p = .198			

Low State Anxiety = 0–28
Moderate State Anxiety = 29–40
High State Anxiety = 41–73

Low Trait Anxiety = 0–34
Moderate Trait Anxiety = 35–43
High Trait Anxiety = 45–66

Low Perceived Difficulty = PD < 2.20
High Perceived Difficulty = PD ≥ 2.20

total variance 0.811), resulting in an intra-class correlation coefficient of 0.158. This signifies that the perceived difficulty is more situation–related than person-related.

In order to investigate the relationship between perceived difficulty and communicative reactions we first explored if the communicative reactions were cue dependent by means of Chi-square tests per cue. The frequency distribution of the communicative reactions per cue and Chi-square tests are presented in Table 5.

The results indicated that for 7 of the 10 cues the observed pattern of communicative reactions is significantly different from that which can be expected by chance. This signifies that the reactions were cue-dependent. Blocking reactions occurred most frequently in reaction to cue 7, cue 4, and cue 2. Facilitating responses occurred most frequently in response to cues 8, 6 and 5. Reassurance occurred most frequently in response to cues 9, 10 and 1. Subsequently, we calculated Pearson correlation and rank correlation coefficients to explore the association between perceived difficulty, expressed emotion and communicative reactions of the 10 cues. Perceived difficulty correlated significantly with expressed emotion ($r = .702$; p .05). There was no significant relationship between perceived difficulty of the cues, expressed emotion and the communicative reactions.

To test our main research question, if blocking reactions can be understood as a coping effort to deal with the stressfulness of the situation, we first dichotomized the communicative reactions in blocking reactions versus non-blocking reactions. Subsequently we performed a logistic regression analysis per cue to verify if the communicative reaction could be predicted on the basis of gender, perceived difficulty of the cue, and person-related or situation-related anxiety.

Eight out of ten logistic regression analyses did not show any significant association with the probability of blocking behaviour. Only gender in cue 2 (OR 3.9 in favour of women) and perceived difficulty in cue 4 (OR 1.9) showed a statistically significant association with the probability of blocking behaviour.

Discussion

In this study we focused on cue-responding behaviour in a simulated bad news consultation. The purpose was to investigate the transactional stress hypothesis (Ptacek & Eberhardt, 1996) to explain the variability of communicative reactions during a bad news transaction.

Our first finding concerns the perceived difficulty of the 10 pre-selected cues by which we meant to measure the stressfulness of the video bad news simulation. Our results indicate that the perceived difficulty of the cues differed from cue to cue during the bad news transaction. The perceived difficulty of the cues does not appear to be related to the order in which the cues were presented. The last presented cues were not perceived to be easier than the first presented cues, which means that the participants did not habituate to the cues.

Inspection of the cues perceived as most difficult reveals that these cues have a strong emotional content on a verbal and a non-verbal

Table 5. Frequency distribution of communicative reactions per cue $n = 82$

Cue ordered by perceived diff.	X^2		*Blocking*		*Facilitating*		*Reassurance*		*Total*	
Cue 6	6.13	*	31.7	(26)	57.3	(47)	11.0	(9)	100%	(82)
Cue 2	4.79	n.s.	36.6	(30)	50.0	(41)	13.4	(11)	100%	(82)
Cue 9	44.83	***	11.0	(9)	36.6	(30)	52.4	(43)	100%	(82)
Cue 1	29.78	***	6.1	(5)	51.2	(42)	42.7	(35)	100%	(82)
Cue 5	3.43	n.s.	19.5	(16)	53.7	(44)	26.8	(22)	100%	(82)
Cue 7	89.22	***	75.6	(62)	18.3	(15)	6.1	(5)	100%	(82)
Cue 10	31.7	***	13.4	(11)	39.0	(32)	47.6	(39)	100%	(82)
Cue 3	0.48	n.s.	28.0	(23)	52.4	(43)	19.5	(16)	100%	(82)
Cue 8	65.72	***	3.7	(3)	93.9	(77)	2.4	(2)	100%	(82)
Cue 4	46.07	***	59.8	(49)	39.0	(32)	1.2	(1)	100%	(82)
			28%	(234)	50%	(403)	22%	(183)	100%	(820)

level. Our findings confirm a significant positive relationship between perceived difficulty of the cues and level of expressed emotion. The content of the cues which are perceived as easiest, on the other hand, refers to the utterance of complaints and questions regarding treatment which can be more easily situated on the instrumental dimension of the consultation. These results are in line with Buckman (1984), who argues that physicians' difficulties in breaking bad news is a matter of not knowing how to deal with the emotional realm of the transaction. Ford, Fallowfield, and Lewis (1994) also found evidence that physicians were not at all successful at reading the anxiety of their patients, and experienced difficulties in allowing the patient to express emotions and fears.

In terms of the transactional model of stress, Buckman (1984) and Ford et al. (1994) both report results which refer to the secondary appraisal of the bad news consultation. In the secondary appraisal process participants evaluate the appropriateness of their skills to deal with the situation. Our results regarding the perceived difficulty of the cues, on the other hand, refer to the primary appraisal process, where the participants evaluate the difficulty of the situation. The fact that we found a high positive relationship between level of expressed emotion on the patient's side and perceived difficulty on the doctor's side can be interpreted as follows. Our findings suggest that signs of distress on the patient's side lead to signs of distress on the doctor's side. Our findings also suggest that patient cues, which apply to the instrumental domain of the consultation, are perceived as less difficult than emotional cues. We hypothesize that cues which are lower in level of expressed emotion elicit less distress because the doctor is able to respond according to his/her task-oriented frame of reference. For cues with a strong emotional content, doctors lack a frame of reference due to the biomedically-oriented curricula in medical education (Batenburg, 1997).

Consequently, when confronted with emotional cues the doctor gets distressed and he/she lacks the appropriate skills to handle these emotions, resulting in the patient feeling misunderstood. These results are in line with Maguire, Booth, Elliott, and Jones (1996), who reported that physicians were more worried and stressed after a communication training which focused on teaching patient-centred facilitating communicative behaviours. It appeared that the more effective they became in eliciting feelings, the more worried they became of exploring patients' feelings further because this had negative effects for themselves. Put this way, it is quite understandable that the level of distress can vary within one bad news consultation according to the perceived difficulty of the patient cues and the perceived efficacy of the caregiver handling these cues.

A second important finding of this study is that female participants perceived the cues systematically as more difficult than male participants. This result can be explained in different ways: first, it is possible that female participants identify themselves more easily with the female patient in the video and this makes them more sensitive for the presented cues. Second, it is possible that, in terms of Bensing (1997), male participants overestimate their communication skills more than female participants. In terms of the transactional model this would signify that the primary appraisal process of male participants is different from female participants. In turn, male participants would not get distressed in response to a cue of patient distress while female participants perceive patient distress as difficult. These results are in line with recent developments in stress-coping research on gender differences. De Ridder (2000) notes that gender differences in coping may be understood as differential cognitive strategies in the appraisal stage of the coping process. Recent research on appraisal strategies shows that women are more reactive to stressful situations than men because they focus their attention on the potential dangers of the situation while men make more use of cognitive denial and avoidance strategies. To put it in Bensing's words: they underestimate the problem. These initial avoidance reactions of male participants also prevent adequate reactions to the stressor; to cite Bensing: 'they overestimate their skills'. Our results replicate De Ridder and Te Vaarwerk (1995) who also demonstrated striking gender differences in the appraisal of the same stressors, with women reporting significantly higher scores than men. Likewise, Ptacek et al. (1994) observed gender differences in reactions to an

identical stressor under laboratory conditions, with women adopting more emotion-focused coping reactions while men used more problem-focused coping reactions. Again, the transactional theory of stress and coping and the recent formulations concerning the role of appraisal as a determinant of differential coping in male and female participants provides an interesting framework to explain the gender differences in our results.

The results concerning perceived difficulty are further confirmed by our results on the Trait–State Anxiety Inventory. Female participants reported more situation-related anxiety than male participants, and perceived difficulty appeared to be related to state anxiety but not to trait anxiety. Participants who perceived the cues as easier also reported low state anxiety, while participants who perceived the cues as rather difficult reported moderate to high state anxiety. These results indicate that our operationalization of the stressfulness of the presentation of the cues by means of 'perceived difficulty' is valid.

In summary, our results suggest that perceived difficulty is situation-related and gender-related: emotional cues are more difficult than instrumental cues, and women appear more sensitive to stressfulness than men. Both findings can be explained in terms of a transactional approach of stress and coping (Lazarus & Folkman, 1984). Now, how did our participants handle or cope with the different cues? Is the stress and coping paradigm of Lazarus and Folkman also applicable to the cue–responding behaviour? Can the different communicative reactions be explained as the result of situation-dependent coping reactions that are related to the stressfulness of the cues?

Concerning the reactions to the cues our results demonstrate that the reactions are intra-individually variable and cue-dependent. This implies that patient-centred and doctor-centered communicative behaviours may alternate within one consultation and questions the relevance of the concepts of doctor-centred and patient-centred communication styles as mentioned in the literature (Humphrey et al., 1992; Butow et al., 1995). If the stress-coping paradigm can be applied to explain communication behaviour we would rather view communication behaviour as the result of an interactive process of the person in relation to a specific situation. In this sense doctor-patient communication styles may be less trait-related than suspected and depend on the ability of the individual to handle different types of cues. However, we were not able to find a correlation between perceived difficulty, expressed emotion and communicative reactions.

Finally, on the basis of our results concerning perceived difficulty and reaction to the cues, we explored the relationship between perceived difficulty, gender, person-related and trait-related anxiety and blocking versus non-blocking behaviour. Following a stress coping paradigm we hypothesized that avoidant, blocking behaviour would be associated with more difficult cues while non-blocking behaviour would be related to easier cues. The results of the logistic regression analysis failed to provide empirical support for the hypothesized relationship between perceived difficulty and reaction to the cues. This means that on the basis of our results we can conclude that: (1) the stressfulness of the cues is related to gender and is cue-dependent; (2) there is an association between perceived difficulty of the cues and expressed emotion; and (3) the communicative reactions to the cues are cue–dependent. The fact that our results do not confirm the relationship between perceived difficulty and reaction to the cues may be due to the following: (1) It appears that 50 percent of the reactions are facilitating, which may indicate that participants have answered in a socially desirable way; (2) if we fail to elicit blocking behaviours in a bad news simulation, it may signify that although participants may get stressed by a specific cue, they subsequently diminish the stressfulness of the cue by reminding themselves that it is only an experiment and not real life.

This already points to one serious limitation of the study. In order to control for several variables we developed a bad news simulation that questions the generalizability of our findings to the daily practice of bad news. Also, we tested the communicative reactions of medical students without any clinical experience and who had not yet developed a certain communication style. It would be interesting to replicate this simulation with physicians who are experienced in breaking bad news. Finally, our operationalization of communicative reactions

is questionable. Participants were instructed to react on the basis of a forced choice questionnaire that may not necessarily represent actual communication reactions.

However, the strength of this study lies in the fact that we have attempted to empirically test a transactional approach to stress and coping to explain the communication difficulties in a breaking bad news situation. The findings of this study suggest that training in patient-centred communication should also focus on reducing the stressfulness of patient-centred communication for the caregivers, as Maguire (1996) has suggested. Our results confirm the literature that emotions are stressful for the caregiver. This is an important finding because it gives an indication why patient-centred medicine does *not* work. If listening to patients is stressful for caregivers and not listening is reinforced in terms of being less stressful for the caregiver, this may explain why the ideal model of breaking bad news appears so difficult to put into practice.

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