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# Explicit Prognostic Information and Reassurance About Nonabandonment When Entering Palliative Breast Cancer Care: Findings From a Scripted Video-Vignette Study

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## ABSTRACT

### Purpose

When discussing the transition to palliative care for patients with breast cancer, oncologists have to find a balance between giving explicit information while not overwhelming patients and being realistic while remaining hopeful. It is unclear whether patients prefer more or less explicit prognostic information, and reassuring patients that they will not be abandoned may provide realistic hope. We assessed the effect of explicit prognostic information and reassurance about nonabandonment at the transition to palliative care.

### Patients and Methods

An experimental 2 X 2 study was used. Four scripted videos of a bad news conversation were created that differed only in the level of “explicitness of prognosis” and “reassurance about nonabandonment” (high v low). Patients with and survivors of breast cancer (n = 51) and healthy women (n = 53) watched the video-vignettes. The effects of the different communications on participants’ anxiety, uncertainty, self-efficacy, and satisfaction were assessed by using multilevel analyses that explored the moderating influences of monitoring/blunting scores.

### Results

The highly explicit/highly reassuring video yielded the most positive outcomes, and the less explicit/less reassuring video, the most negative ( $P \leq .05$  for all outcome measures except anxiety). The main effects found were that explicitness and reassurance decreased participants’ uncertainty ( $P < .001$  and  $P = .002$ , respectively) and anxiety (only after reassurance;  $P = .001$ ) while increasing self-efficacy ( $P = .004$  and  $P < .001$ , respectively) and satisfaction ( $P$

< .001 and  $P < .001$ , respectively). High monitors seemed least positive, mainly following explicitness.

#### Conclusion

Explicit prognostic information may lead to better outcomes than general information. In addition, reassurance about nonabandonment might provide realistic hope but should be lived up to. More research is needed to translate these findings into clinical care.

## INTRODUCTION

Bad news such as the transition to palliative care can evoke many feelings in patients, including uncertainty<sup>1-4</sup> and anxiety.<sup>2,3</sup> Meanwhile, patients have two distinct needs in such situations: to “know and understand” and to “feel known and understood.”<sup>5,6</sup> The provision of information and empathy (ie, instrumental v affective care<sup>5,7</sup>) can satisfy these needs and influence distinct outcomes<sup>8</sup> such as uncertainty and anxiety. Meanwhile, oncologists have to walk the fine line between giving complete information while not overwhelming patients<sup>9</sup> and being realistic while remaining hopeful.<sup>10-12</sup> Most patients want information about their life expectancy,<sup>13,14</sup> but the level of explicitness they desire varies.<sup>15</sup> Patients often request full disclosure,<sup>16,17</sup> but some prefer to remain partly ignorant about their life expectancy.<sup>16,18,19</sup> It is still unclear whether numerical data or qualitative words are preferred when discussing future expectations.<sup>16,20</sup> Unsurprisingly, the prognostic part of consultations is often problematic.<sup>20-22</sup> Because not all patients want to know everything,<sup>10,23</sup> oncologists sometimes avoid providing statistical information, regardless of patients’ preferences.<sup>24-26</sup> Next, patients have a need for hope,<sup>2,27-29</sup> which can mainly be seen as an affective need. In a previous qualitative study, we found that participants were “afraid they would be left alone” when entering palliative care, and being reassured that they would not be abandoned might provide hope.<sup>15</sup> Indeed, patients want—and thereby may experience hope—to be sure that they will be continuously guided in their care trajectory<sup>30</sup> and that the relationship with their oncologist will continue.

<sup>31</sup> Moreover, they want a discussion of their prognosis to include a commitment about nonabandonment.<sup>32</sup> Authors<sup>33-35</sup> and guidelines<sup>36,37</sup> have noted how important being taken care of is to patients but it has not often been mentioned as an essential component when delivering bad news. Meanwhile, patients’ coping styles might influence their communication preferences. According to the coping literature, people in threatening situations usually choose between approach and avoidance.

<sup>38</sup> In the medical consultation context this means seeking or avoiding information. This is what the coping styles of monitoring and blunting aim to measure.<sup>39-41</sup> High monitors are found to have high needs for information<sup>42-44</sup> and for emotional support,<sup>42,43,45</sup> and high blunters prefer to avoid threatening information.<sup>39,40</sup> However, investigation is warranted into the influence of these coping styles at the transition to palliative care.

The aim of this study is to examine the effect of more versus less explicit prognostic information and reassurance about nonabandonment at the transition to palliative

care. We hypothesize that more explicit prognostic information (instrumental communication) will decrease mainly uncertainty (an instrumental outcome) but also anxiety (an affective outcome), especially for high monitors but not for high blunders. Moreover, we expect that reassurance about nonabandonment (affective communication) will decrease mainly anxiety but also uncertainty, especially for high monitors. Both explicitness and reassurance might also positively influence related measures such as self-efficacy (since it can be argued that a life-limiting diagnosis shatters this belief) and satisfaction (a widely assessed and influenced outcome of patients' perceptions of care).

## **PATIENTS AND METHODS**

### **Videotape Development**

An experimental study with a 2X2 design was used to investigate the two above-mentioned communication elements. Four scripted video-vignettes were developed of a consultation in which an oncologist discussed the transition to palliative care with a female patient who had breast cancer. These video-vignettes were identical in content and communication, but the "explicitness of prognosis" and "reassurance about nonabandonment" varied systematically between the vignettes (high or low; Table 1). The scripts and manipulations were based on a qualitative study that focused on the abovementioned dilemmas,<sup>15</sup> the biomedical/communicative expertise of the authors, and videos of bad news consultations and prior scripted studies. An introductory video was developed in which the video-patient introduced herself and expressed her feelings about the upcoming consultation, which aimed to increase participants' empathic involvement. To ensure the scripts' internal/ external validity, both lay people (breast cancer survivors, healthy women) and experts (oncologists, communication experts) were involved in creating the written and role-playing scripts. Professional actors role-played the scripts. Detailed information about this process and the final scripts is provided elsewhere<sup>46</sup>; the exact manipulations are displayed in Table 2.

[TABLE 1] [TABLE 2]

### **Participants**

Patients with and survivors of breast cancer and healthy women age 18 to 65 years, with sufficient command of Dutch, were recruited through patient advocacy organizations, health-related Web sites, and message boards and by using snowball procedures. Ethnic minority women were recruited through a patient advocacy organization and social workers (using their network).

Women participated as analog patients (APs); they viewed the videos while putting themselves in the shoes of the video-patient. The validity of this approach is documented.<sup>47</sup> On the basis of a previous study that used a similar design,<sup>48</sup> a sample size of 93 was required to give 80% power to detect two main effects and one interaction effect using a two-sided  $\alpha=.05$  and an interclass correlation coefficient (ICC) of 0.20. To control for order effects, we used complete counterbalancing; we therefore aimed to include 96 women (24 X 2 X 2).<sup>49</sup>

## **Procedure**

The study was approved by the Medical Ethics Committee of the University Medical Center of Utrecht. Women's background characteristics were assessed before the experiment. Groups of one to seven women were set up separately for patients/survivors and healthy women. After informed consent was obtained, APs were asked to identify with the video-patient. First, they watched the introduction video and the first part of the bad news consultation.

Then they watched the four different videos. Anxiety was assessed before each video and all outcome measures were completed after each video. A distraction task was provided between the videos (looking at an aquarium while listening to background classical music).

## **Background Measures**

We measured the following characteristics: demographic variables, health status (Dartmouth COOP [from the Dartmouth Primary Care Cooperative Information Project known as the "CO-OP Project"] functional health assessment charts/World Organization of National Colleges, Academies, and Academic Associations of General Practices/Family Physicians [COOP/ WONCA]<sup>50</sup>), trait anxiety (State-Trait Anxiety Inventory [STAI]-Trait<sup>51</sup>), optimism (Life Orientation Test-Revised [LOT-R]<sup>52</sup>), whether participants had experiences with loved ones receiving a life-limiting cancer diagnosis ("similar experiences"), and monitoring/blunting coping styles (Threatening Medical Situations Inventory [TMSI] shortened version.<sup>44</sup> Blunting was measured with the five items used in the analyses by Onget al<sup>44</sup> but was recoded for all analyses to a six-item scale that facilitated comparison with the six-item monitoring scale). Trait anxiety,<sup>18,53</sup> optimism,<sup>54</sup> and similar experiences<sup>15,55</sup> were measured because they might influence communication preferences.

## **Main Outcome Measures**

Uncertainty (0 to 100 self-created visual analog scale [VAS], ranging from "very certain" to "very uncertain") and anxiety (STAI-State<sup>51</sup>) were main outcome measures. Cronbach's alphas for the STAI-State before and after the video were .90 and .84, respectively. The difference score between the prevideo and postvideo STAI-State score was used in all analyses. To lessen the burden of filling in numerous questionnaires in the groups with immigrant women, the STAI-State beforehand was measured only before the first video. This prescore was used to determine difference scores for each video.

## **Secondary Outcome Measures**

Secondary outcome measures were self-efficacy (0 to 100 self-created VAS, ranging from very little to very great belief in ability to deal with the future) and satisfaction (Patient Satisfaction Questionnaire [PSQ]<sup>56</sup>).

The reliability of the PSQ was 0.90 in this sample. The success of the manipulations—how explicit the prognostic information was perceived as being and how reassuring the oncologist was (about nonabandonment)— was measured by using 1 to 10 scales ("not at all" to "very"; not measured in the ethnic minority groups).

## Analyses

First, independent samples *t* tests and  $\chi^2$  tests were performed to compare the background characteristics of patients/survivors and healthy women.

Variables that differed between the two groups were included in step 4 to determine their effect on outcome measures. For subsequent analyses—as participants watched four videos—random intercept linear multilevel regressions were applied, consisting of videos (level 1) nested in participants (level 2).

Second, we analyzed whether the data for healthy women and patients/survivors could be pooled. Third, the manipulation successes were determined.

Fourth, the influence of the following demographic characteristics on outcome measures was assessed, because they could have influenced communication preferences: age, trait anxiety, optimism, education, similar experiences, and ethnicity. The three variables with the strongest effects on outcomes were entered as (centered) covariates in the subsequent models. This number was chosen because of power constraints. Fifth, the effect of the four videos on all outcome measures was determined. Bonferroni post hoc tests were applied to determine which videos influenced outcomes significantly differently.

Sixth, the main and interaction effects of explicitness and reassurance were calculated (interaction effects were eliminated from the model when not significant).

Last, the moderating influences of monitoring and blunting scores on the effects of the four videos and the effects of explicitness and reassurance were explored. To do that, interaction effects between monitoring/ blunting and the videos/explicitness/reassurance were created. For steps 6 and 7, we transformed all outcome measures into Fisher *z* (for normalization).

Analyses were conducted by using Stata 12.0 with two-sided significance testing at  $P \leq .05$ .

## RESULTS

### Sample

Demographic characteristics of the 51 patients/survivors and 53 healthy women who participated in the study largely overlapped (Table 3). That said, patients/survivors were older ( $P < .001$ ) and their health status was poorer ( $P = .003$ ) compared with healthy women.

### Pooling of Data

Patients/survivors and healthy women did not respond differently to the four videos (Appendix Table A1, online only). The groups were therefore pooled for the main multilevel models, and health status was entered as an additional possible covariate.

### Manipulation Check

The manipulations succeeded. In the highly explicit videos, the prognosis was evaluated as being more explicit than in the less explicit videos (high: mean, 5.96; SE, 0.19; low: mean, 3.69; SE, 0.19;  $P < .001$ ).

The same results applied to the highly versus less reassuring videos (high: mean, 7.22; SE, 0.18; low: mean, 4.25; SE, 0.18;  $P < .001$ ).

## **Covariates**

The three background characteristics with the strongest effects on outcome measures were trait anxiety ( $P = .004$ , self-efficacy), optimism ( $P=.009$ , self-efficacy), and education ( $P<.001$ , anxiety).

These variables were entered as (centered) covariates in the subsequent models. The following characteristics (not included) also influenced outcomes: similar experiences ( $P=.027$ , anxiety) and ethnicity ( $P=.026$ , anxiety;  $P=.027$ , self-efficacy).

## **Effects of the Four Videos**

Controlled multilevel models showed that the videos had an effect on all the outcome measures ( $P<.02$ ) but no order effects (data not shown). The lowest scores for uncertainty and anxiety along with the highest scores for self-efficacy and satisfaction were obtained when the oncologist was both explicit and reassuring. In contrast, the most negative reactions were found following the less explicit/less X video-vignette. Bonferroni post hoc tests revealed that these differences were significant ( $P \leq .05$ ) for all outcome measures except for anxiety ( $P = .06$ ).

Furthermore, the combination of explicitness and reassurance was better evaluated than either one alone. In the highly explicit/less reassuring condition, poorer results were found for uncertainty ( $P=.01$ ), self-efficacy ( $P<.001$ ), and satisfaction ( $P<.001$ ). After the highly reassuring/less explicit video, APs were more uncertain ( $P<.001$ ) and less satisfied ( $P=.002$ ; Table 4).

## **Main Effects and Interaction Effects of Explicitness and Reassurance**

To illustrate the individual and combined contributions of explicitness and reassurance, controlled multilevel analyses were determine the main effects and interaction effects.

### **[TABLE 3]**

Only main effects were found. Explicitness decreased APs' uncertainty ( $P < .001$ ) but not anxiety ( $P = .562$ ) while increasing self-efficacy ( $P = .004$ ) and satisfaction ( $P<.001$ ). Reassurance decreased uncertainty ( $P=.002$ ) and anxiety ( $P = .001$ ) while increasing self-efficacy ( $P \leq .001$ ) and satisfaction ( $P\leq.001$ ; Table 5).

## **Moderating Influences of Monitoring and Blunting**

Exploratory analyses showed that, compared with low monitors, high monitors were more uncertain ( $P = .031$ ) and anxious ( $P = .037$ ) after seeing the highly explicit/highly reassuring video and less anxious ( $P=.045$ ) after the less explicit/highly reassuring video. Explicit prognostic information made them more uncertain ( $P = .007$ ) and anxious ( $P = .007$ ) and less self-efficacious ( $P = .012$ ) and satisfied ( $P = .048$ ). Blunting scores had no moderating influences (Table 6).

## **DISCUSSION**

By using a scripted video-vignette design, the effects of explicit prognostic information and reassurance about nonabandonment at the transition to palliative breast cancer care were assessed. Our results showed that (a combination of) explicit

prognostic reassurance about nonabandonment was most positively evaluated by patients with and survivors of breast cancer and healthy women.

[TABLE 4][TABLE 5]

Explicit prognostic information yielded better outcomes than general information, which corresponds to clinical patients' preferences for full disclosure.<sup>16,57</sup> Precise information decreased women's uncertainty while increasing self-efficacy. Clinical patients often report that uncertainty is worse than the certainty bad news creates.<sup>58,59</sup> Whereas excessively vague information increases distress,<sup>14,60</sup> precise information about their condition helps patients plan<sup>16</sup> and make treatment decisions.<sup>61,62</sup> The importance of unambiguous information is stressed by a recent finding that many patients receiving palliative chemotherapy wrongly believe in its curative potential.<sup>63</sup> Moreover, our results showed that three affective statements giving reassurance about nonabandonment influenced anxiety and other outcomes. Indeed, the certainty of continuing care seems to be a hopeful theme for clinical patients.<sup>30,31</sup> Patients want to be looked after,<sup>31</sup> which was also described as hope-giving in our previous study.<sup>15</sup> Emphasizing continuing care may thus be a promising way to satisfy patients' desire for hope while remaining realistic.

Interestingly, reassurance decreased anxiety and uncertainty, while explicitness decreased only uncertainty. Anxiety, an affective measure, may be insensitive to instrumental communication,<sup>64</sup> which also explains our borderline significant differences for anxiety when comparing effects of the vignettes with Bonferroni tests.

Conversely, in addition to decreasing anxiety, reassurance can evoke the feeling of unconditional guidance,<sup>30</sup> which might decrease uncertainty and increase perceived self-efficacy. Affective communication does indeed influence several outcomes<sup>65</sup> including self-efficacy.<sup>66</sup> Finally, satisfaction was influenced by reassurance and explicitness, possibly because the PSQ includes affective and instrumental items, both influencing satisfaction.<sup>67</sup> So, although explicitness and reassurance have distinct influences, the combination seems most promising in bad news consultations.

Contrary to our expectations, high monitors seemed to benefit least from these communications. This result corresponds with previous studies, which concluded that high monitors are often less satisfied with information than low monitors.<sup>68,69</sup>

However, other studies concluded that high monitors are generally the ones benefitting the most from detailed information.<sup>70,71</sup> The question remains which communication style yields the best outcome for high monitors when they are entering palliative care.

Our findings have implications for clinical care. The explicit prognostic discussion, including statistical information, yielded better results than the general discussion. This might be helpful for oncologists who are reluctant to discuss statistical information because of its uncertain utility for and effect on individuals.<sup>72,73</sup> We found that stressing the difficulty of predicting an individual's survival, emphasizing that numbers are based on large groups, and that there are negative and positive exceptions might be a beneficial approach when discussing prognosis in detail. This corresponds to recently proposed strategies, which focus on stressing the impossibility of predicting where a patient will fall on a statistical survival curve<sup>74</sup> or

mentioning outliers next to means.<sup>75,76</sup> Indeed, patients who prefer openness about their prognosis appreciate the emphasis on the uncertainty in the statistics.<sup>20,77</sup> However, a minority of patients prefer to be left partly ignorant about their prognosis,<sup>16,18,19</sup> which emphasizes the importance of determining patients' information needs before discussing the prognosis.

In our study, the patient asked for explicit or general prognostic information and the oncologist checked her wish for explicitness before providing this information, which is in line with current recommendations<sup>78,79</sup> and our previous study.<sup>15</sup> Because we did not manipulate patient communication in this experiment, we cannot draw any conclusions on how oncologists should respond to patients who do not prompt the doctor for information. It is worth noting that our results suggest that high monitors, who often ask many questions,<sup>44,68</sup> might not be the ones who benefit the most after receiving explicit life-limiting prognostic information (and reassurance).

#### [TABLE 6]

After our positive results regarding reassurance about nonabandonment, oncologists may decide to implement such statements to] offer realistic hope. Promising not to abandon patients is one thing; however, doing so is another. Oncologists, who seem increasingly aware of the importance of nonabandonment,<sup>31,74,80</sup> may eventually fail this task, often because the patient is referred to hospice care.<sup>31</sup> Han and Arnold<sup>81</sup> suggested that patients' primary physicians should not withdraw after referring to hospice care, but if it becomes necessary, they should discuss their withdrawal with patients beforehand.

Several national cancer organizations<sup>82-85</sup> advise that general practitioners should have a (continuous) role in palliative care. Others point toward the positive effects of introducing palliative care teams early on in this phase.<sup>86-88</sup> Implementation of such initiatives might benefit patients who feel abandoned when familiar care providers are suddenly unavailable.<sup>30,74</sup> So, although there is a need to educate future oncologists about the potential power of expressing nonabandonment,<sup>89</sup> there is first and foremost a need to determine how this promise can best be given and kept in busy clinical daily life.

This study has limitations. First, we conducted an experimental study with APs, so clinical patients in this situation might respond differently. Still, in a recent systematic review, we found that APs' perceptions are valid,<sup>47</sup> and the perceptions of patients with and survivors of cancer versus healthy women overlapped in this study. Second, participants viewed four videos varying slightly in communication.

Although we varied the order of viewing the videos, and a pilot study indicated that participants could focus on four videos, a habituation effect may have occurred for some individuals. Third, because of our recruitment methods (eg, through advocacy organizations), our sample might be biased, and less-involved women may be underrepresented.

Fourth, experimental designs inherently reduce the complexity of clinical interactions, which stresses the importance of clinical follow-up studies. Last, the limited sample size of our study hampered the analysis of the influence of several background characteristics such as ethnicity.

Future studies might focus on the most beneficial and feasible approach to discussing statistical information from the perspective of patients in clinical care. More research is needed on how nonabandonment can best be promised (and how that promise can

be kept) in palliative care. Furthermore, studies into other types of individualized reassurance (eg, regarding pain control) would be worthwhile. Specific attention should be paid to the influence of background characteristics on communication needs and evaluations, starting with the influence of monitoring scores.

In conclusion, although more research is needed to translate our findings into clinical care, the results presented once again underline the power of communication. In the current climate of personalized care, explicit and reassuring information might be beneficial for most patients, although investigating and acting on individual's specific preferences should never be neglected.

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**TABLE**

<b>Table 1.</b> Communication in the Four Video-Vignettes			
Video 1	Video 2	Video 3	Video 4
Explicit+	Explicit+	Explicit–	Explicit–
Reassurance+	Reassurance–	Reassurance+	Reassurance–

NOTE. Plus and minus signs indicate high and low, respectively.

**Table 2.** Exact Manipulations Used in the Four Different Videos

Manipulation	Exact Content
Explicit high	<p>Patient: Okay, so how long have I got?</p> <p>Oncologist: Your life expectancy?</p> <p>Patient: Yes, I would like to know that as specifically as possible.</p> <p>Oncologist: That's very difficult. But I can give you some concrete numbers and averages. Would you like me to discuss these with you?</p> <p>Patient: Yes.</p> <p>Oncologist: When we look at what is known from studies with patients with your type of cancer cell and your metastases, 50% of the patients are still alive after 2 years. So, half the people will die within 2 years, while the other half will live longer than 2 years. Some people might only live for half a year. But others will live much longer, maybe as much as 4 years.</p> <p>Patient: Yes, I understand that. So, you can't predict which group I belong to?</p> <p>Oncologist: No.</p>
Explicit low	<p>Patient: Well, how long have I got?</p> <p>Oncologist: Your life expectancy?</p> <p>Patient: Yes, as a rough idea. Do you know that in general terms?</p> <p>Oncologist: That's very difficult to predict, because it can differ from person to person. You do have a very serious disease, which will limit your life expectancy. That is the only thing we can say for sure. There are women who live for quite a long time with the type of breast cancer you have, and there are women who live less long. The comments you often see on television or read in magazines, about "you only have so long to live" aren't realistic, because we do not know that in any individual case . . . So, no, I don't know how it will be for you.</p> <p>Patient: Yes, I understand that. That's something you can't predict.</p> <p>Oncologist: No.</p>
Reassurance high	<ol style="list-style-type: none"> <li>1. Oncologist: But whatever action we do take, and however that develops, we will continue to take good care of you. We will be with you all the way.</li> <li>2. Oncologist: We will do and will continue to do our very best for you.</li> <li>3. Oncologist: And whatever happens, we will never abandon you. You are not facing this on your own.</li> </ol>
Reassurance low	No fragments were added.

**Table 3. Demographic Characteristics of Participants**

Characteristic	Patients With and Survivors of Breast Cancer (n = 51)		Healthy Women (n = 53)		P	t	$\chi^2$	
	No.	%	Mean	SD				No.
Age			52.03	8.50	41.35	14.49	<.001	4.56
Health status (possible range: 7-35; higher is poorer)			17.02	5.37	13.75	5.38	.003	3.10
Trait anxiety (possible range: 20-80)			37.02	8.84	38.49	9.28	.41	-.83
Optimism (possible range: 6-30)			22.53	3.89	22.74	2.93	.76	-.31
Monitoring (possible range: 6-30)			20.45	4.3	19.58	4.40	.31	1.01
Blunting (possible range: 6-30)			18.47	4.11	17.48	4.60	.25	1.16
Marital status							.43	
Married	28	55						
Single (includes divorced, widowed)	23	45						
Highest education							.62	.96
Low (secondary school or less)	1	2						
Medium (secondary school and vocational education)	17	33						
High (higher vocational education or university)	33	65						
Occupation							.80	.06
Paid job	32	63						
No paid job (including unemployed, housewife, student)	19	37						
Ethnicity							.22	1.54
Dutch (including Western immigrants)	45	88						
Immigrant	6	12						
Similar experiences							.06	3.68
Yes	38	75						
No	13	25						

Abbreviation: SD, standard deviation.

**Table 4.** Effects of the Four Videos on Outcomes

Effect	Explicit+ Reassurance+		Explicit+ Reassurance-		Explicit- Reassurance+		Explicit- Reassurance-	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Uncertainty*	54.71†‡§	2.33	62.72‡	2.33	65.91§	2.34	68.28†	2.34
Anxiety	-.87	0.43	0.39	0.44	-.56	0.44	0.40	0.44
Self-efficacy*	51.35†‡	2.09	40.66‡¶	2.10	47.32¶	2.10	36.42†‡#	2.10
Satisfaction*	61.13†‡§	1.74	48.65‡¶	1.75	55.09§¶	1.74	44.67†‡#	1.74

NOTE. All analyses were controlled for (centered) effects of trait anxiety, optimism, and education. Bonferroni post hoc tests ( $P \leq .05$ ).

\*Scores range from 0-100 (low to high).

†Explicit+/reassurance+ with explicit-/reassurance-.

‡Explicit+/reassurance+ with explicit+/reassurance-.

§Explicit+/reassurance+ with explicit-/reassurance+.

||Difference score between STAI-State before and after viewing the videos.

¶Explicit+/reassurance- with explicit-/reassurance+.

#Explicit-/reassurance+ with explicit-/reassurance-.

**Table 5.** Main Effects of Explicitness and Reassurance on Outcomes

Effect	Explicitness			Reassurance		
	Beta	95% CI	<i>P</i>	Beta	95% CI	<i>P</i>
Uncertainty	-.36	-.50 to -.21	< .001	-.23	-.38 to -.08	.002
Anxiety	-.04	-.17 to 0.09	.562	-.22	-.35 to -.09	.001
Self-efficacy	.20	0.06 to 0.33	.004	.47	0.34 to 0.61	< .001
Satisfaction	.28	0.16 to 0.40	< .001	.61	0.48 to 0.73	< .001

NOTE. All analyses were controlled for (centered) effects of trait anxiety, optimism, and education. All analyses were performed using z scores.

**Table 6.** Moderating Influence of Monitoring and Blunting Scores on the Four Videos and Main Effects of Explicitness and Reassurance

Effect	Explicit+ Reassurance+ X		Explicit+ Reassurance- X		Explicit- Reassurance+ X		Explicit- Reassurance- X		Explicitness X		Reassurance X	
	Monitor	Blunter	Monitor	Blunter	Monitor	Blunter	Monitor	Blunter	Monitor	Blunter	Monitor	Blunter
Uncertainty	.031	.96	.21	.09	.19	.47	.99	.60	.007	.11	.97	.41
$\beta$	.04						.04					
Anxiety	.037	.91	.23	.40	.045	.35	.99	.42	.007	.54	.61	.43
$\beta$	.04				-.03				.04			
Self-efficacy	.16	.62	.06	.49	.63	.42	.21	.99	.012	.85	.26	.94
$\beta$									-.04			
Satisfaction	.47	.77	.09	.88	.90	.91	.68	.76	.048	.71	.92	> .99
$\beta$									-.03			

NOTE. All analyses were controlled for (centered) effects of trait anxiety, optimism, and education. All analyses were performed using z scores. P values are reported. For significant effects, standardized betas are reported.

**Appendix**

**Table A1.** Effects of the Four Videos on Outcomes for Patients With and Survivors of Breast Cancer and Healthy Women

Effect	Patients With and Survivors of Breast Cancer		Healthy Women		P
	Mean	SE	Mean	SE	
<b>Uncertainty*</b>					
Explicit+ reassurance+	52.63	3.33	56.72	3.26	.38
Explicit+ reassurance-	60.96	3.33	64.42	3.26	.46
Explicit- reassurance+	66.78	3.33	66.00	3.29	.96
Explicit- reassurance-	65.85	3.35	70.58	3.76	.31
<b>Anxiety†</b>					
Explicit+ reassurance+	-1.19	0.65	-.54	0.63	.48
Explicit+ reassurance-	0.40	0.65	0.39	0.64	.99
Explicit- reassurance+	-.56	0.65	-.53	0.64	.97
Explicit- reassurance-	0.23	0.66	0.57	0.64	.72
<b>Self-efficacy*</b>					
Explicit+ reassurance+	51.16	3.06	51.43	3.00	.95
Explicit+ reassurance-	41.24	3.08	39.96	3.00	.77
Explicit- reassurance+	47.71	3.06	46.83	3.02	.84
Explicit- reassurance-	38.94	3.08	33.91	3.00	.24
<b>Satisfaction*</b>					
Explicit+ reassurance+	60.53	2.50	61.69	2.46	.74
Explicit+ reassurance-	47.27	2.52	49.92	2.46	.45
Explicit- reassurance+	56.00	2.50	54.18	2.46	.61
Explicit- reassurance-	45.12	2.50	44.21	2.46	.79

\*Scores range from 0 to 100 (low to high).

†Difference score between State-Trait Anxiety Inventory (STAI) –State before and after viewing the videos.