Short Communication

Characteristics associated with empathic behavior in Japanese oncologists

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ABSTRACT

Objective: Oncologists must have empathy when breaking bad news to patients who have incurable advanced cancer, and the level of empathy often depends on various individual characteristics. This study aimed to clarify the relationship between these characteristics and empathic behavior in Japanese oncologists.
Methods: We videotaped consultations in which oncologists conveyed news of incurable advanced cancer to simulated patients. Oncologists' empathetic behaviors were coded, and regression analysis was performed to determine the existence of any relationships with factors such as age, sex, and specialism.
Results: Sixty oncologists participated. In a multivariate model, only age was related to the empathy score ($r = 0.406$, $p = 0.033$); younger oncologists scored higher than did older oncologists.
Conclusions: We found that empathic behaviors were more frequent in younger oncologists.
Practice implications: This information could be useful in determining the best approach for implementing future empathy and communication training programs for experienced oncologists in Japanese medical institutions.

1. Introduction

Patients with incurable advanced cancer suffer intense emotional anguish, particularly when first receiving the bad news of their disease. However, physicians' empathy—defined in medical settings as "a predominantly cognitive attribute that involves an understanding of experiences, concerns and perspectives of the patient" [1]—is reportedly related to relatively high patient satisfaction and relatively low distress, especially when bad news is being delivered [2–4].

Oncologists' characteristics—such as age, sex, and specialism—may be associated with their empathic behavior. Previous studies analyzed empathy using self-reported questionnaires or audio-recorded conversations, with researchers investigating oncologists' reactions to patients' verbal distress cues. However, self-report questionnaires lack objectivity; furthermore, empathy has

non-verbal aspects. Indeed, cancer patients' behavior is richly varied, making it difficult to identify empathy through oncologists' reactions to verbal expressions. Therefore, video-recorded conversations between oncologists and simulated patients (SPs) reacting to oncologists' behavior in a standardized way would allow us to make comparisons between consultations, leading to more useful information.

To examine how oncologists' characteristics influence their empathic behavior when breaking bad news, we analyzed video-recorded conversations between oncologists and SPs.

2. Methods

This study was approved by the Ethics Committee of the National Cancer Center of Japan.

2.1. Participants

2.1.1. Oncologists

Sixty oncologists from the National Cancer Center Hospital in Tokyo and the National Cancer Center Hospital East participated.

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Table 1
Empathy score of oncologists during bad news consultations ($N = 60$).

	Range	Median	SD	Correlation to the total
9 items total[a]	6–35	20.5	7.8	–
Empathy score item[b]				
Encouraging patients to ask questions	0–4	4	1.6	0.657
Asking about your worries and concerns	0–4	0	1.4	**0.748**
Saying words to prepare you mentally	0–4	3	1.9	0.634
Remaining silent to consider your feelings	0–4	1	1.7	0.689
Accepting your expression of emotion	0–4	3	1.7	**0.702**
Saying words that soothed your feelings	0–4	3	1.7	**0.755**
Telling the news in a hopeful way	0–4	4	1.0	0.265
Telling what you can hope for	0–4	4	1.1	0.373
Assuming responsibility for your care until the end	0–4	2	1.6	0.536

[a] Sum of 9 items of empathy score (range; 0–36).
[b] Responses were based on a 5-point scale (0 = not at all, 4 = extremely).
Correlations greater than 0.7 are in bold.

Investigators (*M.F. & Y.Y.*) met with each interested oncologist and fully described the study to them. Oncologists who volunteered to participate signed a consent form and gave information on 4 characteristics: age, sex, specialism, and years in practice.

2.1.2. Simulated patients (SPs)

Trained adult SPs participated in the study. Two male and four female adult SPs, all of whom had received at least 3 years of training as simulated cancer patients, participated in this study. The scenario was of middle-aged or elderly patients with advanced cancer, who had undergone numerous diagnostic procedures such as biopsy, having a consultation with their oncologists when being informed of their diagnosis. We videotaped each consultation. None of the SPs had encountered the oncologists previously.

2.2. Survey measures

Empathy score: To score empathy, we used the behavior rating scale, which was based on our previous survey on Japanese cancer patients' communication style preferences when receiving bad news [5–7]. The behavior rating scale included 32 items in 4 subscales, with each item rated on a 5-point scale (0 = not at all to 4 = extremely). The scale assesses the quality and quantity of each empathic behavior, encompassing verbal and non-verbal communication (*e.g.*, atmosphere, tone of voice, expressions, and glances throughout the interview). All items were chosen through discussion with research experts in the field and experienced oncologists and psycho-oncologists. Of the subscales, we chose to use "Reassurance and Emotional support," which consists of 9 items, with a total empathy score ranging from 0 to 36 (Table 1). This subscale correlates with the Interpersonal Reactivity Index, a self-reported questionnaire used for assessing empathy ($r = 0.676$, $p < 0.05$). Two independent coders received over 3 months of training in using the scale manual and videotaped 17 interviews as a preparatory experiment, which accounted for approximately 30% of the analyzed data. Inter-rater and intra-rater reliability for these preliminary interviews were high for the behavior rating scale ($\kappa = 0.826$ and 0.800, respectively).

2.3. Statistical analyses

Univariate analysis between empathy scores and characteristics was performed using Spearman's rank correlation coefficients and the Mann–Whitney U test, where appropriate; all characteristics (age, sex, specialism, and years in practice; $p < 0.05$) were retained. The correlation between age and years of practice was strong ($r = 0.924$, $p < 0.001$); thus, we only included age as an independent variable in the multiple regression model to control for multicollinearity. Multiple regression analysis was then performed with empathy score as the dependent variable and the

characteristics as independent variables. All p values are two-tailed. Analyses were conducted using SPSS version 15.0J (PASW Collaboration and Deployment Services).

3. Results

3.1. Participant characteristics

Sixty Japanese oncologists (50 men; mean age = 36 years) participated in this study (Table 2). Most were surgeons (57%), whereas others specialisms included internal medicine (42%) and radiology (3%).

3.2. Empathy score

Across all consultations, the median empathy score was 20 (Table 1).

Table 2
Characteristics of oncologists ($N = 60$).

		N	%
Age (years)			
Range	28–65		
Mean	36		
SD	6.7		
<35		29	48.0%
36–45		22	37.0%
46<		9	15.0%
Sex			
Male		50	83.0%
Female		10	17.0%
Specialism			
Surgery		34	56.7%
Gastroenterology		18	30.0%
Otorynolaryngology		6	10.0%
Urology		3	5.0%
Gynecology		3	5.0%
Breast oncology		3	5.0%
Respiratory		1	1.7%
Internal medicine		25	41.7%
Gastroenterology		12	20.0%
Respiratory		6	10.0%
Breast oncology		5	8.3%
Hematology		1	1.7%
Radiation oncology		1	1.7%
Radiology		1	1.7%
Physicians' experience (years)			
Range	4–31		
Mean	10		
SD	6.4		
<10		30	50.0%
11–20		21	35.0%
21–30		8	13.3%
>31		1	1.7%