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Cancer Patient and Staff Ratings of Caring Behaviors

Relationship to Level of Pain Intensity

KEY WORDS

Cancer pain

Caring behavior

This study explored differences in the perceived importance of nursing caring behaviors between patients with cancer pain and oncology nurses and to explore the relationship between level of pain intensity and the importance of various nursing caring behaviors. The study included 50 matched cancer patient–staff pairs from oncology inpatient units of 3 hospitals in northern Taiwan. The Brief Pain Inventory—Chinese version (BPI-C) and the Caring Assessment Report Evaluation Q-sort (CARE-Q) were used for data collection. Results revealed that cancer pain patients ranked “being accessible,” “monitors and follows through,” and “anticipates” as being the most important nursing caring behaviors; the nursing staff ranked “being accessible,” “explains and facilitates,” and “monitors and follows through” as being the most important behaviors. No correlations were found between cancer pain patients and staff rankings of the perceived importance of various caring behaviors. The self-reported level of pain intensity by patients was significantly positively correlated with the patient rating of the “anticipates” behavior. Patient self-reported level of pain interference was significantly positively correlated with the “monitors and follows through” behavior and significantly negatively correlated with the “explains and facilitates” behavior. Staff perception of both a patient’s level of pain intensity and pain interference was significantly positively correlated with staff rating of the “being accessible” behavior. Results demonstrated that greater patient-staff communication is needed for staff to more accurately provide caring interventions to make patients with cancer pain feel cared for.

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Human caring needs often stem from the illness-related disability, physical pain, or psychological agony, and thus, are closely connected with the experience of suffering.¹ Cancer pain has a profound impact on every aspect of quality of life and is thus the dominant cause of total suffering of cancer patients.² Patients with different levels of suffering may need different caring behaviors. Nurses, as care providers, have the opportunity to convey caring and the feeling of being cared for through their behaviors.^{3,4} Client-centered nursing care should offer patients caring that is consistent with patient preferences and needs.⁵ However, to provide appropriate caring behaviors, it is essential to understand both patient and nurse perceptions and perspectives of what it means to “be cared for.” To date, no study has explored the relationship between patient and staff perceptions of the importance of various nursing care behaviors in patients with cancer pain. Focusing on patients with a specific disease such as cancer is important because perceptions of nursing caring behaviors may differ in different disease situations in which the nurse interactions occur.⁶ Therefore, the purpose of this study was to explore differences in the perceived importance of various caring behaviors between patients with cancer pain and oncology nurses and to explore the relationship between pain level and caring behaviors.

Caring consists of a series of intentional helping activities, including physical and emotional care by which a sense of security in patients is promoted.⁶ Caring behavior is an important element of nursing practice.⁷ There are 2 aspects of caring, expressive behaviors and instrumental activities.⁸ Expressive aspects of care involve providing emotional support to the patient through offers of fidelity, confidence, hope, and emotional warmth. Instrumental aspects of care refer to substantial activities, such as giving bed baths and providing medical information, which promote physical comfort and cognitive coping.

Studies have shown that patients and staff do not agree on the importance of various caring behaviors.^{9–17} For example, patients who had a greater need for medical care thought that the most important caring behavior was the ability to provide professional skills (ie, task-oriented caring behavior), such as the knowledge of how to give and manage IVs, the ability to use medical instruments correctly,^{9–11} and the willingness to be honest about a patient’s medical condition.¹² However, patients who had greater needs for psychiatric care placed emphasis on affective-oriented caring behaviors, such as listening to patients when they complained or otherwise expressed their feelings.¹³ Staff working in either medical or psychiatric units considered the most important caring behavior to be psychosocial support, which is an emotional aspect of caring behavior.^{9,11–17} The discrepancy in perceived importance of various caring behaviors between patients and staff may result in patient needs going unmet and patient dissatisfaction with the care received.

Kelly¹⁸ suggested that the concept of caring is related to symptom control, because of the high relationship between caring and human needs.^{16,19,20} The cancer-related symptom of pain is the most significant and dominant cause of

suffering during cancer illness.² In a study of 296 newly diagnosed cancer patients in Taiwan in 1998, 38% of newly diagnosed cancer patients reported experiencing pain, and 65% of them reported significant worst pain (pain at worst in the last 24 hours at or greater than 5 on a 0 to 10 scale).²¹ Patient satisfaction with pain management has been found to significantly relate to their perception of the level of caring by staff.²² In other words, healthcare professionals can enhance patients’ satisfaction of care by providing appropriate caring behaviors. However, to date, very few studies have focused on caring behaviors as they relate specifically to patients with cancer pain, nor have studies compared the perceived difference in importance of caring behaviors between staff and cancer pain patients. Further, little is known about the relationship between perceived importance of various caring behaviors and pain-level intensity in patients with cancer pain.

■ Methods

Sample and Setting

This cross-sectional and descriptive correlational study was undertaken to evaluate caring behaviors and related levels of pain intensity in 50 cancer patient–staff pairs from 3 regional hospitals with oncology units in northern Taiwan.

Eligible patients were those who had been diagnosed with cancer of any type, had been hospitalized in the oncology unit for least 3 days, had experienced pain in the last 24 hours, were receiving pain medication, were over 18 years old, and were able to communicate in Mandarin or Taiwanese. Eligible staff were those who had provided primary care to the eligible patient for 3 days. Staff members were limited to participation in only 1 patient–staff pair in this study in order to avoid bias due to multiple participation. The total eligible participants consisted of 50 matched cancer patient–staff pairs.

Instruments

The research instruments included the Brief Pain Inventory—Chinese version (BPI-C), the Caring Assessment Report Evaluation Q-sort (CARE-Q), and a background data sheet for patients and staff.

BRIEF PAIN INVENTORY—CHINESE VERSION

The BPI-C was used in this study to measure pain intensity. The Brief Pain Inventory (BPI) was developed by Cleeland,²³ and was later translated into Chinese.²⁴ The BPI is a self-reporting instrument used to assess the multidimensional nature of pain, including intensity and subsequent interference with life activities in the previous 24-hour time period.

For the current study, the BPI-C was used.²⁴ The first part of the BPI consists of the following 4 single-item measures of pain intensity with each item rated on a scale of 0 (*no pain*) to 10 (*the worst pain I can imagine*): (1) worst pain (please rate

your pain by circling the number that best describes your pain at its worst in the last 24 hours); (2) least pain (please rate your pain by circling the number that best describes your pain at its least in the last 24 hours); (3) average pain (please rate your pain by circling the number that best describes your pain on average); and (4) pain now (please rate your pain by circling the number that tells how much pain you have right now). A pain intensity score (the average of the 4 items) was computed. The second part of the BPI consists of the following 7 items that assess the extent to which pain interferes with general activities, mood, walking, working, relations with others, sleeping, and enjoyment of life with each item rated on a scale of 0 (*does not interfere*) to 10 (*completely interferes*). An interference score (the average of the 7 items) was computed. Based on the degree of interference with cancer patients' function, ratings of pain intensity 1–4 correspond to mild pain, 5–6 to moderate pain, and 7–10 to severe pain.²⁵

The BPI has been used worldwide to measure pain and has well-established reliability and validity. The test-retest reliability for pain intensity was 0.93 in a sample of inpatients with cancer.²³ The internal consistency of the BPI-C for pain interference was 0.91 in a Chinese sample²⁴ and 0.89 in a Taiwanese sample with cancer pain.²⁶ In the current study, the coefficient alphas for pain interference were 0.87 and 0.94 for the patient and staff samples, respectively.

CARING ASSESSMENT REPORT EVALUATION Q-SORT

The CARE-Q was developed by Larson²⁷ to measure 50 caring behaviors that were categorized into the following 6 subscales. "Being accessible" (6 items) is defined as denoting a willingness on the part of a nurse to come to the patient. "Explains and facilitates" (6 items) is defined as a nurse providing adequate information and resources to a patient. "Comforts" (9 items) is defined as nursing gestures, such as touching, which make the patient feel comfortable because of the nurse's presence and demeanor. "Anticipates" (5 items) is defined as a nurse anticipating the usual course of events and acting on and/or sharing them with patients. "Trusting relationship" (16 items) is defined as the nurse creating a feeling of mutual trust and confidence with the patient. "Monitors and follows through" (8 items) is defined as a nurse demonstrating technical competency and following through to make sure that the patient's care is complete, adequate, and performed in a professional manner.⁹

The CARE-Q forces responses into a quasi-normal distribution by asking the individual to sort 50 behaviors into piles that range from "most important" to "least important." The participant is required to identify 1 most important behavior (score 7) and 1 least important behavior (score 1), 4 next most important (score 6) and 4 next to least important (score 2), 10 rather important (score 5) and 10 not so important (score 3), and 20 that are neither important nor unimportant (score 4). Patients were instructed to sort the items according to how important they perceived them to be in response to the following question "In order to make you feel well cared for, how important is it that the staff...?"

The staff members were asked the corresponding question of how important they thought each item was in order to make the patient feel as though they were being properly cared for.

Results from the CARE questionnaire (free-choice format) show internal consistency reliabilities of 0.95 for total items and from 0.56 to 0.86 for the 6 subscales using 86 internal and surgical patients and 73 nurses.¹² In the study of Widmark-Petersson et al²⁸ (free-choice format), values of Cronbach alpha ranged from 0.59 to 0.78 for a sample of 72 cancer patients and 63 nurses. The free-choice format showed satisfactory internal consistency and reliability, whereas Cronbach alphas ranged from -0.09 to 0.46 for the 6 subscales using the forced-choice format in a psychiatric setting.¹³ Widmark-Petersson et al¹¹ considered that the forced-choice format of the Q-methodology might lead to low interitem correlations, as well as difficulties and complexity in calculating Cronbach alpha. Face validity and content validity of the CARE-Q were established in Larson's 2 initial studies using patients and nurses.²⁷ Construct validity and criterion-related validity have not been addressed since Larson's studies because of a lack of similar instruments to assess nursing care behaviors.

After a translation and back-translation approach was carried out in this study, the content validity index value was 95.3%, as scored by 7 experts. The low internal consistency reliabilities, due to the forced-choice format, ranged from 0.13 to 0.50.

BACKGROUND DATA SHEET FOR PATIENTS AND STAFF

For patients, the background data sheet contained employment information, number of family members in the household, diagnoses, times at which pain was experienced, information about whether the cancer had metastasized (and, if the cancer had metastasized, the site(s) of metastasis), prescription(s) of analgesics, and reason(s) for hospital admission. A background data sheet was also given to the nursing staff that asked for the number of years of providing care to cancer patients, the current shift duty, and the ratio of nurses to patients. Nursing staff members were also asked to rate how they felt about their workload, with choices being "very busy," "fairly busy," "somewhat busy," "not busy," and "not busy at all."

Procedures

After approval was obtained from the Human Subjects Committee of each hospital, eligible subjects were recruited for this study. Informed consent was obtained from all subjects as soon as the process and the aims of this study had been explained to them and they had agreed to participate. Patients were asked to complete the BPI-C, the CARE-Q, and the patient background data sheet without assistance. The nursing staff members matched to the patients also had to fill out the BPI-C to report their perceptions of the corresponding patients' pain levels. In addition, nursing staff members were asked to complete the CARE-Q and the staff

background data sheet for the last 24 hours. If a patient was unable to complete the questionnaire without assistance, a research assistant read the questionnaire items to the patient and then recorded the patient's answers on the questionnaire.

Statistical Analysis

Descriptive statistics were performed to describe the background information and levels of pain. Paired *t* tests were used to compare perceptions of caring behaviors of the two groups. Analysis of variance and Pearson correlation were used to determine the differences among those variables within and between patient and staff groups.

Results

Demographic Characteristics

Fifty matched patient-staff dyads were recruited for this study. Thirty-five (70.0%) of the patients were men and 15 (30.0%) were women with a mean age of 57.70 (SD = 13.13) years. Approximately one-third (36.0%) of patients had a primary school education or less, 29 (58.0%) had received a junior or senior high school education, and the remainder had graduated from college. The majority (96.0%) were married, and were living with family with a mean number of members of 3.04 (SD = 1.54). As far as religious affiliation was concerned, 62.0% professed a belief in Buddhism.

The original diagnosis of cancer included lung cancer (n = 10), hepatoma (n = 7), breast cancer (n = 4), rectal cancer (n = 4), nasopharyngeal carcinoma (n = 4), and others (n = 21). Of the total, the cancer in 34 (68.0%) had metastasized, with the skeleton being the most common site (52.0%). Other metastatic sites were the liver, lung, lymph nodes, brain, skin, and pancreas. The length of time since the first onset of cancer pain was a mean of 8.52 (SD = 9.56) months. Each patient was using at least one analgesic. Prescribed analgesics consisted of strong opioids (n = 47), weak opioids (n = 26),

and nonsteroidal anti-inflammatory drugs (n = 3). Analgesics were administered by a variety of routes: orally (n = 36), transdermally (n = 22), intravenously (n = 12), sublingually (n = 4), and intramuscularly (n = 2). Most analgesics were used around-the-clock. Patients had been admitted to the hospital to receive chemotherapy or radiotherapy (n = 31), or because of pain (n = 24), fever (n = 8), or other (n = 7).

All nurses were women with a mean age of 25.00 (SD = 2.57) years. Fifty-eight percent of them (n = 29) held baccalaureate degrees. Eighty-eight percent (n = 44) were single. Forty-two percent (n = 21) had no religious affiliation. The mean length of clinical experience was 2.92 (SD = 2.02) years, and mean length of providing cancer care was 1.79 (SD = 1.66) years. Each nurse cared for 7.7 (SD = 1.64) patients on average. The perceived workload was "somewhat busy" to "very busy." The age of the nursing staff and their length of clinical experience did not correlate with their ratings on the CARE-Q subscales.

Pain Intensity and Pain Interference With Daily Life

As shown in Table 1, mean (SD) of pain intensity and pain interference reported by cancer patients was 3.46 (1.47) and 5.37 (2.23), respectively. Staff, as compared to patients, rated significantly lower levels of pain intensity (mean = 3.01, SD = 1.82; *t* = 2.14, *df* = 49, *P* < .05) and lower levels of pain interference (mean = 4.62, SD = 2.61; *t* = 2.46, *df* = 49, *P* < .05).

The 50 patients with cancer pain were divided into 3 groups by their perceived worst pain level on the BPI-C. Nine patients (18%) who scored their worst pain from 1 to 4 were placed in the "mild pain" group, 21 patients (42%) who scored their worst pain from 5 to 6 were placed in the "moderate pain" group, and the remaining 20 patients (40%) who scored their worst pain from 7 to 10 were placed in the "severe pain" group according to the recommendation of Serlin et al.²⁵ There was no significant difference among

Table 1 • Comparison Between Patient Self-reported Pain Intensity and Staff Ratings of Patients' Levels of Pain

Variable	Patients (n = 50)		Staff (n = 50)		<i>t</i>	<i>r</i>
	Mean	SD	Mean	SD		
Pain intensity	3.46	1.47	3.01	1.82	2.14*	0.61
Worst pain	6.54	2.32	5.40	2.72	3.46	0.59
Least pain	1.60	1.31	1.54	1.66	0.24	0.29
Average pain	3.28	1.37	2.92	1.90	1.56	0.54
Pain now	2.40	1.87	2.16	1.83	0.85	0.42
Pain interference	5.37	2.23	4.62	2.61	2.46*	0.61
General activity	5.84	3.00	5.34	2.96	1.02	0.33
Mood	6.10	2.84	5.22	3.14	1.81	0.35
Walking	5.14	3.66	5.26	3.62	-0.24	0.50
Relations	3.30	3.09	2.88	2.54	1.05	0.51
Sleeping	6.86	3.08	4.84	2.96	4.26	0.39
Enjoyment of life	4.96	2.60	4.96	3.37	2.03*	0.55

**P* < .05.

the 3 groups on the CARE-Q subscales using analysis of variance tests.

Importance of Various Caring Behaviors

By the Q-sort methodology on a 1-to-7-point scale, as shown in Table 2, patients rated the CARE-Q subscale of “being accessible” (mean = 4.59, SD = 0.46) as the most important, followed by “monitors and follows through” (mean = 4.46, SD = 0.42) and “anticipates” (mean = 3.92, SD = 0.42). Staff also perceived “being accessible” (mean = 4.50, SD = 0.56) on the CARE-Q subscale as the most important, followed by “explains and facilitates” (mean = 4.16, SD = 0.42) and “monitors and follows through” (mean = 4.08, SD = 0.40).

Patients and nursing staff significantly differed from each other on ratings of 3 of the 6 subscales in the CARE-Q by *t* test: “monitors and follows through” (patients > staff, *t* = 4.82, *df* = 49, *P* < .05); “comforts” (staff > patient, *t* = -2.63, *df* = 49, *P* < .05); and “explains and facilitates” (staff > patients, *t* = -2.95, *df* = 49, *P* < .05) (Table 2). There was no significant association between perceptions by patients and staff of the importance of various caring behaviors for the same subscales.

The top 10 most and least important CARE-Q behaviors rated by patients are presented in Tables 3 and 4. Among the 10 caring behaviors given the highest scores by patients and scored significantly higher by them than by staff were “gives the patient’s treatments and medications on time” (*t* = 6.47, *df* = 49, *P* < .05), “knows how to give shots, IVs, etc. and how to manage equipment like IVs, suction machines, etc.” (*t* = 6.37, *df* = 49, *P* < .05), and “knows when to call the doctor” (*t* = 6.00, *df* = 49, *P* < .05). Among the 10 least important caring behaviors as rated by patients, “being professional in appearance—wears appropriate identifiable clothing and identification” (*t* = 2.99, *df* = 49, *P* < .05) was the only item that was scored significantly higher by patients than by staff.

Self-reported Levels of Pain Intensity in Relation to Patient Ratings of Caring Behaviors

Pearson correlation was used to determine the relationship between level of pain and the CARE-Q subscales (Table 5).


The overall score of pain intensity had a significant positive correlation with “anticipates” (*r* = 0.33, *P* < .05). Least pain had a significant negative correlation with “comforts” (*r* = -0.40, *P* < .05). Least pain (*r* = 0.40, *P* < .05) and average pain (*r* = 0.31, *P* < .05) had significant positive correlations with “anticipates.” Pain now had a negative correlation with “has a trusting relationship” (*r* = -0.29, *P* < .05). The overall pain interference score had a significant positive correlation with “monitors and follows through” (*r* = 0.34, *P* < .05), whereas pain interference had a negative correlation with “explains and facilitates” (*r* = -0.31, *P* < .05).

Staff Perception of Patient Pain Level in Relation to Staff Ratings of Caring Behaviors

Pearson correlation was used to determine correlation between level of pain and the CARE-Q subscales (Table 6). “Being accessible” showed significant positive correlation with pain intensity and pain interference. Otherwise, no significant correlations were found between staff perceptions of patients’ levels of pain intensity and staff ratings of CARE-Q subscales.

Discussion

Although both patients and nursing staff perceived “being accessible” and “monitors and follows through” as being the most important subscales of the CARE-Q, patients, in contrast to the staff, stressed the importance of the latter item. These findings differ from those of previous studies which showed that patients and nursing staff did not concur on the importance of items (eg, patients in medical/surgical units perceived that the task-oriented aspect of caring was the most important compared to the staff who emphasized expressive/affective behaviors).^{12,15,29-31} The difference in results may be due to the fact that this study, as opposed to the others, paired staff with patients all with the same disease and, therefore, on the same unit. The oncology patients and the staff members may have established a long-term relationship with each other so that they may have had more consistent perceptions regarding the importance of caring behaviors.

 **Table 2 • Patient and Staff Mean Value Rankings of the CARE-Q Subscales (N = 100)**

CARE-Q Subscales	Patient Ranking	Patient Mean (SD)	Staff Mean (SD)	<i>t</i>	Staff Ranking
Being accessible	1	4.59 (0.46)	4.50 (0.50)	1.03	1
Monitors and follows through	2	4.46 (0.39)	4.08 (0.40)	4.82*	3
Anticipates	3	3.92 (0.42)	4.00 (0.46)	-0.91	5
Comforts	4	3.88 (0.41)	4.01 (0.31)	-2.63*	4
Explains and facilitates	5	3.87 (0.51)	4.16 (0.60)	-2.95*	2
Has a trusting relationship	6	3.70 (0.21)	3.69 (0.24)	0.22	6

**P* < .05.

Table 3 • Top 10 Most Important CARE-Q Behaviors Rated by Patients (n = 50) and the Related Staff Rankings (n = 50)

Behavior and Patient Rank	Subscale	Patient Mean (SD)	Staff Mean (SD)	t	Staff Ranking
1 Gives the patient's treatments and medications on time	I	6.44 (0.79)	5.42 (1.05)	6.47*	3
2 Knows how to give shots, IVs, etc. and how to manage the equipment like IVs, suction machines, etc.	VI	5.70 (0.79)	4.68 (0.79)	6.37*	9
3 Gives a quick response to the patient's call.	I	5.54 (0.76)	5.44 (0.93)	0.58	2
4 Knows when to call the doctor.	VI	5.26 (1.14)	4.12 (0.82)	6.00*	20
5 Gives good physical care to the patient.	VI	5.06 (1.11)	5.46 (1.31)	-1.75	1
6 Is perceptive of the patient's needs and plans and acts accordingly (eg, gives antinausea medication when a patient is receiving medication which will probably induce nausea).	IV	4.92 (0.70)	4.86 (0.73)	0.42	5
7 Checks on the patient frequently.	I	4.84 (1.20)	4.86 (1.01)	-0.09	5
8 Is honest with the patient about his/her medical condition.	II	4.48 (0.81)	4.76 (0.96)	-1.74	7
9 Makes sure others know to care for the patient.	VI	4.34 (0.77)	4.08 (0.90)	1.62	22
10 Is patient even with "difficult" patients	III	4.28 (0.99)	4.14 (0.97)	0.70	18

I indicates is accessible; II, explains and facilitates; III, comforts; IV, anticipates; V, has a trusting relationship; VI, monitors and follows through. **P* < .05.

Moreover, it is possible that to alleviate cancer pain and suffering patients might need more frequent contact, monitoring, and follow-up from staff than patients with other diseases.

In comparison to other studies, this study did not show significantly higher rankings of the importance of "explains and facilitates" by patients than by staff.^{5,12,13,15,32-34} During

Table 4 • Top 10 Least Important CARE-Q Behaviors Rated by Patients (n = 50) and the Related Staff Rankings (n = 50)

Behavior and Patient Rank	Subscale	Patients Mean (SD)	Staff Mean (SD)	t	Staff Ranking
1 Asks the patient what name he/she prefers to be called.	V	2.04 (1.12)	1.84 (1.02)	1.20	1
2 Volunteers to do "little" things for the patient (eg, brings a cup of coffee, a paper, etc.)	I	2.25 (1.31)	2.72 (1.44)	-0.92	3
3 Helps the patient establish realistic goals.	V	3.20 (0.93)	3.46 (1.01)	-1.32	6
4 Helps the patient not feel dumb by giving him/her adequate information.	II	3.22 (1.11)	3.54 (1.25)	-1.45	8
5 Is professional in appearance (ie, wears appropriate identifiable clothing and identification).	VI	3.26 (1.01)	2.70 (1.05)	2.99*	2
6 Tells the patient of support systems available, such as self-help groups or patients with a similar disease.	II	3.34 (1.15)	3.60 (1.12)	-1.36	12
7 Provides encouragement to the patient by identifying positive elements related to the patient's condition and treatment.	III	3.40 (0.88)	3.70 (0.95)	-1.55	17
8 When with a patient, concentrates only on that one patient.	V	3.44 (0.81)	3.56 (0.86)	-0.74	9
9 Continues to be interested in the patient even though a crisis or critical phase has passed.	V	3.54 (0.73)	3.70 (0.89)	-0.96	17
10 Sits down with the patient.	III	3.56 (1.16)	3.78 (0.93)	-1.03	21

I, indicates is accessible; II, explains and facilitates; III, comforts; IV, anticipates; V, has a trusting relationship; VI, monitors and follows through. **P* < .05.

Table 5 • Patient Self-reported Levels of Pain in Relation to Patient Ratings on the CARE-Q Subscales (n = 50)

	Pain Intensity	Pain Interference With Daily Life
Is accessible	-0.03	-0.23
Explains and facilitates	0.04	-0.31*
Comforts	-0.17	0.11
Anticipates	0.33*	0.23
Has a trusting relationship	-0.09	-0.11
Monitors and follows through	0.06	0.34*

**P* < .05.

the interview process for this study, some eligible patients indicated that they did not want to bother the nurses due to the nurses' heavy workload, and thus, stated that "gives the patient's treatments and medications on time" was the most important caring behavior rather than "explains and facilitates," this hesitancy perhaps explaining patients scoring the "explains and facilitates" subscale lower than did staff. Paice et al,³⁵ using the Cancer Total Quality Pain Management instrument in a population of 200 oncology patients, also found that hesitancy to bother a nurse is one of the barriers to cancer pain relief.

The results of this study paralleled earlier ones in the ranking of the "comforts" subscale, with staff placing it significantly higher in importance than did patients.^{12,13,15,29,32,34} Nurses have perceived promoting comfort as an important function of nursing care, especially for patients who are suffering pain. This may be the reason nurses ranked "comforts" as more important than did patients.

This study also found that patients with cancer pain scored giving treatments on time, having expert technique, and knowing when to call the doctor significantly higher than did staff. These items are included in the "being accessible" and "monitors and follows through" subscales and are all related to technical and treatment aspects of staff competence. Previous studies comparing cancer patient and staff perceptions of caring behaviors also consistently found that cancer patients are more likely to be concerned about the technical competence of the staff, while the staff tended to address emotional care.^{36,37} Larson²⁷ found that among the 10 most important items ranked by cancer patients, 4 of them were in the subscale "monitors and follows through" and 3 in "being accessible." and the results of this study also show the importance of the behaviors contained in these two subscales. Cancer pain is regarded as the most feared of the many symptoms associated with cancer.³⁸ Most patients (82%) in this study suffered moderate to severe pain; therefore, similar to patients in acute care settings, patients in this study perceived staff competence related to technique and treatment as most important in order to obtain pain relief.

Patient reports of pain intensity in this study had a significantly positive correlation with the "anticipates" dimen-

sion, which included staff behaviors such as being perceptive of the patient's needs and planning and acting accordingly. The "anticipates" dimension of caring behaviors reflects the nurses' capability to feel what patients are suffering and to anticipate the patient's experiences of pain, a phenomenon that can also be viewed as an expression of empathy and of the provision of proper interventions.³⁸⁻⁴⁰ Therefore, empathy or "anticipates" caring behaviors could be especially important for patients experiencing high levels of cancer pain.

Pain interference with daily life was significantly positively correlated with the "monitors and follows through" dimension, demonstrating that technical competency must be coupled with follow through to make sure that the patient's care is complete, adequate, and performed in a professional manner.⁹ Subscale items in the "monitors and follows through" dimension, which were perceived as most important by patients, included "knows how to give shots" and "gives good physical care." These items could be scored high in importance because patients with higher levels of pain interference, an indicator of higher levels of physical disability and lower levels of quality of life, have more need for assistance with physical care and immediate relief of physical discomfort. Therefore, these patients with higher levels of pain interference would need staff that will provide professional techniques in a manner that helps resolve their pain interference. This result is in line with the finding that the top 5 most important CARE-Q items as ranked by patients were related to technical competency.

Pain interference had a significantly negative correlation with the "explains and facilitates" dimension. If pain worsens over time, patients may perceive the increased pain as indicating a "poorer prognosis" or "incurable condition" and may restrict communication with others. Rankin⁴¹ suggested that limitations on daily activities due to cancer pain interference might lead to patients' feelings of helplessness. Consequently, patients with pain interference may consider the requirement for cancer-related information and resources to be less important.

Table 6 • Staff Perceptions of Patients' Levels of Pain Intensity in Relation to Staff Ratings of CARE-Q Subscales (n = 50)

	Pain Intensity	Pain Interference With Daily Life
Is accessible	0.37*	0.48*
Explains and facilitates	-0.01	-0.28
Comforts	-0.04	0.00
Anticipates	-0.19	-0.21
Has a trusting relationship	-0.09	-0.13
Monitors and follows through	-0.07	0.15

**P* < .05.

Staff perception of both a patient's level of pain intensity and pain interference was positively correlated with "being accessible." Subscale items perceived as most important included "gives the patient's treatments and medications on time," "gives a quick response to the patient's call," and "checks on the patient frequently," all of which indicate a willingness on the part of the nurse to approach and attend to the patient who has high levels of pain intensity and pain interference.

A negative correlation between pain interference and "explains and facilitates" was consistent between patient and staff groups, indicating that both may regard providing illness-related information and resources as being less important for patients with higher levels of pain interference. This result is not consistent with the findings revealed by Larson et al,³² in which significant relationships were not found between either patient or staff perceptions of levels of anxiety and/or depression and caring dimensions. Larson et al³² explained that the lack of significant correlations might be due to reduced variance of the CARE-Q scales, although such result was contradictory to Larson et al's expectation that levels of depression/anxiety would be related to patients' ratings of importance at least of the "comforts" and "trusting relationship" dimensions.

This study was limited by its small sample size, which was a result of restricting staff participation to only 1 patient-staff pairing to avoid bias that might have resulted from staff participating multiple times. Moreover, the use of forced format of CARE-Q could result in reduced variance of the CARE-Q scores, and thus, reduce the number of significant correlations between level of pain intensity and ratings of importance of caring behaviors. More studies are needed in order to establish the generalizability of the findings.

The results from this study provide important implications for the care of patients with cancer pain. Although the present study found that patients and staff consistently rated "being accessible" as the most important caring behavior, substantial differences existed between patient and staff rankings of majority of caring behaviors. One reason for this difference in perception between the two groups may be due to a lack of efficient communication between patients and staff and the limited access patients have to staff.³² In the past, caring was viewed as a component from the only the professionals' point of view.^{42,43} However, Widmark-Petersson et al⁵ recommended that staff should ask patients what kind of caring behaviors they value most in order to validate their perceptions. Researchers have often emphasized the importance of patient-staff communication.^{5,11,13,32,33} Education programs aimed at enhancing patient-staff communication could perhaps diminish perceptual differences between patients and staff as to caring behaviors. Improved agreement between patients and staff as to the importance of caring behaviors could, in turn, have great potential for improving the quality of nursing care.

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