

# Knowledge and Attitudes About Cancer Pain Management: A Comparison of Oncology and Nononcology Nurses

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**Purpose/Objectives:** To obtain information about the knowledge and attitudes of Utah nurses concerning cancer pain management.

**Design:** Descriptive study.

**Setting:** Nurses in Utah.

**Sample:** 44 oncology nurses and 303 nononcology nurses completed the study.

**Methods:** Ferrell's Nurses' Knowledge and Attitudes Survey Regarding Pain was given to oncology and nononcology nurses to compare knowledge and attitudes about treating cancer pain.

**Main Research Variables:** Knowledge and attitudes regarding cancer pain.

**Findings:** Attitudes of oncology nurses were more in line with recommended practices (principles) of cancer pain management than those of nononcology nurses. Oncology nurses had a better understanding of recommended practices (principles) of cancer pain management than nononcology nurses but still struggled with understanding the pharmacology of medications used to manage cancer pain.

**Conclusions:** Nurses do not use evidence-based practice in pain management consistently. Continuing education regarding cancer pain management remains important for oncology and nononcology nurses.

**Implications for Nursing:** Adoption of evidence-based practice requires ongoing education of nurses and support from nursing colleagues, nursing administration, and associated healthcare providers. Data from this study can be used to design a curriculum involving content about cancer pain management. All members of the healthcare team should be supported in practicing the correct principles of cancer pain management in actual practice.

## Key Points . . .

- ▶ Oncology nurses have a better grasp of cancer pain management principles than nononcology nurses.
- ▶ Education about principles of cancer pain management must be ongoing for all nurses.
- ▶ All members of the healthcare team should be supported in practicing correct principles of cancer pain management.

Ruzicka & Daniels, 2001; Spross, McGuire, & Schmitt, 1990), many patients continue to receive inadequate amounts of pain medication (Anderson et al., 2000; O'Brien et al.; Ruzicka & Daniels). In fact, the prevalence of pain in hospitalized patients with cancer has not decreased during the 1990s (Wells), even though pain relief is achievable in more than 90% of cases (Fox, 1982; Howell et al.; Joranson & Gilson; Paice et al.; Ruzicka & Daniels).

The *Clinical Practice Guidelines for the Management of Cancer Pain* (Jacox et al., 1994), published by the Agency for Health Care Policy and Research (AHCPR), indicated that 75% of patients with advanced cancer experience pain at some point in their disease and 25% of these patients report their pain as severe. The AHCPR guidelines suggested

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**P**ain is a symptom experienced frequently by patients with cancer (Ferrell, McCaffery, & Rhiner, 1992; Ferrell, McGuire, & Donovan, 1993; Holzheimer, McMillan, & Weitzner, 1999; O'Brien, Dalton, Konsler, & Carlson, 1996; Paice, Toy, & Shott, 1998; Pritchard, 1988; Wells, 2000) and is one of the symptoms that patients fear the most (Howell, Butler, Vincent, Watt-Watson, & Stearns, 2000; Myers, 1985). Despite new policies and guidelines for pain management published during the 1980s and 1990s (Joranson & Gilson, 1998; McCaffery & Ferrell, 1995;

that methods are available to control 90% of all cancer pain. One barrier to appropriate control of cancer pain is the lack of knowledge about correct pain control methods. Another barrier is attitudes about cancer pain control that make managing cancer pain appropriately difficult for healthcare providers.

Many studies have evaluated the knowledge and attitudes of healthcare providers concerning the management of cancer pain. International, national, and state-specific surveys have evaluated the knowledge and attitudes of RNs toward cancer pain and its management (Holzheimer et al., 1999; Marks & Sachar, 1973; McCaffery & Ferrell, 1995, 1997; O'Brien et al., 1996; Pritchard, 1988). Studies also have evaluated cancer pain control curricula taught by nursing faculty to nursing students (Ferrell et al., 1993; McCaffery & Ferrell, 1992; O'Brien et al.; Pritchard; Watt-Watson, 1987). All of these projects have led to efforts to determine the measures that should be taken to increase nursing knowledge and change attitudes about cancer pain management to improve patient care. Educational activities to increase nursing knowledge and correct attitudes about cancer pain control have produced some improvement (McCaffery & Ferrell, 1997); however, no research has been conducted in Utah to determine the current knowledge and attitudes of Utah RNs. Such information would guide nurses in developing programs designed to improve knowledge and attitudes about cancer pain management. The purpose of the current study was to obtain baseline data about the knowledge and attitudes of Utah RNs regarding the control of cancer pain.

## Literature Review

Several barriers to cancer pain relief are identified in the literature. These include lack of knowledge among healthcare providers and patients as well as negative attitudes about cancer pain management held by nurses, patients, and physicians.

### Lack of Knowledge

Nursing textbooks may contain inaccurate information about opioid addiction, tolerance, and physical dependence (Ferrell et al., 1992), and baccalaureate nursing programs allocate little time to cancer pain management (Ferrell et al., 1993; McCaffery & Ferrell, 1992; O'Brien et al., 1996; Pritchard, 1988; Watt-Watson, 1987). Nurses generally lack knowledge about cancer pain assessment, and their pain assessments often focus on addictive behaviors rather than pain intensity and other descriptive characteristics of pain (Dalton, 1989; Strevy, 1998). Many nurses do not know that a patient's self-report of pain is the most accurate measure of pain (McCaffery & Ferrell, 1997). Some nurses claim that physicians or nurses can rate pain more accurately than patients can (Howell et al., 2000). Nurses who do ask patients to rate their pain on a 0–10 scale may rephrase or minimize patients' reports when charting pain assessments (Fox, 1982). Howell et al., auditing the charts of 93 patients with cancer, found no pain assessments in any of the charts, pain intensity reported in only 24 charts, and pain intensity charted only one to three times in 24 hours. After administering an educational intervention, Howell et al. noted a slight increase in nurse charting of pain intensity.

Many nurses lack knowledge about appropriate analgesic administration and titration. This lack of knowledge has led, in some cases, to using placebos and underusing oral analgesics (McCaffery & Ferrell, 1995), requiring patients to experience pain before administering pain medications, administering pain medications as needed instead of around the clock, prolonging the intervals between doses (Fox, 1982; Myers, 1985), and using inadequate doses with failure to titrate doses according to patients' stated pain intensity (McCaffery & Ferrell, 1997; McCaffery, Ferrell, O'Neil-Page, Lester, & Ferrell, 1990; Sheidler, McGuire, Grossman, & Gilbert, 1992). Lack of knowledge about drug interactions and the management of side effects caused by opioid analgesics also causes some nurses to give inadequate doses (Fox).

Some progress is being made as nurses become more educated about the low risk of addiction by patients who use opioid medications for pain. Newer surveys indicated that fewer nurses still believe that patients will become addicted to analgesics (McCaffery & Ferrell, 1997) when compared to older survey data (Fox, 1982; McCaffery et al., 1990; Watt-Watson, 1987).

Controversy exists in determining whether oncology nurses are (O'Brien et al., 1996) or are not (Sheidler et al., 1992) more knowledgeable about cancer pain management than nononcology nurses. One hundred seventy-seven RNs attending a continuing education program about oncology nursing completed a short quiz containing four scenarios (Sheidler et al.). Twenty-nine percent could not determine correctly whether a suggested opioid analgesic dose was appropriate, too high, or too low in any of the scenarios. Only 2% answered all four questions correctly. No statistically significant association existed between correct answers and oncology or nononcology work setting. However, O'Brien et al. found a sample of 212 nurses who cared for patients with cancer to be more knowledgeable and more liberal in their attitudes about cancer pain management than a sample of 122 nurses who did not care for patients with cancer.

In addition to nurses, physicians (Anderson et al., 2000; Fox, 1982; Marks & Sachar, 1973) and patients (Paice et al., 1998; Strevy, 1998) lack knowledge regarding the treatment and relief of cancer pain. Physicians receive little pain management training in medical school, so they may be hesitant to prescribe adequate doses of opioid analgesics. Further compounding the problem, many patients do not know that their cancer pain can be relieved effectively, so they do not demand adequate pain management from their healthcare providers.

### Negative Attitudes

Negative nursing attitudes create barriers to effective cancer pain management. Some nurses express fear of contributing to patient opioid addiction (McCaffery et al., 1990; McCaffery & Ferrell, 1992; Myers, 1985; Strevy, 1998). Howell et al. (2000) used an educational intervention to improve the knowledge and attitudes of oncology nurses in cancer pain management. Although the intervention did change the knowledge, attitudes, and behavior of the study nurses, the changes were not maintained over time. Before the intervention, 38% of nurses did not believe that patients should be kept pain free. Although the intervention altered this belief, improvement declined by three months postint-

ervention. Most of the knowledge, attitude, and behavior scores at three months postintervention were approaching their preintervention levels. Prior to the study intervention, 34% of nurses reported a willingness to contact physicians when pain was unrelieved. This increased to 50% immediately after the intervention, but it decreased to only 24% three months after the intervention. Fox (1982) found that nurse-physician relationships were a likely factor when nurses were reluctant to recommend changes in pain management to physicians.

McCaffery and Ferrell (1995) surveyed nurses in Australia, Canada, Japan, Spain, and the United States about their knowledge of cancer pain management. Although results varied in some of the survey items, 25% or more of nurses in each country expressed the attitude that patients over-report their pain. In addition, Howell et al. (2000) found that nurses believed that their patients should experience pain before being given pain medication. These two beliefs are sure to discourage nurses from providing adequate administration of analgesics. Nurses also may adhere to rigid dosing schedules instead of individualizing schedules and believe that the goal of chronic pain management is to achieve the lowest possible dose of medication (Strevy, 1998). Even in the face of ongoing, unrelieved pain, some nurses administer less-than-maximum prescribed doses at longer-than-prescribed intervals (Fox, 1982; Howell et al.; Marks & Sachar, 1973).

A compounding problem lies in the domain of nursing education. In baccalaureate nursing programs, nursing faculty with limited understanding of opioid analgesics may pass on misinformed beliefs about drug-seeking and clock-watching behaviors of patients to nursing students (Ferrell et al., 1993), thus perpetuating negative attitudes about patients with pain.

Physicians' attitudes can be another barrier to optimal pain management when inadequate doses of analgesics are prescribed. Although younger physicians, especially those in oncology practices, have more liberal attitudes about pain management, many physicians wait until patients' prognoses are less than six months before prescribing pain medication (O'Brien et al., 1996). Howell et al. (2000) found that when nurses discussed their patients' unrelieved pain with physicians, physicians seldom increased doses or changed analgesics. Anderson et al. (2000) investigated attitudes and practices of healthcare providers who treat minority patients with cancer. They surveyed 108 African American and Hispanic patients with advanced cancer who were pain to determine the attitudes of their healthcare providers. Results showed that 28% of the Hispanic and 31% of the African American patients received inadequate analgesics to manage their pain. Physicians underestimated pain severity 64%–74% of the time, and the pain of women was underestimated more often than that of men. The physicians involved in this study were mostly white men. A limitation of the study was that no comparison group of patients existed, so inferences could not be made regarding whether healthcare providers demonstrate similar attitudes about pain management with minority and nonminority patients with cancer.

Negative patient attitudes also may create barriers to effective pain management. Paice et al. (1998) conducted a study of barriers to cancer pain relief. In the study, many

patients expressed fear or concern about bothering nurses and about tolerance and addiction. Fear of tolerance was more prominent than fear of addiction among patients reporting the highest levels of pain. This suggests a significant need for patient education about tolerance and addiction. Nurses will have difficulty allaying their patients' fears when the nurses also lack adequate knowledge and have negative attitudes about patient tolerance and addiction to analgesics.

Patients with cancer fear pain and often endure unrelieved pain even though cancer pain relief is achievable. Barriers to effective cancer pain management include the lack of knowledge and the negative attitudes about cancer pain relief that many nurses, physicians, and patients exhibit.

Whether oncology nurses are more knowledgeable and have more positive attitudes about cancer pain management than nononcology nurses is not clear. As stated previously, no baseline data have been collected about nursing knowledge and attitudes about cancer pain management in Utah. The purpose of this study was to compare the knowledge and attitudes of oncology and nononcology nurses in the state of Utah regarding cancer pain management.

## Methods

After receiving university institutional review board approval, a random sample of 1,500 nurses was obtained from the RN licensure listing for the state of Utah. The random sample was computer-selected by list managers. A university statistician suggested 1,500 as the number of participants that was sufficient to produce significant results.

### Instruments

A **demographic tool** of 23 items was developed by the study's principal investigators. Demographic items included age, education, number of years of experience as an RN and in caring for patients with cancer, past and present employment status, exposure to education about cancer pain management, and personal cancer experience. **Nurses' Knowledge and Attitudes Survey Regarding Pain**, developed by Ferrell et al. (1993) to assess knowledge and attitudes about cancer pain management, was used in this study to evaluate the study participants' knowledge and attitudes about cancer pain control. The tool was developed over several years and consists of 37 items. Content of the tool was established from standards of pain management from the American Pain Society, World Health Organization, and AHCPR. Content validity was established by a review of pain experts. Construct validity was established by comparing scores of nurses at various levels of expertise, such as students, new graduates, oncology nurses, graduate students, and experienced senior pain experts. The tool was found to discriminate between these levels of expertise. Reliability of test-retest situations was established ( $r > 0.80$ ) in a continuing education class of staff nurses ( $N = 60$ ) through repeated testing. Internal consistency reliability was established ( $\alpha > 0.70$ ) with items reflecting knowledge and attitude domains. Ferrell (1994) reported that avoiding distinguishing items that measured either knowledge or attitudes was helpful because many items measure both characteristics. Data were analyzed in terms of the percentage of complete scores as well as individual items.

## Procedure

Potential study participants received a letter of explanation, the demographic survey, the Nurses' Knowledge and Attitudes Survey Regarding Pain, and a stamped, pre-addressed return envelope. Return of the questionnaire provided implied consent for participation in the study. One mailing was sent. The same materials also were sent to all members (N = 100) of the Intermountain Chapter of the Oncology Nursing Society. The researchers assumed that nurses who are members of the Oncology Nursing Society would have a current knowledge base and attitudes in line with current practices of managing cancer pain. The two lists were crossreferenced to avoid sending two packets of materials to nurses who were members of the chapter and also listed on the Utah state list.

## Data Analysis

A comparison of the demographic information between oncology and nononcology nurses was completed using chi-square analysis for nominal data and analysis of variance (ANOVA) for continuous data. Differences between oncology and nononcology nurses in relation to demographics were tested at the  $p = 0.01$  level. This was done to reduce the probability of identifying differences erroneously.

The answer to each question in the knowledge and attitudes questionnaire (true or false and multiple choice) was either correct or incorrect. For the multiple-choice questions, any answer other than the correct answer was scored as incorrect. The total number of correct responses was tallied for each respondent, and comparisons were made between groups by using ANOVA. Individual questions also were compared through chi-squared analyses. As with the demographic information,  $p = 0.01$  was used for individual analyses.

## Results

Surveys from 44 oncology nurses and 303 nononcology nurses were returned and used in the data analysis. Analysis of the demographic information showed no significant differences between the two groups in age or years of experience. However, the oncology nurses had more formal education than the nononcology nurses. The oncology nurses also worked in larger hospitals, cared for more patients with cancer and in chronic pain, and had more recent pain management education than nononcology nurses (see Table 1). ANOVA for total scores on the Nurses' Knowledge and Attitudes Survey Regarding Pain indicated that the oncology nurses' total score was significantly higher than the nononcology nurses' total score (see Table 2).

Significant differences were found in how the oncology and nononcology nurses answered 14 questions (see Table 3). In three of these questions (numbers 13, 21, and 29), although a significant difference existed between oncology and nononcology nurses, the percentage of incorrect answers was small. Oncology nurses answered the 14 questions correctly significantly more often than nononcology nurses did. No significant differences existed in the remaining questions in the instrument. In addition, oncology nurses missed five questions more than 40% of the time (numbers 6, 9, 12, 26, and 28), and nononcology nurses missed 15 questions more than 40% of the time (numbers 6, 7, 8, 9, 11, 12, 14, 23, 25, 26, 28, 34, 35,

**Table 1. Comparative Demographics**

Characteristic	Oncology Nurses (N = 44)		Nononcology Nurses (N = 303)	
	n	%	n	%
<b>Age (years)</b>				
Range	26–65		21–75	
$\bar{X}$	45		42	
<b>Years licensed</b>				
Range	1–44		1–47	
$\bar{X}$	24		25	
<b>Years employed</b>				
Range	1–36		1–42	
$\bar{X}$	22		23	
<b>Number of hospital beds<sup>a</sup></b>				
Range	86–600		11–650	
$\bar{X}$	341		218	
Characteristic	n	%	n	%
<b>Education<sup>a</sup></b>				
High school diploma	5	11	13	4
Associate degree	6	14	136	45
Bachelor's degree	21	48	123	41
Master's degree	10	23	27	9
Doctorate	2	4	4	1
<b>Work status<sup>a</sup></b>				
Full-time	38	86	78	59
Part-time	6	14	92	31
Unemployed	–	–	31	10
<b>Area of employment (top three)</b>				
Hospital	33	75	191	70
Clinic or office	7	16	17	6
Education	3	7	–	–
Home health	–	–	29	11
<b>Area of work<sup>a</sup></b>				
Oncology	34	81	–	–
Miscellaneous	–	–	54	21
Medical or surgical	–	–	48	18
Intensive care unit	–	–	33	13
<b>Work position: Staff nurse</b>	27	61	192	70
<b>Number of patients with cancer cared for in past six months<sup>a</sup></b>				
Greater than 20	36	82	–	–
Less than 20	–	–	355	86
<b>Patients with cancer with pain lasting longer than one month<sup>a</sup></b>				
Greater than 40%	23	64	–	–
20% or less	–	–	121	65
<b>Access to pain management teams</b>	27	61	116	44
<b>Pain management teams helpful</b>	26	96	104	88
<b>Pain management education</b>				
Fair or poor	39	90	234	83
<b>At least four hours of pain education in past two years<sup>a</sup></b>	33	75	41	14
<b>Would attend pain management course</b>	30	75	167	59
<b>Personal cancer experience</b>	1	2	19	6
<b>Friend or family experience with cancer</b>	32	73	215	73
<b>Personal pain experience</b>	20	46	119	40
<b>Friend or family experience with pain</b>	32	74	232	79

<sup>a</sup> A statistically significant difference existed between oncology and nononcology nurses.

**Table 2. Summary of Nurses' Knowledge and Attitudes Survey Regarding Pain Scores for Oncology and Nononcology Nurses**

Analysis of Variance for Total Score					
Source	df	Sum of Squares	$\bar{X}$ Square	F	p
Nurse type	1	1400.8	1400.80	61.3	< 0.0001
Error	303	7905.4	22.91	–	–

Nurses' Knowledge and Attitudes Survey Regarding Pain Scores					
Group	N	$\bar{X}$	SD	Actual Score Range	Possible Score Range
Oncology	44	32	4.0	24–38	0–39
Nononcology	303	26	4.9	9–38	0–39

36a, and 36b). Differences in scores on questions 6, 7, 8, and 26 were not statistically significant but have been listed in Table 3 for the convenience of the reader. The percentage of incorrect answers is found in Table 3.

After examining the results of the objective test by individual test item, the researchers noted that the oncology nurses missed five items related to the pharmacologic aspects of analgesia more than 40% of the time. Forty-three percent of oncology nurses did not understand that aspirin and other nonsteroidal anti-inflammatory drugs were effective analgesics for bone pain associated with cancer pain (question 6); 59% did not know that 650 mg of aspirin is approximately equal to 50 mg of oral meperidine (question 9); 63% thought that phenergan was an effective drug (question 12); 26% did not understand the concept of morphine equianalgesia (question 26); and 45% did not know there was less than a 1% chance of respiratory depression from high-dose morphine (question 28) among patients being treated for chronic cancer pain.

The nononcology nurses missed 15 items more than 40% of the time. In addition to questions 6, 9, 12, and 28, nononcology nurses could not answer questions about the appropriateness of pain control methods other than pharmacologic methods (question 7), the rate of occurrence of respiratory depression in patients using opioids (question 8), the duration of action of meperidine (question 11), the ceiling dose of morphine (question 14), the appropriate route of opioid administration (question 23), the use of morphine for prolonged moderate and severe pain (question 25), the overreporting of pain (question 34), addiction (question 35), and pain assessment and the appropriate administration of opioids to treat that pain (questions 36a and 36b). Questions 13, 21, and 29, which showed a significant difference between oncology nurses and nononcology nurses but not a high incorrect rate, deal with risk for drug addiction, placebo effect, and the frequency of medication administration in chronic cancer pain.

## Discussion

Oncology nurses had a better grasp of cancer pain management principles than nononcology nurses. This finding is consistent with other research (O'Brien et al., 1996). However, oncology nurses had difficulty with some questions regarding the pharmacology of analgesics. Nononcology nurses have less understanding of cancer pain control principles. Both findings are consistent with previous research. However, a

concern exists when nononcology nurses have less knowledge about cancer pain control because nononcology nurses still interact with patients with cancer and their families, their own families, and the community. These findings also are consistent with the studies by Sheidler et al. (1992), McCaffery and Ferrell (1997), and Strevy (1998). Nononcology nurses should be able to present correct information about cancer pain management to the populations with which they interact. Members of both nursing groups had received continuing education on cancer pain management and were interested in more education.

## Study Limitations

A limitation of this study was the small sample size of the oncology nurses. For the purposes of this study, oncology nurses were defined as members of the local chapter of the Oncology Nursing Society because they were known to be involved actively in the care of patients with cancer and had access to continuing education opportunities and peers with whom to consult about difficult cancer pain situations. At the time that the survey was mailed, the local chapter of the Oncology Nursing Society had about 100 members. Even if all of the members of the chapter had returned their surveys, the sample would have been smaller than the group of nononcology nurses. In retrospect, a reminder card mailed to those who did not return their surveys with the initial mailing might have increased the size of the sample of oncology nurses. Also, because the group of oncology nurses had only 100 members, using a premailing design of a matched sample of oncology and nononcology nurses might have made the groups easier to compare. An attempt to match the samples after the surveys were returned did not change the results of the study.

## Conclusions

Nurses must be educated continually about principles of cancer pain management, regardless of whether they care for patients with cancer on a daily basis, because they may be seen as experts by their own families and communities. Nurses must understand these pain management principles to teach or apply them when necessary.

Further, this study included only nurses in the state of Utah. The study is a prototype of what other states may wish to do to determine their needs for supportive measures to improve adoption of evidence-based practice in cancer pain management. Multistate studies would increase that sample size and

**Table 3. Selected Survey Questions (and Answers)**

Question (Answer)	Oncology Nurses (N = 44)			Nononcology Nurses (N = 303)			p
	n	% Correct	% Incorrect	n	% Correct	% Incorrect	
6: Aspirin and other nonsteroidal anti-inflammatory agents are NOT effective analgesics for bone pain caused by metastases. (False)	44	57	43	288	41	59	0.0533
7: Nondrug interventions (e.g., heat, music, image) are very effective for mild to moderate pain control but are rarely helpful for more severe pain. (False)	43	60	40	302	53	47	0.3569
8: Respiratory depression rarely occurs in patients who have been receiving opioids over a period of months. (True)	44	77	23	294	59	41	0.0193
9: Aspirin 650 mg by mouth is approximately equal in analgesic effect to meperidine 50 mg by mouth. (True)	43	40	60	288	18	82	0.0010
11: The usual duration of action of meperidine intramuscularly is four to five hours. (False)	44	68	32	301	46	54	0.0056
12: Research shows that promethazine is a reliable potentiator of opioid analgesics. (False)	43	37	63	290	16	84	0.0010
13: Patients with a history of substance abuse should not be given opioids for pain because they are at high risk for repeated addiction. (False)	44	91	10	288	71	29	0.0050
14: Beyond a certain dosage of morphine, increases in dosage will NOT increase pain relief. (False)	44	86	14	284	56	44	0.0001
21: Giving patients sterile water by injection (placebo) is often a useful test to determine if the pain is real. (False)	44	98	2	286	80	20	0.0047
23: The recommended route of administration of opioid analgesics to patients with prolonged cancer-related pain is: (oral)	42	83	17	283	28	72	< 0.0001
25: Which of the following analgesic medications is considered the drug of choice for treatment of <u>prolonged moderate to severe pain</u> for cancer patients? (morphine)	41	95	5	288	45	55	< 0.0001
26: Which of the following IV doses of morphine administered over a four-hour period would be equivalent to 30 mg of oral morphine given every four hours? (morphine 10 mg IV)	38	55	45	254	48	52	0.4056
28: The likelihood of a patient with chronic cancer pain developing clinically significant respiratory depression with the use of higher levels of hourly narcotics is: (less than 1%)	42	52	48	254	27	73	0.0010
29: Analgesia for chronic cancer pain should be given...: (around the clock)	44	100	0	292	85	15	0.0057
34: What do you think is the percentage of patients who <u>overreport</u> the amount of pain they have? (0%–10%)	44	86	14	288	55	45	< 0.0001
35: How likely is it that opioid addiction will occur as a result of treating pain with opioid analgesics? (1%)	43	74	26	288	32	68	< 0.0001
36a: Andrew, one day after abdominal surgery, smiles and reports his pain as an 8. How would you record his pain on a scale of 1–10? (8)	43	91	9	292	58	42	< 0.0001
36b: Robert, one day after abdominal surgery, lying in bed and grimacing, reports his pain as an 8. How would you record his pain on a scale of 1–10? (8)	44	64	36	295	36	64	0.0004

Note. Because of rounding, not all percentages total 100.

allow further statistical analysis. Such multistate or regional studies would be helpful in planning continuing education for nurses.

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## For more information . . .

- Cancer Pain Management in Children  
[www.childcancerpain.org](http://www.childcancerpain.org)
- University of Texas M.D. Anderson Cancer Center: Pain Management Center  
[www.mdanderson.org/topics/paincontrol](http://www.mdanderson.org/topics/paincontrol)

*Links can be found using ONS Online at [www.ons.org](http://www.ons.org).*