

Attitudes and Practices of Physician Assistants in the state of Kansas with Regards to
Opioid Management in Chronic Non-Malignant Pain Patients

Submitted by

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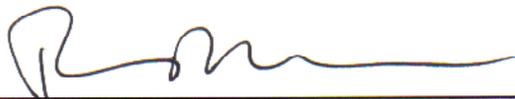
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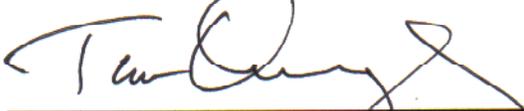
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We hereby recommend that the research project prepared under our supervision by Ann Weaver entitled Attitudes and Practices of Physician Assistants in the state of Kansas with Regards to Opioid Management in Chronic Non-Malignant Pain Patients be accepted as partial fulfillment for the degree of Master of Physician Assistant.

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Abstract

Introduction: Acute and chronic pain are common conditions practitioners continually face in diagnosing and treating patients. The use of prescribing opioids in chronic non-malignant pain (CNMP) patients is controversial due to fear of legal issues and a lack of awareness of state guidelines for treatment. The purpose of this research was to investigate the attitudes and practices of Physician Assistants (PAs) in Kansas in the treatment of CNMP and their awareness of state guidelines for controlled substances.

Methods: A cross sectional, non-randomized survey study was administered to all licensed PAs (N=577) in the State of Kansas in 2005. The survey consisted of specific questions regarding attitudes toward opioid management, prescribing habits, and familiarity with the recommended guidelines of the State of Kansas. *Results:* Slightly less than half of the PA's in this study were aware of state guidelines for the use of controlled substances in CNMP and actively followed three of the five clinical documentation recommendations. Among the 177 PAs responding to the survey, only nine percent stated they would never prescribe an opioid for the use of CNMP. There was a significant relationship between awareness of state guidelines and clinical documentation of a history and physical, treatment, and informed consent. *Conclusion:* Practitioners continue to be hesitant in prescribing opioids for CNMP due to concern for legal issues and fear of potential substance abuse in patients. This pilot study highlights the need for larger studies of primary clinicians and the potential of patient undertreatment of CNMP.

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Introduction

Pain, both acute and chronic, are common conditions primary care providers are continually faced with in diagnosing and treating patients. Chronic non-malignant pain (CNMP) is generally defined as pain lasting longer than 6 months that is not related to cancer or another condition expected to end a patient's life within 6 months. There are a wide variety of treatment options available for CNMP patients such as nonsteroidal anti-inflammatory drugs, opioids, nerve block injections, psychotherapy, physical therapy, antidepressants, and muscle relaxants for primary care providers (PCP) to prescribe.^{1,2,3} Opioid prescribing by PCP for the treatment of CNMP continues to be a controversial debate regarding the effectiveness and overall improvement of the patient, including when it is appropriate to place a patient with CNMP on an opioid.³

Primary care practitioners also face frustration with CNMP patients because these individuals often have no clear identification for the cause of their pain. This leads PCPs to rely on effective guidelines, specialists, and education for the appropriate treatment.¹ In 1998, the Kansas State Board of Healing Arts approved guidelines for the use of controlled substances for the treatment of pain.⁴ These guidelines served to protect practitioners in the prescribing of controlled substances. However, it remains unclear whether practitioners are aware of state guidelines for the use of prescribing controlled substances for CNMP. The State of Kansas allows physician assistants to apply for their own DEA number for the use of prescribing controlled substances. It remains uncertain how many of them actually prescribe controlled substances for CNMP on a daily basis and how aware they are of the guidelines available to them.

Literature Review

A review of the literature was undertaken by utilizing Medline, Pubmed, National Guidelines Clearinghouse, CINAHL, and InfotracWeb database from 1970 to present. The search was conducted using keywords of primary care, opioid, chronic non-malignant pain, physicians, and physician assistants. There are multiple studies suggesting a variety of attitudes and practices of physicians in regards to opioid management in CNMP patients, but there are no studies analyzing similar features for physician assistants.^{1,3,5,6,7}

Potter et al, performed a survey among primary care physicians in the State of California investigating their attitudes, prescribing practices, and factors related to their willingness to prescribe opioids for CNMP patients. Their survey found that 42% of them would never prescribe a long-acting Schedule II drug for CNMP with post herpetic neuralgia, 57% would never prescribe Schedule II drug for CNMP with low back pain, and 75% would never prescribe a Schedule II for CNMP patients with daily headaches. However, these same physicians were more willing to use a Schedule III drug for CNMP patients with the same conditions. Their reasoning behind the difference between prescribing a Schedule II versus Schedule III drug was they were concerned about physical dependence, tolerance and addiction, side effects, little optimism about being able to efficiently help the patient, lack of enjoyment in treating these patients, and a decreased awareness of guidelines and education regarding opioids in CNMP patients.¹

Grahmann et al, performed a nationwide survey among medical directors in pain clinics and pain centers discussing the role of opioid use among different types of CNMP patients. The survey found that opioids should be used as adjunctive therapy for patients

with CNMP except those who have chronic headaches, myofascial pain, and fibromyalgia where no opioid therapy should be administered. This study provided support towards opioid use in a majority of patients with CNMP. However, they did express concerns with prescribing opioids in CNMP patients for fear of developing addiction and dependence, regulatory oversight, and lack of efficacy.⁷

Studies conducted world-wide have proven a concern for treatment of opioids with CNMP.^{5,6} A Canadian study done in 2003 reported that 68% of primary care physicians believed that severe pain was not well managed and their patients are suffering needlessly.⁵ In that same year, another study was conducted in the United Kingdom which reported that less than half of the patients with CNMP received optimal control of their symptoms.⁶ Barriers to adequate pain control in CNMP in both of these studies were concerns about a lack of education and effective guidelines for the treatment of these patients, apprehension about physical dependence, and a feeling of helplessness for the treatment of CNMP.^{5,6} These concerns and barriers continue to be a world-wide concern. However, there is an increase in the number of world-wide primary care physicians who recognize and believe the benefits of opioid management outweigh the disadvantages in the treatment of CNMP.

National guidelines for the appropriate use of opioid management in CNMP patients have not been created. However, each individual state has adopted a set of guidelines from the American Academy of Pain Management for the use of controlled substances in the treatment of pain. These state guidelines were developed in order to help reduce fear of regulatory scrutiny among those who prescribe opioids in CNMP patients. These state guidelines explain that those patients receiving opioid therapy for

their pain should be placed on this treatment after receiving a complete history and physical, an appropriate diagnosis, documented objectives for improved physical and psychosocial functioning, informed consent, frequent follow up visits, and a review of the course of treatment in regards to the progression of the stated treatment goals.⁴ In California only 39% of those primary care physicians surveyed remembered reading the guidelines one year after they were mailed.¹ Furthermore, the fear of legal investigation still appealed to prohibit their prescribing practices of opioids in CNMP.¹

Current research has investigated the attitudes and practices of primary care physicians in regards to opioid management with CNMP patients. Physician Assistants and Nurse Practitioners with active Drug Enforcement Agency numbers are allowed to prescribe opioids for patients with CNMP, although there no studies on their attitudes and practices with opioids in regards to CNMP. Further investigation is needed to seek practitioners awareness of the states guidelines, and their beliefs and barriers related to opioid therapy in patients with CNMP in an effort to have a better understanding of all opioid prescribers. In the end, their information may be helpful for education and policy development purposes.

Purpose of the Study

Analysis of the literature has suggested that primary care physicians are hesitant in prescribing opioids for patients with CNMP because of fear of legal issues, fear of patients' developing addiction and physical dependence, medication side effects, and a lack of informative education and guidelines for the treatment of patients with CNMP.^{1,3,5,6,7} However, there are no studies concerning whether the same practices and

beliefs holds true for physician assistants. Therefore, the purpose of this study is to investigate the attitudes and practices are of physician assistants in the State of Kansas regarding opioid management in CNMP patients. The null hypothesis is that physician assistants will actively follow the state recommended guidelines for the use of controlled substances in the treatment of CNMP.

Methods

Design

A cross sectional, non-randomized survey was administered through the Physician Assistant Department at Wichita State University to all licensed physician assistants in the state of Kansas in 2005. The Kansas State Board of Healing Arts assisted with identification of licensed physician assistants in the state of Kansas. The survey instrument from the UCSF Collaborative Research Network, which had been a piloted study and determined to be a valid and reliable, was and mailed to all licensed physician assistants in Kansas.¹ This survey consisted of specific questions regarding attitudes towards opioid management, prescribing habits, and familiarity with and practicing policies with the recommended guidelines of the State of Kansas.¹ The cover letter included a list of terms for the participant to use. Chronic Nonmalignant Pain was defined as pain that has lasted longer than six months and is not related to cancer or cancer treatment and not related to a condition, which is expected to end a patient's life within a six months time frame. The subjects were given a four week time frame in which to complete and return the survey. The information obtained from these individuals were maintained in a confidential manner and kept in a secure location. Self-addressed

stamped envelopes were provided for participants. This project was approved by Wichita State University's Institutional Review Board prior to conducting the study.

Participants

The physician assistants asked to participate in this survey study were identified through the assistance of the Kansas State Board of Healing Arts. The survey instrument was mailed to a sample population of 557 licensed physician assistants in the State of Kansas in the spring of 2005. Those who completed and submitted their requests were considered the study population to be examined. The examined population for this study included 177 participants who responded to the survey.

Data Analysis

Data was analyzed using SPSS version 12.0. Means and standard deviations for frequency distributions were calculated to summarize physician assistant characteristics and estimates of the characteristics of their caseloads. Relationships between physician assistants awareness of the states guidelines for prescribing controlled substances for treatment of pain and their clinical documentation of their patients on opioids with CNMP were analyzed by the use of the chi-square statistic.

Results

Physician Assistants Practice Characteristics

A total of 177 of 557 physician assistants (32%) completed the survey. The demographic and clinical characteristics of the participants are presented in tables 1 and 2.

Table 1.

Percent Frequency Sample Population Characteristics (N=171)

Age Category:	21-30	31-40	41-50	51-60	>70	
	22.2	29.2	28.1	19.9	.6	
Gender/Sex:	Female	Male				
	63.7	36.3				
Ethnic/Race:	African American	Asian	Latino	Hispanic	Native American	White
	1.2	1.2	1.2		3.5	92.9
Primary Location:	Rural	Suburban	Urban			
	39.1	20.7	40.2			

Physician assistants reported seeing an average of 34 CNMP patients (SD= +/- 86.93) in one month and an average of 25 patients received opioid medication presented in Table 3.

Table 2.

Physician Assistants Practice Characteristics

Number of Patients	Mean	Standard Deviation
Seen in 1 month (N=171)	303.63	199.53
Seen in 1 month with CNMP (N=169)	34.18	86.93
Seen in 1 month with CNMP and treated with an opioid medication (N=169)	25.44	86.79

Among the physician assistant responding to this survey, 48% of them were in family practice, 14% in surgery subspecialty, 11% in the other category, and 10% percent in emergency medicine as presented in table 3.

Table 3.

Percent Frequency of Current Practice Setting (N=177)

Primary Practice Setting	Percent
Family Practice	48.0
Internal Medicine	4.1
Internal Medicine Subspecialty	7.0
OB/GYN	1.2
Pediatrics	1.8

Emergency Medicine	10.5
General Surgery	1.2
Surgery Subspeciality	14.0
Other	11.7

*See appendix for further subspeciality and other practices.

Attitudes and Practices of Physician Assistants

Among the 177 physician assistants responding in this study, nine percent stated they would never prescribe an opioid for the use of CNMP. Only seven percent agreed with the statement, “I enjoy working with CNMP patients.” However, 30% disagreed with the statement that daily opioids use for CNMP should not be used. In addition, 41% believed that compared to their colleagues they are more likely to prescribe opioids for CNMP.

Most physician assistants (37%) wait for their patients to suggest the use of an opioid for their treatment before prescribing them. In addition, slightly over half of the physician assistants in the State of Kansas are rarely the first provider to prescribe opioids for CNMP. Thirty-nine percent of the participants require their patients to undergo an evaluation by a specialist before they will prescribe opioids for CNMP. Physician assistants with a new CNMP patient already on an opioid are sometimes hesitant to continue prescribing them (65%). Furthermore, 39% stated, “they are willing to refill an opioid prescription for a patient of their colleague in their practice or call group.” However, 30% responded, “they were rarely likely to refill and opioid over the phone without an office visit for patients who were maintained on opioids in their practice.”

When asked specific questions regarding opioid use in CNMP after exhaustive evaluation and treatment, physician assistants were somewhat hesitant in prescribing opioids as needed and in fixed around-the-clock situations. Several physician assistants

(39%) stated they would sometimes prescribe opioids as needed for CNMP, and 40% would rarely prescribe opioids on a fixed, around-the-clock basis for CNMP as presented in table 4.

Table 4.

Percent Frequency of those after exhaustive evaluation & treatment will prescribe (N=155)

	Always	Usually	Sometimes	Rarely	Never
Opioids as prn	6.3	31.4	39.0	22.0	1.3
Opioids fixed, around the clock	1.9	12.9	32.9	40.6	11.6

However, most physician assistants in their current practice under certain circumstances would prescribe long acting opioids around the clock for patients with chronic low back pain (62%) and post-herpetic neuralgia (51%). Yet, over 82% under no circumstances would prescribe opioids for chronic daily headaches.

The physician assistants were asked questions regarding situations where they would never prescribe opioids even if recommended by a specialist. Over 50% would never prescribe opioids for a current substance abuser, and 37% would rarely prescribe opioids for a prior substance abuser. When prescribing opioids for patients with CNMP under the age of 18, physician assistants are rarely likely to prescribe them. However, 41% stated they would usually prescribe opioids for a CNMP patient over the age of 65.

When asked about barriers to prescribe opioids for CNMP patients, 27% were somewhat hesitant to prescribe opioids for CNMP due to a fear of legal investigation. However, the majority (94%) had never been investigated by the U.S. Government for dispensing prescription medication. A majority of the participants in this study have

never personally suffered from CNMP (85%), never prescribed opioids for friends and family members with CNMP (77%), and have never taken opioids for any condition (51%). Slightly less than half of the physician assistants in this study stated they had adequate knowledge in the treatment of chronic low back pain, post-herpetic neuralgia, and chronic daily headaches as presented in table 5.

Table 5.

Percent frequency of those with adequate knowledge of the treatment of (N=154)

	Strongly Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Strongly Agree
Chronic Low Back Pain	4.0	11.3	13.6	49.7	21.5
Post-herpetic Neuralgia	2.8	10.7	16.4	46.3	23.7
Chronic Daily Headaches	4.5	17.5	22.0	45.8	10.2

Familiarity with State Guidelines and Clinical Documentation

Slightly less than half of the PAs in this study (47%) were aware of state guidelines for the use of controlled substances in CNMP and actively followed three of the five clinical documentation recommended as presented in table 6 and 7.

Table 6.

Percent Frequency of those who have read guidelines for Prescribing Controlled Substances for the Treatment of Chronic Pain by Kansas State Board Healing Arts (N=177)

	Yes	No
Read Guidelines	47.4	52.6

Table 7.

Percent frequency of colleagues who would find the following in my clinical note:

	Always	Usually	Sometimes	Rarely	Never
History and Physical including Appropriate Justification for Opioid Meds	52.3	41.8	4.6	.7	.7
Treatment plan with stated objectives by which successful treatment can be evaluated	23.4	40.3	27.3	7.1	1.9
Documentation of informed consent	25.5	30.7	17.6	19.0	7.0
Periodic reassessment of chronic pain	47.7	41.2	8.5	2.0	.7
Agreement between my patient and I regarding the rules for med use and consequences for misuse.	33.3	28.3	17.8	10.5	9.9

There was a significant relationship between awareness of Kansas state guidelines for prescribing controlled substances for chronic pain and clinical documentation of a thorough history and physical ($p=.012$), documented treatment plan ($p=.002$), and informed consent to the opioid treatment plan ($p=.006$). However, there were no significant relationships between awareness of Kansas state guidelines for prescribing controlled substances for chronic pain and clinical documentation of a SOAP note stating reassessment of their patient after starting the treatment of opioids ($p=.230$). There were no significant relationships between the awareness of state guidelines and clinical documentation of a contract agreement between the patient and the physician assistant

($p=.281$) stating the patient will only use one practitioner to prescribe their opioids, get their prescriptions filled at one particular pharmacy, and be subjected to random urine drug screens.

Discussion

The majority of physician assistants were willing to prescribe opioids for patients CNMP under certain circumstances. However, the fear of potential development of substance abuse continues to be a barrier for prescribing opioids for CNMP. For example, this study showed physician assistants would not prescribe opioids for CNMP patients with a prior or current substance abuse problem, or an individual less than eighteen years of age even if recommended by a specialist due to increased concern of addiction problems. This finding is similar to the results found in the study that was previously done with primary care physician in California.¹ Substance abuse continues to be an issue for providers with prescribing opioids for CNMP and further research is needed to investigate practitioners concerns with physical dependence, tolerance, and addiction in relationship to opioids for CNMP patients.

Fear of legal investigations is another important barrier physician assistants in this population face when prescribing opioids for CNMP patients. In addition, slightly more than half of the participants in this study were unaware of Kansas state guidelines for prescribing controlled substance. Similar results were found with primary care physicians in California in their awareness of state guidelines for prescribing controlled substances.¹ Lack of national guidelines could be the result of practitioners fear of legal investigations with prescribing opioids for CNMP. However, enhanced awareness of state guidelines may help ease the fear of legal investigations for practitioners. It is

encouraging to see physician assistants in this study already following three of the five recommend guidelines in their current practice for opioids in CNMP. Further knowledge of state guidelines may also increase compliance in following the recommendations. Further investigation is needed to see if the barrier of the fear of legal investigations would be eliminated when physician assistants were knowingly informed of state guidelines for prescribing controlled substances.

Additional education regarding CNMP is needed in order to help physician assistants improve their knowledge and treatment of CNMP. This study found that slightly less than half of the physician assistants agreed with the statement they had adequate knowledge of CNMP with regards to low back pain, post-herpetic neuralgia, and chronic headaches. They expressed a dislike in treating patients with CNMP, which could be the result of a lack of education in this specific area of medicine. Specific lectures on CNMP and treatment with opioids should be incorporated into the curriculum of physician assistant education. This would hopefully enhance physician assistant students' knowledge and later as practitioners, regarding the treatment of CNMP. Continuing education is another way for current practicing physician assistants to increase their knowledge of CNMP. It may enhance their confidence in their patient's treatment plan, and have an optimistic attitude about working with CNMP patients.

Limitations

There are some limitations to this study. First of all, the physician assistants surveyed in this study do not represent all the practicing physician assistants in the United States and only a small number in Kansas. Barriers to prescribing opioids in Kansas may be different, than those barriers faced by physician assistants in other parts of the country.

Therefore, our results may not be generalized to other parts of the United States. Future studies need to be conducted nation wide in order to gain a generalized view of the barriers physician assistants face in regards to the treatment of CNMP with opioid management. However, the lower response rate the results from this study were similar to other studies conducted worldwide.

Another limitation to our study is that we were not able to specifically look at the attitudes and practices of primary care physician assistants in the State of Kansas. Regrettably, in our original search for participants in this study, we were unable to separate a specific area of practice for each certified and licensed physician assistants in Kansas. However, a majority of the participants in this study were physician assistants practicing in primary care. Nevertheless, our results were similar to the results found in a recent study conducted in California regarding primary care physicians.¹ Future studies are needed to be conducted looking specifically at physician assistants practicing in primary care nation wide.

Conclusion

Practitioners continue to be hesitant in prescribing opioids for CNMP due to concern for legal issues and fear of potential substance abuse in patients. Increased awareness of state guidelines for prescribing controlled substances in CNMP could help ease physician assistants fear for legal investigations when prescribing opioids. Further education in regard to CNMP to physician assistants may also help enhance their attitudes toward treatment of patients with these conditions. This pilot study highlights the need for larger studies of primary physician assistants in regards to opioid treatment of CNMP.

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Appendix

Percent frequency of those in Internal Medicine Subspecialty (N=177)

Cardiology	93.3
Dermatology	2.2
Endocrinology	1.2
Gastroenterology	.6
Geriatrics	.6
Nephrology	.6
Oncology	.6
Pulm/Critical Care	.6

Percent frequency of those in Surgery Subspecialty (N=177)

Neurosurgery	87.1
Orthopedics	6.7
Orthopedics/Spine	4.0
Otolaryngology	.6
Vascular	.6

Percent Frequency of those in Other Practice (N=177)

Behavioral Medicine	88.2
College Student Health	1.2
Correctional	1.8
General Vascular	.6
Immediate Care	.6
Occupational Medicine	.6
Pain Management	.6
Physical Medicine/Rehab	1.8
Psych	.6
Urgent Care	.6

Vita

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