

Approaches of Nurses to Chronic Disease Patients with Pain

*Tülay Kars Fertelli¹, Fatma Özkan Tuncay², Mukadder Mollaoğlu³

¹(Nursing Department / Cumhuriyet University Faculty of Health Sciences, Assist. Prof., PhD.Turkey)

²(Nursing Department / Cumhuriyet University Faculty of Health Sciences, Assist. Prof., PhD.Turkey)

³(Nursing Department / Cumhuriyet University Faculty of Health Sciences, Prof., PhD. Turkey)

Corresponding Author: *Tülay Kars Fertelli

Abstract:

Aim and objectives. We preferred to perform a descriptive study in order to evaluate the pain assessment status of nurses caring for patients with pain and determine their methods in pain management.

Background. Pain assessment has an important effect on determination, application, and outcome assessment of personalized pharmacological or non-pharmacological methods that can be used in pain management.

Design. This research was conducted as a descriptive survey.

Methods. A total of 153 nurses who provided pain relief to their patients between January-June 2012 constituted the study sample. In this study, written informed consent was obtained from each nurse prior to the study. The data were collected by Personal Information Form (PIF) and Pain Management Methods Form (PMMF). Statistical analyses were done with SPSS package program using frequency and percentage values.

Results: In the study, 52.9% of the nurses were found to apply no pain assessment. In pain management, 48.4% were observed to use only pharmacological intervention, whereas 38.5% of the non-pharmacological interventions for pain relief were found to be a combination of touching, attention diversion, and talking about the pain. 5.9% of the nurses were found to do nothing for pain management despite having done a pain assessment.

Conclusion: Most of the nurses do not perform pain assessment in patients with pain and generally prefer pharmacological methods for pain management.

Keywords: pain, pain assessment, pain management, health workers, nursing

Date of Submission: 27-09-2017

Date of acceptance: 10-10-2017

I. Introduction And Background

Every person suffers from pain at one point in their lives. Pain is a complex and unpleasant personal feeling that causes discomfort (Özveren & Uçar 2009). Pain experience may cause various physical, psychological, and social distresses in the form of anxiety, emotional distress and decreased functional capacity and productivity, all of which lead to reduced quality of life (Çöçelli *et al.* 2008, Özveren & Uçar 2009, Elovsson & Boström 2011, Andrade *et al.* 2011). If pain is not relieved and controlled, these distresses aggravate over time with prolonged hospital stay, increased medical cost, and impaired quality of life (Furrow 2002, Messmer 2009, Andrade *et al.* 2011). Unsuccessful pain management, also regarded as professional negligence (Furrow 2002, Çöçelli *et al.* 2008), causes patients to suffer unnecessary pain which is a violation of the most basic human and patient rights (Johnston *et al.* 2007, Özveren & Uçar 2009). Therefore, providing pain relief and applying successful pain management is very important (Furrow 2002, Messmer 2009).

Pain is a common problem among hospitalized people. In the literature, it is reported that 55-71% of inpatients suffer pain within 24 hours (Gunnarsdottir & Gretarsdottir 2011), and that pain is the most important problem in 73% of these patients (Al-Shaer *et al.* 2011). Currently, although the importance of applying proper pain management in patient care and treatment is highlighted frequently and programs are initiated to increase the awareness of health workers in pain management and treatment, inpatients are still reported to suffer unnecessary pain due to improper pain management (Plaisance & Logan 2006, Messmer 2009, Gunnarsdottir & Gretarsdottir 2011, Hughes 2012). However, the foremost responsibility of both physicians and nurses in providing health care is to achieve a successful pain management via appropriate methods. Since nurses are the health workers that spend the highest amount of time with patients, they have a particular importance in successful pain management. These responsibilities, including pain assessment and using effective pain relief methods (Twycrosse 2002, Plaisance & Logan 2006, Gunnarsdottir & Gretarsdottir 2011, Zuccaro *et al.* 2012), are regarded as significant factors of successful pain management (Twycrosse 2002, Zuccaro *et al.* 2012.)

The role of these two factors in successful pain management is indispensable. Pain assessment provides the background for evaluating and understanding the pain characteristics, while assisting in choosing the proper method and evaluating its efficacy (Aslan- Eti & Badir 2005, Özveren & Uçar 2009, Chapman 2012).

Therefore, pain assessment is defined as a frequently applied procedure that can be used in pain control which is known to be effective in determination, application, and reassessment of personalized pain relief methods (Özveren & Uçar 2009, Chapman 2012). However, previous studies show that nurses do not perform pain assessment and use proper measures against pain (Payen *et al.* 2009, Rose *et al.* 2011, Rose *et al.* 2012). It is noted that this deficiency may be associated with the professional knowledge and education of nurses (Twycrosse 2002). There are a lot of studies in the literature investigating the knowledge and attitude of clinic nurses in pain management (Aslan-Eti & Badır 2005, Özer *et al.* 2006). Some of these studies indicate that nurses do not have adequate knowledge about pain (Aslan- Eti & Badır 2005, Özer *et al.* 2006), whereas some propose that they have (Efe *et al.* 2007, Al-Shaer *et al.* 2011). However, first it should be understood that having a deep knowledge about one subject does not guarantee that you will do it properly (Twycross 2002): In one study, although most of the nurses were observed to have a good level of knowledge about pain, they were found to act inadequately relative to pain assessment and pain coping strategies (Aslan- Eti & Badır 2005). Since it is a fact that even the smallest knowledge about pain will contribute to better pain management, current status in this regard should be revealed as clearly as possible (Brockopp *et al.* 2004).

On the other hand, today, the most common problem in chronic diseases is pain. Chronic diseases also present with other symptoms such as insomnia, loneliness, fatigue, anxiety, functional deficits, depression, and reduced life satisfaction. These problems may increase the pain level and the elevated pain may in turn increase the symptoms (Oware-Greyye 2008, Kaasalainen *et al.* 2010). Therefore, successful pain management is of importance in the care of chronic diseases, as well. Thus, nurses should step up and fulfill their responsibilities in pain assessment and pain management by planning and applying proper pain relief interventions as well as educating, protecting, and supporting patients in pain-related issues (Oware-Greyye 2008), while also trying to constantly improve their knowledge levels in this regard (Plaisance & Logan 2006, Akdemir *et al.* 2008, Özveren & Uçar 2009). Therefore, our investigation was designed as a descriptive study to determine the behaviors of nurses towards chronic disease patients suffering from pain.

II. Methods

Desing and Sample

The study sample consisted of 153 nurses caring for chronic disease patients and performing nursing intervention for pain in the clinics of Department of Internal Medicine at the Cumhuriyet University Research and Practice (CUAU) Hospital. To research of 153 nurses have voluntarily agreed to participate.

Data collection tools: The study data were collected by Personal Information Form (PIF) and Pain Management Methods Form (PMMF).

Personal Information Form (PIF): This form includes questions aiming at socio-demographic characteristics of the nurses such as age, educational status, marital status, years of professional experience, and manner of working.

Pain Management Methods Form (PMMF): This form was arranged based on the literature data and consisted of 12 questions targeting to determine the methods used by nurses in coping with pain and pain assessment (diagnosis, pain location, use of a pain scale, interventions against pain, etc.)

Procedure: First, the author applied a Personal Information Form to nurses providing care for patients with a chronic physical disease in the clinics of department of internal diseases. The nurses completed this form in 6-10 minutes, and subsequently they were delivered PMMF, which was completed in 10-15 minutes.

Ethical considerations: This study was approved by the institutional organisation. Potential participants were informed about the aim of the study and then asked whether they agreed to participate in the interview. Participants were told that they could withdraw from the interview whenever they wished and that all information would be kept strictly confidential.

Data Analysis: The study data were analyzed with SPSS (Version 10.0, SPSS Inc., Chicago, IL, USA) package program. Frequency and percentage values were used in the statistical analyses.

III. Results

Descriptive characteristics of the nurses participated in our study are shown in Table 1. In this study, among nurses with a mean age of 29.05±5.88 years, 60.1% were aged 24-30 years, 86.3% were 4-year university graduates, 66% were unmarried, 90.1% were clinical nurses, 77.7% were shift workers, and 46.4% had a professional experience of 1-5 years.

Table I. Descriptive characteristics of the nurses

Descriptive characteristics	Number(n=153)	%
Age (y) (X=29.05±5.88)		
<20	10	6.5
24-30	92	60.1
31-36	29	19.0

37-42	20	13.1
43-48	2	1.3
Education		
Health vocational school	10	6.5
Associate degree	3	2.0
Licence	132	86.3
Graduate	8	5.2
Marital status		
Married	52	34.0
Not married	101	66.0
Worked as the volume		
Nursing responsible for	6	3.9
Clinical nursing	138	90.1
Doctor	9	5.8
Operating mode		
Shift	119	77.8
Daytime	34	22.2
Period of professional experience		
less than one year	22	14.4
1-5 year	71	46.4
6-10 year	30	19.6
11-15 year	17	11.1
16-20 year	8	5.2
20-25 year	5	3.3

Regarding the clinical characteristics of the patients with pain (Table 2), 24.8% of the patients were cancer patients and 35.3% had head and neck pain.

Table II. Clinical characteristics of the patients with pain.

Clinical characteristics	Number(n=153)	%
The patient's diagnosis		
Chronic Renal Disease (CRB)	26	17
Diabetes mellitus (DM)	28	18.3
Cancer	38	24.8
Prostate	2	1.3
Gastrointestinal System bleeding	14	9.2
Kidney Disease	29	19.0
Blood disease	3	2
CRB ve DM	9	5.9
DM ve cancer	4	2.6
Aching body region		
Head and neck	54	35.3
Chest	12	7.8
Abdomen	48	31.3
Pelvis	4	2.6
Leg	7	4.6
Foot	7	4.6
Arm	4	2.6
Waist	4	2.6
Bone pain	4	2.6
Kidney pain	9	6.0

Table 3 shows the approaches of nurses towards patients with pain. In this study, 52.9% of the nurses reported not applying pain assessment, 47.1% reported using Visual Analogue Scale (VAS) in pain assessment, 5.9% of the nursing interventions for pain were found to be ineffective, 48.4% of the nurses reported using a pharmacological method, whereas 38.5% of the non-pharmacological methods were found to include touching, attention diversion (watching TV or listening music), and talking about the pain.

Table III: Approaches of nurses to patients with pain

Pain assessment status of nurses		
Assessing	72	47.1
Not assessing	81	52.9
Pain assessment method of nurses		
Visual analog skala (VAS)	72	47.1
Nursing interventions for pain		
No intervention	9	5.9

Pharmacological intervention	74	48.4
Non-pharmacological intervention	47	30.7
Combined use of pharmacological and non-pharmacological interventions	23	15.0
Non-pharmacological interventions (n=70)		
Talking about the patients' pain	26	37.1
Massage	3	4.2
Relaxation and rest	2	2.8
Attention diversion (towards TV or music)	6	8.5
Attention diversion + talking about the pain	6	8.5
Touching + attention diversion + talking about the pain	27	38.5

IV. Discussion

Pain is a global health problem experienced by all patients. However, it is difficult to assess pain because of its subjective nature. Therefore, the reason behind failure to achieve successful pain management in the current health system is believed to be the failure to apply effective procedures for assessment and management of pain (Dekker & Paulson 2005, Al-Shaer *et al.* 2011). It is a well known fact that pain assessment and application of effective pain relief interventions in the clinics have an important contribution in achieving positive results. Therefore, there is a continuous need for studies focusing on the assessment and management of pain within the health care system (Al-Shaer *et al.* 2011). Thus, health workers may have the chance to determine factors preventing successful pain management and develop their own solutions to achieve better pain control and relief (Dekker & Paulson 2005).

In this observational study wherein pain assessment status of nurses and nursing interventions for pain were investigated, most of the nurses were found to not use pain assessment. The first step of successful pain management is pain assessment. It is a must for adequate pain management. Therefore, lack of pain assessment is regarded as one of the principal causes of unsuccessful pain management (Xue *et al.* 2007, Çöçelli *et al.* 2008, Zuccaro *et al.* 2012). Accurate pain assessment has a direct influence on choosing the accurate pain relief method, as well (Aslan- Eti & Badır 2005). The importance of pain assessment becomes more clear when the patient-specific nature of pain perception, description, and reactions are considered. Therefore, it is noted that initial pain assessment applied before any intervention, provides valuable data that would be very useful in the future assessments (Dekker & Paulson 2005, Çöçelli *et al.* 2008). However, studies report that most of the nurses do not use pain assessment in clinical practice (de Rond *et al.* 2001, Payen *et al.* 2009, Ay & Alpar 2010). Rose *et al.* (2011) studied methods of assessment and management of pain in intensive care units and found that nurses did not apply pain assessment adequately and that health workers used pain assessment scales very rarely.

Ozer *et al.* (2006) evaluated the knowledge, behavior, and clinical decision-making skills of nurses, revealing that 74.5% of the nurses used no scale for pain assessment. Salentera *et al.* (1999) conducted a study to evaluate the pediatric pain assessment and pain relief methods of nurses working in the university hospitals in Finlandia and determined similar results. Another study noted that most of the nurses did not assess the pain using a pain scale (Rose *et al.* 2012). Our results are consistent with those of the aforementioned studies, showing that pain assessment is not adequately employed in clinical practice, which can be the foremost reason preventing achievement of successful pain management. Furthermore, this result may also be considered as a finding indicative of the fact that nurses do not have adequate knowledge and awareness levels for pain assessment.

In addition, since we found that 5.9% of the nurses did nothing for pain, this may be regarded as a finding supportive of this conclusion. Regarding the pain assessment scale used by the nurses, almost all the nurses were found to employ VAS. Using a pain scale bears importance because of the subjective nature of pain (Akdemir *et al.* 2008). VAS is reported to be the most commonly used pain assessment scale due to its reliability and easy-to-use characteristics (Akdemir *et al.* 2008, Bozimowski 2012, Kersten *et al.* 2012). One study showed that 36.9% of the nurses used VAS (Akdemir *et al.* 2008). These results suggest that nurses should deem pain assessment as a priority and that pain should be regularly assessed in clinical practice as the fifth vital sign. Furthermore, it can be regarded as a result indicating that nurses should be informed about the available pain scales and necessary in-service training programs should be developed.

In a study focusing on the pain assessment status of nurses (Oware-Greyye 2008), most of the nurses were observed to apply pain assessment. The difference between this study and our study relative to this finding may be associated with working on different patient groups. The aforementioned study evaluated patients hospitalized in the physical therapy and rehabilitation clinic. However, our study evaluated nurses mostly caring for cancer patients. Studies show that the decisions of care givers concerning the assessment and management of pain are influenced by their own attitude and false perceptions rather than the relatively objective results of the applied pain assessment (McMillan *et al.* 2000, Bacaksız *et al.* 2008). Although these studies have been done by similar methods, presence of different patient groups and varying attitude and perceptions of health workers

have led to differing results. In another study on cancer patients, only 5% of the nurses were observed to use non-pharmacological intervention (Eşer 2002). In one study, the nurses were found to apply pain assessment using a pain scale only in 28% of the patients receiving mechanical ventilation and they were observed to deliver analgesics without performing a pain assessment in 50% of the cases (Payen *et al.* 2009).

Pain management is a team work. The team should plan their approach to pain and apply it successfully (Xue *et al.* 2007). Nurses, the most valuable part of the team, are noted to be specialists in the practice of pharmacological and non-pharmacological intervention methods (Aslan- Eti 2005, Xue *et al.* 2007, Çöçelli *et al.* 2008). The most commonly preferred method for coping with pain was pharmacological method. All methods, both pharmacological and non-pharmacological, are important in pain management (Xue *et al.* 2007). However, using non-pharmacological methods or taking a combined approach in cases of mild pain, provides success and avoids unnecessary use of drugs. This approach raises the importance of non-pharmacological methods in coping with pain in clinical practice. However, studies show that nurses tend to use pharmacological methods more commonly (Briggs & Dean 1998, Kecialan 2001, Sahin *et al.* 2003, Ay & Alpar 2010.), are generally satisfied with drug therapy in pain control, and do not have a tendency to prefer non-pharmacological methods adequately (Karadeniz 1997, Eşer 2002).

In one study, 52.5% of the nurses were found to use pharmacological pain relief methods in clinical practice, rather than non-pharmacological methods (Özer *et al.* 2006). Payen *et al.* (2009) determined that 50% of the nurses applied pharmacological methods to cope with pain without doing a pain assessment. Since the principal responsibility of nurses in pain management is to keep the pain severity within endurable limits. Since pain is still the most common complaint of patients, it would be an overstatement to say that nurses fulfill their responsibilities to full extent in this regard.

Another result of our study was the fact that 30.7% of the nurses used non-pharmacological methods, among which touching, attention diversion, and talking about the pain were the most common methods. Beytut *et al.* (2009) evaluated pharmacological and non-pharmacological pain relief methods of nurses, observing that providing rest, pharmacological interventions, and helping the patient to assume the proper position, were the first choices of nurses, whereas attention diversion and ensuring that the patient follows the recommended exercise program were the second-line choices, and heat and cold therapy was the third-line choice. In a study investigating the approaches of nurses to pain and patients, 14.% were observed to position the patients, deliver heat and cold therapy, and apply massage, whereas only 6.4% were found to use attention diversion. Another study comparing the pain assessments of nurses and patients found that only 5% of the nurses used non-pharmacological methods (Eşer 2002). Our study demonstrated similar results with those of the previous studies, revealing that nurses do not use non-pharmacological methods as often as they should.

Although nurses do not have a responsibility in drug prescription, it is their first responsibility to apply non-pharmacological methods for pain relief. Some authors underscore education as the most important factor in fulfilling these responsibilities and associate the cases of unsuccessful pain management in clinical practice with inadequate education given by the nursing schools (Plasaince & Logan 2006, Gunnarsdottir & Gretarsdottir 2011, Rose *et al.* 2012). Having an adequate level of knowledge on pain bears great importance with regard to pain assessment and achievement of successful pain management (Alcenius 2004, Dekker & Paulson 2005, Zuccara *et al.* 2012). Accordingly, some studies highlight the inadequate knowledge levels of nurses on assessment and management of pain (Aslan- Eti & Badır 2005, Özer *et al.* 2006, Xue *et al.* 2007, Zuccara *et al.* 2012), and some note that knowledge and attitudes of nurses play a significant part in pain assessment and use of non-pharmacological methods (Patiraki *et al.* 2006, Johnston *et al.* 2007), while there are studies indicating that education has a positive impact on pain management (McNamara *et al.* 2012). Therefore, in order to raise the rate of successful pain management in clinical practice, nursing schools should review and update their curricula in terms of pain management, some class hours should be increased to give the students knowledge and skills required for effective pain control, and clinical classes should be revised to give practical skills to the students. Furthermore, from time to time, clinic nurses should assess their own knowledge, skills and attitudes on pain management by attending in-service training programs.

Nonetheless, 5.9% of the patients were observed to do nothing against pain. Further analytic studies with larger cohorts, focusing on pain management, which is one of the procedures that can be performed by nurses independently, should be conducted to obtain comprehensive data on factors involved in pain management provided by nurses and to develop solutions to achieve effective pain management.

V. Conclusion

In conclusion, improper pain management causes impaired quality of life, aggravated disease, increased complications, prolonged hospital stay, and elevated medical costs. Unsuccessful pain management, also regarded as professional negligence, causes patients to suffer unnecessary pain which is a violation of the most basic human and patient rights. Therefore, unsuccessful pain management, is also an important issue for the health care system. In this study, most of the nurses were observed to not apply pain assessment and use

pharmacological pain relief methods more commonly. Accordingly, we believe that if we want to provide better and successful pain management in clinical practice, pain should be regarded as the fifth vital sign and should be included in routine examination, in-service training programs should be arranged to increase the knowledge and sensitivity of nurses, institutional policies should be constituted for pain assessment and management, curricula in nursing schools should be revised with regard to pain, and further studies investigating the knowledge, skill, and attitudes of health workers should be performed.

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Tülay Kars Fertelli . "Approaches of Nurses to Chronic Disease Patients With Pain." *IOSR Journal of Nursing and Health Science (IOSR-JNHS)* , vol. 6, no. 5, 2017, pp. 47-53.