

## Auditing Palliative Care Provided by Nurses for Chronic Pain Management in the Elderly

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### Abstract

**Introduction:** Pain is the most common mental pressure in the elderly and its abstract nature makes it a challenging subject to study. Conformity of palliative care management was examined with standards.

**Methods:** Through a descriptive audit study, 210 elderly patients with chronic pain, who were candidates for palliative and curative care, were examined. A researcher-designed checklist of standard health care for pain management and McGill pain questionnaire were used for data gathering. Data analyses were performed using descriptive statistics and estimating conformity of the pain management measures with standards of SPSS (18).

**Results:** Checking records of painkillers (60%) and reporting the patient's pain to the physician (74.8%) were the most efficient palliative and curative measures, respectively. Surveying pain (41.9%) and introducing oneself to the patient (42.4%) were the least efficient healthcare services. In addition, palliative measures (24.73%) and drug-intervention measures (30.93%) had little conformity with the pain management standards.

**Conclusions:** Pain management care provided for the elderly has a long way to meet standards. This notable difference can be rooted in the abstract nature of pain and lack of knowledge of the medical team about palliative and curative measures for pain management.

## INTRODUCTION

In the wake of aging, people lose the ability to perform some of their physiological, mental, and social functions and this trend adds to the vulnerability of this group [1, 2]. Currently, more than 54% of the elderly population of the world lives in Asia. Iranian elderly consisted of 5.4% of the population in 1975 and the figure is forecasted to be 10.5% by 2025 and 21.7% by 2050 [3]. Elderly population growth calls for an increase of health care services for this age group as frequent disease and necessity of hospitalization could result in many challenges [4]. Pain is an unpleasant experience that usually occurs with damages to body tissue and it is chronic if it takes more than 3 weeks [5]. It is the most common and prevalent mental pressure that the elderly face and may cause depression and daily function disorders [6, 7]. It is highly prevalent in the elderly so that they perceive it as part of senescence and learn to live with it [8]. Prevalence of chronic pain in the adult population is about 20% and this figure is 67% in the Iranian elderly population [6]. Although, regardless of age, assessing pain is one of the main measures of pain manage-

ment, it is hard to assess, given its mental and self-reporting nature [8]. Pain assessment in the elderly is not straightforward, given the hearing, visual, and cognitive problems that this group encounters. In some cases, the mere recognition and management of chronic pain is not enough for health and treatment systems [8, 9]. Assessments should be followed by palliative measures such as educating the patient and improving their physical condition, quality of sleep and rest, self-confidence, and social activities to handle chronic pain management [10]. The nurses' performance regarding the use of non-drug palliative methods and educating non-drug interventions was not satisfactory. Using non-drug methods and physical measures such as massaging, compressing, vibrating, warming/cooling, transcutaneous electrical stimulation, acupuncture, exercising, and physiotherapy are some of the techniques to sooth pain [11]. Nurses play a key role in improvement of health condition of the elderly; therefore, they need to have a clear perception of pain experience and pain management methods. Manouchehri et al. argued that

nurses require adequate knowledge and awareness in the fields of pain management and its effects, assessment methods, and effectiveness of palliative methods [12]. Codification of health care standards, monitoring proper implementation, and evaluating quality of nursing services are essential. Audit is one of the ways to monitor and collect facts about a specific issue and measure its conformity with the standards. Moreover, results of the audit could be used to improve quality of the health care services [13]. Pain stops the individual from doing their daily activities, and also erodes others' capability to support the individual; this highlights the need for implementing pain management and preventive measures [14]. Therefore, given the evidence about the high prevalence of chronic pain in the elderly, short history of palliative care in Iran, and necessity of using pain management interventions in the elderly, auditing health cares provided by nurses in the field of pain management and palliative measures for the elderly is of great importance. Therefore, the present study aimed at measuring conformity of palliative health care and chronic pain management for the elderly with available standards and guidelines.

## METHODS

A descriptive study was carried at 3 randomly selected hospitals affiliated to Shahid Beheshti Medical Science University, during year 2015. The study population comprised of all palliative care nurses pertinent to chronic pain management provided to the elderly. The sample group ( $n = 210$ ) was selected based on  $P = 0.5$ ,  $d = 0.07$ ,  $\alpha = 0.05$ , 10% probable leave [15], and the formula. The subjects were selected through event sampling; this sampling method relies on the researcher's knowledge about the specific conditions of the situation, and the researcher should be present at the place [16]. Internal wards of the hospitals were used as the study environment. Inclusion criteria included having chronic pain and being older than 60 years old. The patients diagnosed with cognitive and depression disorders were removed from the study (based on briefed cognitive condition assessment tool). A checklist and McGill pain management were used for data gathering. The checklist was designed by the research group and based on the information found in reliable Iranian and foreign information databases (e.g. SID, PubMed, Science Direct, and Google Scholars) after year 2000. It consisted of 2 sections of palliative care (14 statements) and curative care (16 statements). Health care that was implemented completely was scored 2, partially implemented health care was scored 1, and non-implemented health care was scored 0. To examine chronic pain, McGill pain questionnaire was used. The questionnaire comprised of 78 descriptive words in 3 aspects of emotions, cognitive-assessment, and miscellaneous with a 5-point scoring system to measure severity of pain. Validity and reliability of the questionnaire were supported by Khosravi et al. [14]. To examine validity of the checklist, qualitative content analysis (validity index = 96%) and to examine reliability, agreement between the observers were used as a measure. To this end, the checklists were provided to a second observer, who was identical to the first observer in terms of accuracy, skills, and knowledge. The 2 observers filled in the checklists for 10 elderly patients simultaneously and, then, intra-class correlation coefficient of the scores for both observers was computed ( $ICC = 0.94$ ). To respect ethi-

cal concerns, names of the hospitals were not mentioned and the officials of the hospitals were ensured about the confidentiality of the information. With permission from the university, the researcher referred to the hospitals to secure the required permissions. Afterward, the researcher referred to the hospital 3 times a day (3 work shifts) to fill out the checklists. The participants received comprehensive information about the study, including the objectives, methodology, nature of the study, and deadline to answer the questions. They were also told that they could leave the study at any stage. According to ethical concerns, the participants were asked also to express orally their consent to participate in the study. The collected data about status of palliative care was analyzed using the SPSS (v18) software, so that, the score of each form was calculated at first and then it was expressed as a percentage. The scores were interpreted at 3 levels of weak (0 to 30), moderate (34 to 67), and good (68 to 100) with level of confidence of 95%. Descriptive statistics were used to represent the data (definite and relative frequency and percentage) and the results were represented as frequency distribution.

## RESULTS

The participants included 111 males (52.9%) and 99 females (47.1%) with an average age of  $68.2 \pm 7.4$  and age range of 60 to 85 years. The majority of the participants (57.6%) were at the age range of 60 to 65 and 56.6% were illiterate. The demographics of the participating nurses are listed in Table 1.

**Table 1:** Demographics of the Participating Nurses

Variable	Frequency	Percentage (Level of confidence of 95%)
<b>Gender</b>		
M	30	46.1
F	35	53.9
<b>Age</b>		
21-30	38	58.4
31-40	20	30.7
> 40	7	10.7
<b>Education</b>		
BSc	57	87.6
MSc	8	12.3
<b>Employment</b>		
Covenant	18	27.6
Contractual	2	30.7
Temporary	11	16.9
Life-time	16	24.6
<b>Overtime work</b>		
50 >	35	53.8
> 50	30	46.1
<b>Work experience</b>		
5 >	42	64.6
6-10	12	18.4
10 >	11	16.9

**Table 2:** Frequency Distribution of Implementation of Palliative and Curative Care Standards for the Elderly

Status	N	Percentage (Level of Confidence of 95%)	Score	Rating
<b>Palliative</b>			29.7	Poor (0-33)
Fully performed	727	24.4		
Not fully performed	296	10		
Not performed	1917	65.3		
<b>Total</b>	2940	100		
<b>Curative</b>			37.5	Moderate (34-66)
Fully performed	1042	31		
Not fully performed	446	132		
Not performed	1881	55.8		
<b>Total</b>	3369	100		

**Table 3:** Palliative and Curative Medicine (Pain Assessment) Cares Conformity with Chronic Pain Management of the Elderly

Cares	Performed		Not- performed	Standard (X)	Current Status (Y)	Conformity (Y/X)
	Completely	Incompletely				
	N	N	N			
<b>Palliative</b>	727	296	1918	210 * 14 = 2940	727	24/73
<b>Medicine</b>	1042	446	1881	210 * 16 = 3369	1042	30/93

As to the palliative care, the findings showed that the main activities performed completely (60%) and incompletely (41.9%) were using sedatives and examining/recording the term of pain, respectively. The main activity as to pain management in pain assessment field was to examine activities at the time that the pain starts (91.4%). The main activity that was not performed for pain management in pain assessment field was asking about physical activities of the elderly at the time of the pain (91.4%). In addition, examining the record of taken sedatives (60%) was the best palliative care performed by the nurses. Regarding pain management health care, the main activities performed completely (74.8%) and incompletely (42.4%) were reporting patient's pain to the physician and introducing oneself to the patient, respectively. The patient's participation in making decision about reducing and controlling pain was the main activity that was not performed (92.4%). In general, fast response to the patient's request for palliative care (75.4 points), reporting patient's pain to the physician (78.8 points), consulting the physician to increase dosage of the analgesic (74.2 points), and reminding the patients of the necessity of taking the painkillers (74.5 points) were the most satisfactory pain management measures by the nurses. Based on comparing the provided health cares with the pain management checklist, general status of palliative care and curative care were poor (29.7%) and moderate (37.5%), with little consistency with pain management standards.

**DISCUSSION**

The findings showed that palliative and curative medicine measures had little conformity with pain management standards. This is consistent with the study of Niroban et al. (2010), which reported that pain management for the elderly was not satisfactory [17]. Examining and recording quality of pain, frequency of pain, pain record, and asking about changes in

pain severity in different occasions were the tasks that were performed poorly or not performed. McLish et al. (2009) maintained that pain management services for the elderly in intensive care wards were not satisfactory [18]. Effective pain control facilitates recovery of the patients and reduces the term of hospitalization. Pain assessment is the key element of a successful pain management and pain must be treated as the fifth vital sign. Pain measurement during rest time or physical activities can be measured using special tools, such as visual or scoring tools [19]. As for palliative cares, pain assessment, surveying severity of pain by a pain scale, and examining record of taking painkiller had a good condition; so that they were routinely performed by the nurses. On the other hand, the main incompletely performed activity (41.9%) in palliative pain management field was examining and recording the time period of pain. Pain severity assessment and recording quality and frequency of pain, and frequently asking the patients about pain were of great importance. Nurses played a key role in examining and surveying pain. By collecting, recording, and assessing data about pain, they would be able to take palliative measures to control pain. Moghadas argued that asking the patient to score their pain conveys the idea to the patients that their pain is under continuous control [20]. Findings of the present study indicated poor performance of the nurses in pain assessment. One reason for this is the subjective nature of pain, which makes it difficult for the medical team to achieve a reliable palliative intervention. The fact that pain is a personal experience and this experience is a function of the individual's interpretation, makes it hard to survey specifications of pain. Findings of other studies showed that 85% of the patients were not examined by the nurses regarding pain [19]. Yamashita reported that 76% of the sampled individuals had used supplementary medicine in the past year, including non-drug interventions, such as using vitamins, herbs, massage therapy, acupuncture, and aromatherapy [20]. The main curative activity that was fully performed was reporting the

patient's pain to the physician (74.8%); and the main curative activities that was not performed completely or not performed at all were introducing oneself to the patient (42.4%) and providing the opportunity for the patient to participate in decision making for soothing the pain (92.4%), respectively. The nurses even had poor performance regarding explaining the pain and its nature to the patient or even providing the opportunity for the patient to participate in making a decision about pain control. Rozhe et al. described the patients' attitudes about pain management in a qualitative study. Their findings showed that the nurses and the patients communicated through the patient attendants so that pain management process was a one-way process and the patient was not given enough information about pain management. In other words, the patient had no role in decision-making about palliative measures and their independence was neglected [21]. In general and as to interventional palliative cares, 4 activities of immediate response to the patient's request for soothing the pain, reporting the patient's pain to the physician, consulting the physician about increasing/decreasing painkiller dosage, and reminding the patient of the necessity of painkillers were the measures performed properly. Availability and access to the nurses to deal with the patients' request for painkiller creates a mental security for the patient. Brennan et al. conducted a study in the UK and showed that drug-interventions for soothing pain were performed with delay. Average times of prescribing a painkiller for severe and moderate pain were 72 and 226 minutes, respectively [22]. However, the guideline about access to painkillers in the case of severe pain was less than 20 minutes [23]. The World Health Organization (WHO) holds that receiving pain management interventions is the right of all patients regardless of their religion, race, age, and socio-economic class [12]. Inconsistency of the results regarding the fast reaction to the patient's pain might be rooted in special management style of Iranian hospitals and gravity of the patient's human dignity from the nurses' viewpoint.

Palliative and curative care for chronic pain management in hospitalized elderly had little conformity with the standards. Shohrati et al. (2011) conducted a cross sectional study on patients, who underwent an abdominal surgery and examined conformity of palliative care and the protocols. They showed that using painkillers was consistent with the protocols in 13% of the cases and there was no consistency in 87% of the cases [24]. On the other hand, the subjective nature of pain management could lead to disconformity between the nurse and the patient's perception of pain and influence palliative care management. Audit standards in the UK indicate that any hospitalized patient should be questioned about the level of pain they feel, and if needed, severity, spot, and palliative measures should be recorded in the patient's file. Audit of pain management measures for the elderly in the UK showed that severity of pain and pain management measures were recorded only in 11% and 38% of the cases, respectively, which indicated a notable disconformity with the standards [17]. One of the main limitations of the study was unavailability of similar works for comparing the results. Since only conformity of palliative and curative measures with pain management standards was explained here, future studies could focus on the causes of disconformities between pain management measures and the standards.

There was a great difference between pain management care

provided by the nurses and the standards. Abstract and subjective nature of pain and lack of knowledge of nurses explains this finding. Routine educations for the health personnel and improving nurses' knowledge and awareness could close the gap.

## ETHICAL CONSIDERATION

Participants were explained about the purpose of the study and informed consent was taken from them. Research approval was granted by the deputy of research of Shahid Beheshti University of Medical Sciences (Project number: 7037). Ethical approval was obtained from the Committee of Ethics in Research of the university (ethical code: sbmu.rec.1394.202 on 28 February 2015).

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## CONFLICTS OF INTEREST

No potential conflict of interest was reported by the authors.

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## AUTHOR CONTRIBUTIONS

The authors all made equal contributions to this paper.

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