

Assessment of pain as the fifth vital sign: opinion of nurses**Avaliação da dor como quinto sinal vital: opinião de profissionais de enfermagem**Evaluación del dolor como la quinta señal vital: opinión de profesionales de enfermería***Leonel Alves do Nascimento¹, Maria Clara Giorio Dutra Kreling¹****ABSTRACT**

Objective: To analyze the implementation of the assessment of pain as the fifth vital sign in a teaching hospital. **Methods:** Quantitative research using semi-structured questionnaire applied to 188 technicians and nursing assistants working in five inpatient units of a large teaching hospital located in municipality of Londrina-PR. **Results:** About 79.0% of professionals reported assessing pain as a sign of life; patient welfare was the most mentioned reason. The lack of understanding of the patient about the pain intensity scale was the main difficulty (77.6%). For 64% of professionals, the hospital encourages the assessment of pain and as a suggestion, 49% of professionals reported the need for courses and training. **Conclusion:** The inclusion of pain as the fifth vital sign was accepted by the nurses. It highlights the need for nursing work in the supervision and training, and the readjustment of the pain measurement scale.

Keywords: Pain measurement; Nursing, Team; Pain

RESUMO

Objetivo: Analisar a implantação da avaliação da dor como quinto sinal vital em um hospital escola. **Métodos:** Pesquisa quantitativa, utilizando questionário semi-estruturado aplicado a 188 técnicos e auxiliares de enfermagem que trabalhavam em cinco unidades de internação de um hospital-escola de grande porte localizado no Município de Londrina - PR. **Resultados:** Cerca de 79,0% dos profissionais relataram avaliar a dor como sinal vital, sendo o bem-estar do paciente o motivo mais citado. A falta de compreensão do paciente com a escala de intensidade da dor foi a principal dificuldade apresentada (77,6%). Para 64% dos profissionais, o hospital incentiva a avaliação da dor e como sugestão, 49% dos profissionais relataram a necessidade de cursos e treinamentos. **Conclusão:** A inclusão da dor como quinto sinal vital foi aceita pelos profissionais de enfermagem. Ressalta-se a necessidade da atuação do enfermeiro na supervisão e treinamento, além da readequação da escala de mensuração da dor.

Descritores: Medição da dor; Equipe de enfermagem; Dor

RESUMEN

Objetivo: Analizar la implantación de la evaluación del dolor como la quinta señal vital en un hospital escuela. **Métodos:** Investigación cuantitativa, utilizando cuestionario semi-estructurado aplicado en 188 técnicos y auxiliares de enfermería que trabajaban en cinco unidades de internación de un hospital-escuela de gran porte localizado en el Municipio de Londrina - PR. **Resultados:** Cerca de 79,0% de los profesionales relataron evaluar el dolor como señal vital, siendo el bienestar del paciente el motivo más citado. La falta de comprensión del paciente con la escala de intensidad del dolor fue la principal dificultad encontrada (77,6%). Para 64% de los profesionales, el hospital incentiva la evaluación del dolor y como sugerencia, 49% de los profesionales relataron la necesidad de realizar cursos y entrenamientos. **Conclusión:** La inclusión del dolor como la quinta señal vital fue aceptada por los profesionales de enfermería. Se destaca la necesidad de la actuación del enfermero en la supervisión y entrenamiento, además de la readequación de la escala de mensuración del dolor.

Descriptores: Dimensión del dolor; Grupo de enfermería; Dolor

* Study conducted in a university hospital in Northern Paraná state, Brazil, extracted from the senior research project of the undergraduate nursing course of the "Universidade Estadual de Londrina", UEL – Londrina (PR), Brazil.

¹ Undergraduate nursing course of the "Universidade Estadual de Londrina" - UEL – Londrina (PR), Brazil.

INTRODUCTION

Pain is defined as an unpleasant sensorial and emotional experience, associated with real or potential harm of tissues, or described in terms of such harm⁽¹⁻²⁾.

There is no an exclusive relationship between pain and tissue injury, and the sensitive, emotional and cultural aspects cause perception to be a subjective and personal experience. Knowledge about these concepts is key to understand pain and to define the domains it is comprised of, the methods that will be used to assess it and the strategies to guarantee its control⁽³⁾.

Authors report that pain is the main reason for hospitalizations. In fact, people associate illness with pain and include the existence of pain as a sign that something is wrong, ignoring the fact that many diseases do not have pain as a symptom⁽⁴⁾.

Culture is a distinguishing factor between individual actions, guiding their beliefs, acts, perceptions and emotions, in addition to having a powerful effect on tolerance to pain or not. This is observed when one individual cannot bear a certain stimulus, while another can tolerate it⁽⁵⁾.

Moreover, the cultural question plays an important role in the actions of health professionals, having a direct effect on pain management. Some professionals, based on their own experiences, assess pain in a superficial way and do not give this event the due importance⁽³⁾.

Based on the multiplicity and different ways of perception and appreciation that change from person to person, it is essential that professionals pay attention to this phenomenon for better assessment and comprehensive care⁽⁵⁾.

The study of pain and analgesia in nursing educational institutions occurs in an irregular and limited way. Thus, graduated professionals do not use this knowledge in their daily practice. Despite these limitations, the implementation of a pain management program is extremely valuable, improving health care and the qualification of future professionals, in addition to dealing with patients in a more humanized way^(1-2,4).

The American Agency of Investigation and Quality in Public Health and the American Pain Society describe pain as the fifth vital sign, which must be assessed and recorded with other signs: temperature, pulse, breathing and arterial pressure. As a result of this emphasis, health institutions have currently introduced pain assessment as the fifth vital sign^(4,6-8).

Several methods have been used to measure pain sensation. Certain instruments assess pain as a simple, unique and unidimensional quality that only varies in intensity. In contrast, multidimensional instruments consider it to be a complex experience, due to affective, emotional and sensitive factors as well⁽⁹⁾.

Pain assessment must be part of the nursing team activities, as they spend more time with patients, in addition to guaranteeing humanized care as a right of these patients.

When prescribing pain assessment, records enable other health team professionals in the three work shifts to evaluate and thus establish the best type of therapeutic care for the patient. These records must include the place of painful event, the intensity, type, duration, improving and worsening factors, and the administration of analgesics or not⁽²⁾.

Considering the above mentioned aspects, pain assessment was implemented as the fifth vital sign in the university hospital where this study was conducted. For such implementation, it was necessary to make the nursing prescription adequate to guarantee some space for professionals to note down the intensity of pain. In addition, a series of events and qualification courses were held, aiming to qualify nurses, nursing technicians and assistants to assess pain. As all project implementations, there was the need for a study that analyzed the implementation of pain assessment as the fifth vital sign, with a focus on nursing technicians and assistants.

It should be emphasized that this study will provide resources to future strategies to improve the establishment of pain as the fifth vital sign and, consequently, minimize the suffering of patients.

In view of the above mentioned considerations, the present study aimed: to analyze the implementation of pain assessment as the fifth vital sign in a university hospital; to describe the opinion of nursing technicians and assistants about the importance of assessing pain and recording this; to identify the difficulties in assessing pain; and to report professionals' suggestions to establish pain assessment as the fifth vital sign.

METHODS

A cross-sectional study with a quantitative approach was conducted in a large university hospital, situated in Northern Paraná state, Brazil. This institution includes 333 beds, all available to the *Sistema Único de Saúde* (SUS – Unified Health System), performing 1,500 monthly hospitalizations on average, in addition to 12,000 outpatient visits, 2,700 emergency visits and 650 surgeries. The institution's staff is comprised of approximately 310 professors with direct activity, 1,718 technical-managerial professionals, residents of several specialties and undergraduate students.

Nursing prescription was changed to establish pain assessment as the fifth vital sign, creating some space for this to be noted down. Moreover, qualification courses were held with professionals of several hospitalization units and from different work shifts. A total of 11 courses were held with 259 nurses, professors, residents, and

nursing technicians and assistants. Each professional was instructed on how to observe the characteristics and intensity of pain and record this in the nursing prescription. To achieve this, all of them received a numerical scale from zero to ten to measure the intensity of pain. To use this scale, the patient indicates the intensity of their pain, being informed that zero means absence of pain and ten, the worst pain imaginable.

A structured instrument was developed to collect data, comprised of open-ended and closed-ended questions, divided into two distinct parts. The first one came from the instrument and aimed to characterize the professional and the unit where they work. The second part refers to the information about the importance professionals gave to pain assessment, the main difficulties and the suggestions made for better adherence to pain assessment.

Interviews were conducted by volunteers, students of the undergraduate nursing course who were performing extra-curricular training in the Education and Training Sector of this hospital. Students were previously qualified to perform interviews.

The hospitalization units of this study were comprised of 221 professionals. As a result, the following exclusion criteria were adopted: to have two functions in the institution; to have participated in the pilot study, not to have direct contact with the patient; to be on vacation or on a leave during the research period, and to be transferred to another unit where the study was not conducted. Thus, the study population was comprised of 188 professionals, and one professional refused to participate. Researchers chose to study the opinion of nursing technicians and assistants, because they are the ones who observe the vital signs, while the research with the nurses will be performed in the next stage. The hospitalization units were as follows: Emergency Unit with 53 interviewed professionals; Clinical and Surgical Units: Female Unit with 37 and Male Unit with 46; Infectious Diseases Unit with 20; and Burn Care Center with 32.

A database was developed to analyze data, using the Epi Info, version 3.5.1, where the instrument was typed, and open-ended questions were codified to enable quantitative analysis and checked, through double-entry, thus excluding the possibility of typing errors. After tabulation and data analysis, these were shown in tables and graphs.

The present study was approved by the institution's Research Ethics Committee (Official Opinion 018/08) and all participating professionals had to sign an Informed Consent Form.

RESULTS

Of all 188 professionals interviewed, 142 (75.5%)

were females. With regard to the work category, 122 (65%) were nursing assistants and 35%, nursing technicians. Age varied between 24 and 73 years.

Aiming to provide information that helps the analysis of results of this study, the identification of the number of professionals who reported adopting pain assessment as the fifth vital sign was considered important.

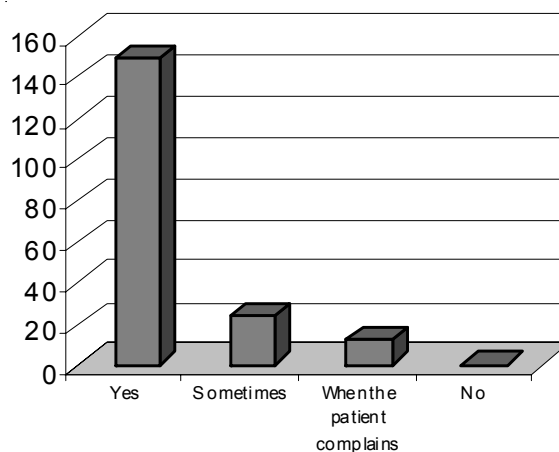


Figure 1. Nursing professionals, according to pain assessment as the fifth vital sign. Londrina, PR, Brazil, 2008.

In terms of pain assessment as the fifth vital sign (Figure 1), of all 188 professionals interviewed, 149 (79.3%) reported that they assessed pain with the other vital signs, 24 (12.8%) sometimes assessed it, and 13 (6.9%) only did so when the patient complained of pain.

Table 1. Reasons for the importance of pain assessment as the fifth vital sign, reported by nursing professionals. Londrina, PR, Brazil, 2008.

Reasons for pain assessment	n	%
Patient's well-being	44	21.1
Patient should not feel pain in the hospital	39	18.7
Works as a parameter of the patient's progress	29	14.0
Stimulates the patient to report pain	26	12.5
Serves to measure pain	21	10.1
Pain changes the other vital signs	12	5.8
Helps to select medication	12	5.8
Helps with the diagnosis	11	5.3
Values the patient's complaint	9	4.3
Serves for the patient not to bother	2	1.0
It is not important to assess pain	2	1.0
Because this is required by management	1	0.5
Total	208	100

With regard to the reasons to assess pain (Table 1), 208 reasons were reported by participants, with the following standing out: the patient's well-being (21.1%) and the fact that the patient should not feel pain in the

hospital (18.7%).

Table 2. Difficulties reported by nursing professionals to assess pain as the fifth vital sign. Londrina, PR, Brazil, 2008.

Difficulties	n	%
Patient's difficulties in understanding	90	77.6
Lack of time	18	15.5
Patient overestimates pain	3	2.6
Pain is not considered as a vital sign	2	1.7
Forgetfulness	1	0.7
Patient out of bed	1	0.7
Pain cannot be measured	1	0.7
Total	116	100

With regard to the difficulties in pain assessment, 60.3% of professionals reported having one or more difficulties to assess pain. According to data shown in Table 2, the most frequently mentioned difficulties were the patients' lack of understanding of the scale of intensity (77.6%) and lack of time to assess pain (15.5%).

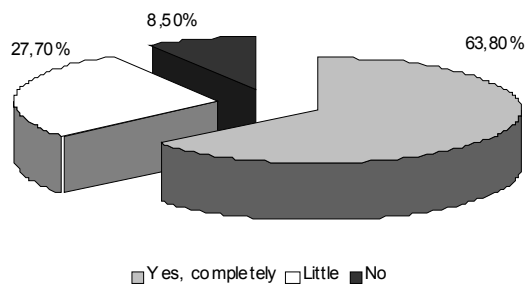


Figure 2. Reports of the hospital's encouragement to assess pain as the fifth vital sign. Londrina, PR, Brazil, 2008.

When asked whether the hospital encouraged pain assessment (Figure 2), 120 professionals (63.8%) responded "yes, the hospital fully encouraged pain assessment as the fifth vital sign; for 27.7%, "the hospital only encouraged its implementation and now it encourages little". In contrast, 8.5% reported that they had not received any incentive from the hospital to assess pain in their units.

Another question raised was about the type of scale used to assess the intensity of pain, when 9.6% of professionals reported that they used a numerical scale; 8% sometimes used a numerical scale and, at other times, a scale of verbal descriptors (mild, moderate and intense pain); and 82.4% adopted this type of scale.

Professionals were asked about what the hospital needs to do for all professionals to assess pain as the fifth vital sign (Table 3). A total of 198 suggestions were obtained, where the most frequent one was "courses and training should be performed" (49%), followed by

"nurses should be required to do more" (22%), and "professionals should have the initiative to assess pain" (20%).

Table 3. Suggestions of nursing professionals to implement pain assessment as the fifth vital sign. Londrina, PR, Brazil, 2008.

Suggestions	n	%
Courses and training for professionals	97	49
Nurses should be required to do more	43	22
None, professionals should become aware by themselves	39	20
Reduction in work load	09	4
Qualification courses for doctors	09	4
Inclusion of pain in the nursing prescription	01	1
Total	198	100

DISCUSSION

Studies show the importance of pain assessment with the other vital signs and that the culture of professionals directly affects their assessment of pain^(1-2,5-6,8,10-11).

According to the research results, it was observed that the implementation of pain assessment as the fifth vital sign was accepted by the majority of professionals, because 79.3% reported that they performed this action.

The main reasons given by professionals for the importance of pain assessment were as follows: the patient's well-being (21.1%); the fact that the patient should not feel pain in the hospital, if not strictly necessary (18.7%); that it serves as a parameter of the patient's progress (14%); that the patient can feel pain and not report it, because of their culture or fear of "bothering" professionals, thus making it important to ask them about the presence of pain (12.5%); and the importance of measuring pain (10.1%). There is a question which is not only clinical, but also ethical, involving health professionals, because alleviating pain is a basic human right⁽¹²⁾.

It was observed that 77.6% of the difficulties shown result from the patients' lack of understanding to express pain, according to its intensity in a numerical scale from zero to ten. One of the reasons that could be mentioned is that patients with an advanced age and a very low or inexistent level of education find it difficult to understand the scale, resulting in the numerical scale's inefficiency as a pain assessment instrument.

Certain elderly individuals, especially those who have dementia, may have difficulties in indicating pain in a numerical scale. It is important to emphasize that other scales, such as those with a pain thermometer or faces, can be successfully used to assess pain in the elderly. Other studies report the easiness of application and understanding of the numerical scale by patients, in

addition to the speed at which it measures pain^(6,13).

The main obstacles to assess pain are the fact that the patient is in pain and, for this reason, their attention is affected. A mental state affected by anxiety, confusion and physical state can also change pain assessment, such as patients with impaired hearing. Professionals' lack of time, the language that they use to ask about pain, which is usually technical and difficult to understand, and lack of knowledge about pain assessment techniques are also limiting factors to assess pain⁽⁹⁾.

Another important factor was that 82.4% of professionals did not use the numerical scale to assess pain, but rather verbal descriptors, such as mild, moderate and intense. The recording of the intensity of pain is performed according to the professional's interpretation, rather than the patient's report. The literature and qualification courses held in the institution being studied use the numerical scale, teaching the patient to express their pain and measure it, according to the values of this scale⁽⁶⁾.

Lack of time was the second difficulty reported, totaling 15.5% of the difficulties, and 44% of professionals who reported such difficulty worked in the emergency room, where there is a great flow of patients and different tasks to be performed by professionals of this sector.

For 63.8% of professionals (Figure 2), the hospital fully encourages pain assessment. Questioned about what is necessary for the hospital to do, so that all professionals assess pain, 21.7% of professionals mentioned that the unit nurses should be required to do more. This shows the need for a continuous follow-up and systematic observation by nurses, which was reported by 19.2%

of participants. The need to supervise these professionals when implementing any new practice is well known, and, with the pain assessment as the fifth vital sign, this need becomes more evident, considering the subjectivity of pain and the importance of valuing the complaint of pain.

Other studies may be necessary, aiming to identify actions performed by nurses to control pain, once the present study described the actions of nursing assistants and technicians.

CONCLUSION

It could be concluded that nursing technicians and assistants of the university hospital selected consider the inclusion of pain assessment as the fifth vital sign to be important, although certain difficulties to implement this new practice were reported by them. The main limitations mentioned are associated with patients' lack of understanding to measure pain using the pain intensity scale and professionals' lack of time to assess pain.

Implementation of pain assessment as the fifth vital sign requires persistence, encouragement and follow-up from the team, like any new practice. The importance of hospitalization unit nurses' active participation in this implementation, with supervision and guidance of professionals, should be emphasized.

Valuing the patient's complaint of pain was considered to be very relevant in humanized care, and this should be included among the vital signs, in all health institutions, aiming to reduce suffering which is usually controllable, in addition to guaranteeing a right of the patients.

REFERENCES

1. Calil AM, Pimenta CAM. Conceitos de enfermeiros e médicos de um serviço de emergência sobre dor e analgesia no trauma. *Rev Esc Enferm USP*. 2005;39(3):325-32.
2. Calil AM, Pimenta CAM. Intensidade da dor e adequação de analgesia. *Rev Latinoam Enferm*. 2005;13(5):692-9.
3. Garcia DM. Crenças de profissionais de Centros de Dor sobre dor crônica [dissertação]. São Paulo: Escola de Enfermagem da Universidade de São Paulo; 2006.
4. Sereza TW, Dellaroza MSG. O que está sendo aprendido a respeito da dor na UEL? *Semina Cienc Biol Saúde*. 2003;24(1):55-66.
5. Budó MLD, Nicolini D, Resta DG, Büttendbender E, Pippi MC, Ressel LB. A Cultura permeando os sentimentos e as reações frente à dor. *Rev Esc Enferm USP*. 2007;41(1):36-43.
6. Rigotti MA, Ferreira AM. Intervenções de enfermagem ao paciente com dor. *Arq Ciênc Saúde*. 2005;12(1):50-4.
7. Silva YB, Pimenta CAM. Análise dos registros de enfermagem sobre dor e analgesia em doentes hospitalizados. *Rev Esc Enferm USP*. 2003;37(2):109-18.
8. Sousa FAEF. Dor: o quinto sinal vital. *Rev Latinoam Enferm*. 2002;10(3):446-7.
9. Kazanowski MK, Laccetti MS. *Dor: fundamentos, abordagem clínica, tratamento*. Rio de Janeiro: Guanabara Koogan; 2005.
10. Menossi MJ. A complexidade da dor da criança e do adolescente com câncer hospitalizados e as múltiplas dimensões do seu cuidar [dissertação]. Ribeirão Preto: Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo; 2004.
11. Pereira LV, Sousa FAEF. Mensuração e avaliação da dor pós-operatória: uma breve revisão. *Rev Latinoam Enferm*. 1998;6(3):77-84.
12. Gomes RT, Silva JF, Pedras RBN, Melo JR. Dor: o quinto sinal vital. *Prática Hospitalar*. (Internet) 2006; 8(44). [citado 2010 Out 23]. Disponível em: <http://www.praticahospitalar.com.br/pratica%2044/pgs/materia%2018-44.html>
13. Sousa L, Pitangui ACR, Gomes FA, Nakano AMS, Ferreira CHJ. Measurement and characteristics of post-cesarean section pain and the relationship to limitation of physical activities. *Acta Paul Enferm*. 2009;22(6):741-7.