

Nursing in the Attention of the Evaluation of Pain as a 5th Vital Sign

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Abstract

Objective: The objective of this study was to identify the view of nurses in the application of the pain scale in patients hospitalized in intensive care and medical clinic.

Method: An exploratory-descriptive study was conducted with a qualitative approach in a private hospital in the interior of the State of Sao Paulo. The sample consisted of 20 nurses who answered 2 identical questionnaires, one demographic member with thirteen questions and the other with a dissertative question regarding the research objective.

Results: Twenty nurses were interviewed, where 10 (50%) applied the scale at the time of patient admission, 4 (20%) applied the numerical scale more easily, while another 4 (20%) reported that they did not apply any pain scale. Among these, 20 (100%) consider the scale useful, 17 (85%) do not find difficulties in the application and 14 (70%) do not apply the scale in sedated patients. All of them recognized the importance of the scale and know pain as the 5th vital sign and it was clear that with the application of the scale it is possible to offer more comfort, evaluating the effectiveness of the medication and aiding in the clinical reasoning.

Conclusion: All nurses consider it useful to use the pain scale, but lack of an institutional protocol often fails to apply the scale at important moments of patient admission.

Keywords: Nursing assessment; Attention; Pain measurement; Vital signs

Introduction

According to the International Association for the Study of Pain (IASP), pain is defined as an experience that can cause emotional and physical damage and may be acute, chronic or recurrent [1]. Since 2000, the Joint Commission: Accreditation on Healthcare Organizations (JCAHO) has decreed that pain is an indicator of quality of care and is considered as the fifth vital sign and must be measured along with existing vital signs: Temperature, pulse, respiration, saturation and blood pressure. The complaint of pain must always be valued and respected, for each one feels and manifests pain in a certain way [2].

In order for the evaluation to be performed automatically, the nurse must explore the pain complaints, collect information regarding the personal and family history, and have the wisdom to use instruments to assist in the measurement and evaluation of pain. Promoting pain improvement requires creativity, skill and especially knowledge. Each mode of evaluation provides qualitative and quantitative information. Being that the qualitative one has the intention to raise data on the motivation of a group and the quantitative one prioritizes the numerical indication, frequency and intensity of the behavior of the individual in relation to the pain. Because it is a subjective experience, pain cannot be measured by physical instruments that usually measure weight, temperature, height, blood pressure, and pulse. There is no

instrument that allows the nurse to measure this complex and personal experience, but some scales are available that allow evaluation, complementing the process of semiologic analysis of the nurse related to this experience [3].

The instrument for the assessment of pain can be of two forms: One-dimensional or multi-dimensional. The most used are those of one-dimensional forms which are the numerical scales conceptualized from zero to ten, where zero is the absence of pain and ten is the extreme pain and also the analogue scale, which consists of a horizontal line where the upper end is the pain and lower end is the absence of pain. The multidimensional forms are the least used because they are more complex, they are used in specific moments, the same evaluates as a way of scale three dimensions of pain: the sensorial discriminative, the affective motivational and the cognitive evaluative [4].

It is important to know that pain should be evaluated in a clinical setting so that treatment can be adequately understood or even managed. The efficacy of the treatment and its segment depends very much on the quality of the evaluation and measurement of pain, taking into account also the type of instrument used [5]. In order for this to happen, it is necessary for the professional to have the knowledge to differentiate the type of instrument used for pain assessment according to the age and situation of each client, for this and other reasons, we focus the identification of the training that the nursing team has to conduct this type of situation.

Objective

To identify in the light of the nurses, the application of pain scale in patients hospitalized in intensive care and medical clinic in a private hospital in the interior of the state of Sao Paulo, Brazil.

Method

This is an exploratory-descriptive research, with a qualitative approach performed at the adult intensive care unit and the medical clinic unit of the Pitangueiras Hospital in the city of Jundiai, Sao Paulo, Brazil. This is a medium-sized hospital, with a range between 17,000 and 20,000 per month in the emergency room, 90 to 100 hospitalizations per month in adult intensive care units and in medical clinics. A total of 32 beds are available in intensive care units and 92 beds in the medical clinic unit.

The sample consisted of 20 nurses. The inclusion criteria used were the following: Nurses who accepted to participate in the study and signed the informed consent term, regardless of gender, with at least six months in the institution in direct care to the patients and that are of scale length, being fixed, sectorial or professional in the adult intensive care unit and medical clinic. The exclusion criteria used were: Those who were absent on the day of data collection or those who wished not to participate in the survey. The instruments used for data collection are composed of two questionnaires, the first sociodemographic with thirteen questions related to gender, age, training, post-graduation, working time in the institution, work sector and worker or party, among others. The second, with a dissertation question about the proposed objective.

The collection was carried out by the researchers themselves after the approval of the Ethics Committee of the University Center Campo Limpo Paulista (UNIFACCAMP) under the number of opinion: 2,261,357 and after authorization from the nursing management of the hospital previously mentioned. The interviews were previously scheduled so as not to interfere with the institutional dynamics and occurred before and after the nurses' work schedule, but the questionnaires were filled only at the institution. For the analysis of information content, we used three phases: Pre-analysis, material exploration and treatment of results, inference and interpretation. During the pre-analysis we performed a floating reading of the material that composes the corpus for analysis; we made the exploration of the material, at which stage the codification, classification and aggregation operations were performed according to the meanings. Finally, we perform the treatment of the results obtained, the inference and the interpretation of the qualitative units of signification [6].

The results were presented in a descriptive way, including excerpts from statements that illustrate each category for better understanding. Participants were identified by the letter "P", followed by a number starting with 1, to ensure their anonymity.

Results and Discussion

Regarding the sociodemographic characteristics of the 20 (100%) participants, it was observed that 8 (40%) are male and 12 (60%) female, 2 (10%), with the age group 21-27 years, 6 (30%) from 28 to 34 years, 8 (40%) from 34 to 40 years and 4 (20%) aged 41 years or older. Of the respondents 1 (5%) had academic training of up to 1 year, 3 (15%) from 2 to 4 years, 13 (65%) from 5 to 10 years and 3 (15%) aged 11 or over.

Of the respondents 16 (80%) are post graduates all as summer sense. In relation to the time in institution 2 (10%) it has 6 months to 1 year, 11 (55%) from 2 to 4 years, 5 (25%) from 5 to 10 years and 2 (10%) more. Among the participants, 7 (35%) work in the medical clinic, 8 (40%) in the adult intensive care unit and 5 (25%) reported working in both sectors, 13 (65%) are fixed and 7 (35%) are revelers and 10 (50%) do the 6-hour day, 1 (5%) of 8 hours and 9 (45%) of 12 hours. The tables with the results of the applied questionnaire (Table 1).

Frequency of scale application	Participants	Frequency %
At admission	10	50%
Start of shift	1	5%
End of shift	-	-
When I remember	-	-
There is no scale of institutional pain	1	5%
I await the protocol	1	5%
Not applicable	3	15%
When the patient has difficulty referring	1	5%
All the time	1	5%
Every 2 hours	1	5%
Depends on diagnosis	1	5%

Table 1: Frequency of application of pain scale (n=20).

Analyzing the above table it is noticed that 50% of the interviewees apply the pain scale only at admission, but we know that to identify and obtain pain improvement we have to include the scale along with the other vital signs: Temperature, heart rate, frequency respiratory and blood pressure. The American Agency for Research and Quality in Public Health and the American Pain Society describe pain as the fifth vital sign [7]. Based on this study we evaluated that it is of paramount importance that professionals are aware of this 5th vital sign for a better evaluation and better care [8]. When the pain scale is applied we can identify the pain intensity of the patients and record in medical records, planning better relief for their pain (Table 2) [3].

Scale type applied	Participants	Frequency %
Numerical	4	20%
Verbal numerical	2	10%
Facial	1	5%
Numerical and facial	2	10%
Flacc	1	5%
Visual, numeric and morse	1	5%
Verbal	1	5%
Visual	1	5%
Do not know	3	15%
Does not apply	4	20%

Table 2: Knowledge analysis of the type of scale applied (n=20).

Since pain is something subjective and each person manifests himself differently, the great challenge of professionals is to know how to measure the pain of each individual. Thus there are some methods for doing this in the form of pain scales [9]. From the 20 (100%) participants of the research, only 13 (65%) use the scale method for pain evaluation and 7 (35%) do not know or do not apply, with these numbers it is possible to realize that pain assessment for this group of respondents is not as common as other vital signs: Temperature, heart rate, respiratory rate and blood pressure, it being known that the patient with pain may have change in the other vital signs.

According to the table above, it is observed that, all the participants of the research consider the scale of pain useful. These numbers demonstrate that the importance of this instrument is perceived by everyone who knows it. The scales are useful to validate the measurement of pain, since from this experience transmitted by the subject it is possible to prove its intensity and its location (Table 3 and 4) [3].

Scale is useful	Participants	Frequency %
Yes	20	100%
No	-	-

Table 3: Utility of applied scale (n=20).

Difficulties with scale	Participants	Frequency %
There are no difficulties	17	85%
Cannot interpret the result	-	-
You do not know how to apply	1	5%
Not applicable at the moment	1	5%
Often the patient does not know how to quantify the pain	1	5%

Table 4: Checking the difficulties in applying the scale (n=20).

Analyzing the above table we can observe that 17 (85%) of the interviewees do not find difficulties in the application of the scales and 3 (15%) do not know the way of application, do not apply and report that often the patient does not know how to quantify the degree of pain. With these figures we noticed that 2 (10%) of the interviewees do not pay attention to the patient's pain assessment, knowing that we have to aim at improving the pain so that the patient can have quality of life and improvement in their treatment (Table 5).

Patients with sedation	Participants	Frequency %
Yes	6	30%
Not	14	70%

Table 5: Pain and sedation scale (n=20).

With the analysis of the answers in the above table, it is noticed that among the interviewed 14 (70%) do not apply the pain scale in sedated patients, while only 6 (30%) apply. We can see that the lack of

knowledge of the application of this type of scale limits its effectiveness in sedated patients. This application is very important for the recovery of the subject even unconscious because the pain is not exempt in sedation. Patients admitted to intensive care units can hardly express their pain. Most of these patients experience pain, which can delay and/or decrease clinical recovery [10]. Therefore it is so important to increase the application practice in clinically unstable patients.

Regarding the qualitative data, when they were approached about the reason for the application of the pain scale, nurses' perceptions were grouped into themes and for the preservation of anonymity the professionals were identified with "P" added to their numerical identification, as follows: Comfort, 5th vital sign, medication efficacy and clinical reasoning.

Comfort

- to apply measures, not only medication, to the patient's comfort... (P10)
- classify the level of pain by assisting in patient comfort and care... (P17)
- decrease or intervene in the suffering of the pcte...(P19)
- seek the patient's best welfare...(P3)
- emotional comfort...(P6)
- psychosocial comfort...(P6)

It is evident that the nurses recognize that the application of the pain scale is possible to promote comfort to the patient. Caring for someone with pain means showing interest and affection, aiming to relieve, comfort the patient thus helping in their quality of life [11]. It is possible to verify that the pain must be valued and completely respected by all, because this feeling causes a great discomfort for the one who feels [4]. Interventions for pain relief are part of a direct care approach. Therefore, techniques that aim to assess pain can be used for an even more humanized care. Therefore, to evaluate and apply measures of relief for pain, provide more comfort and well-being to the subject [3].

5th vital sign

- Identify other signs and symptoms due to pain...(P1)
- Important indicator...(P7)
- It is a vital sign...(P7)
- Pain changes everything, FC, FR, PA, humor...(P20)
- For being the fifth vital sign...(P4)

The nurses recognized the scale as an instrument for assessing pain, thus considering the 5th vital sign. The American Agency for Research and Quality in Public Health and the American Society of Pain considered pain to be the 5th vital sign, so that it began to be evaluated along with the common signs [12]. Since the year 2000, the Joint Commission: Accreditation on Healthcare Organizations (JCAHO), decreed the pain as an indicator of quality in the care, being thus considered as fifth vital sign [2]. The painful experience is not only limited to intensity, but behavioral and physiological reactions, such as: facial expression, restlessness, insomnia, irritability, sweating, pallor, tachycardia, tachypnea, hypertension and others must be evaluated [13].

Efficacy of medication

- to obtain an answer to the efficacy of the medication applied... (P13)
- identify the intensity of the pain and thus be able to medicate it... (P9)
- guide the conducts related to drug treatment...(P5)
- we evaluate the pain of our patients and from this the adequate analgesia...(P11)

Participants also apply the scale to prove or evidence drug efficacy. Pain scales are useful for evaluating pain intensity before and especially after the use of some therapy [14]. To measure pain intensity, numerical scales with verbal specifications are recommended. Although simple to apply and interpret, this scale is widely used for better therapeutic readjustment [15]. The evaluation of pain, daily, allows the planning of the correct medication, allowing to verify the effectiveness of the treatments in a safe way [4], thus enabling better pain relief.

Clinical reasoning

- make a possible diagnosis... (P14)
- essential criteria in the patient's clinic... (P2)
- clinical decompensation of the patient... (P2)
- help in clinical reasoning, and in the relevant behaviors... (P8)

The nurses observed that the application of the scale helps in the clinical reasoning, thus improving the choice of the type of intervention when necessary. With the investigation of the pain and characteristics of the patient with pain, it is possible to elaborate in diagnostic reasoning [16]. The nursing team is the one who lives most of the time with the client, therefore, it is necessary to know the signs of pain to always be able to find ways to intervene in their relief [4]. The nursing team identifies, evaluates and notifies the pain, plans the prescribed pharmacological therapeutic schedule and implements non-pharmacological measures seeking relief results, that is, the team organizes and manages the pain [17].

Conclusion

It was possible to verify that all the nurses consider useful the scale of pain, but that for lack of an institutional protocol, many stop applying the scale in important moments. According to the interviewees' answers, the application of the pain scale helps in patient comfort, drug efficacy, clinical reasoning and especially in the evaluation and interpretation of the 5th vital sign.

Participants already knew the definition of pain as the 5th vital sign, but not everyone knew what types of scales could be used for each situation. With this, the creation of a protocol would help the quality of care even more, adding more knowledge for professionals and their clients.

References

1. Martinez JE, Grassi DC, Marques LG (2011) Analysis of the applicability of three pain assessment instruments in different care units: Outpatient clinic, ward and urgency. *Rev Braz Rheumatol* 51: 299-308.
2. Santos JP, Maranhao DG (2016) Nursing care and pain management in hospitalized children: Bibliographic research. *J Braz Soc Pediatr Nurs* 16: 44-50.
3. Bottega FH, Fontana RT (2010) Pain as the fifth vital sign: Use of the evaluation scale by nurses of a general hospital. *Text Context Nursing* 19: 283-290.
4. Pedrosa RA, Celich KLS (2006) Pain: Fifth vital sign, a challenge for nursing care. *Text Context Nursing* 15: 270-276.
5. Saca CS, Carmo FA, Arbuleia JPS (2010) Pain as the 5th vital sign: Nursing team acting in the private hospital with management of the single health system (SUS). *Nursing Course of the Paulista University* 28: 35-41.
6. Bardin L (2008) Content analysis. (4th edn.) Lisbon: Editions 70.
7. Sousa F (2002) Pain: The fifth vital sign. *Lat Am J Nurs* 10: 446-447.
8. Budo MLD, Nicolini D, Resta DG, Büttenbender E, Pippi MC, et al. (2007) Culture permeating feelings and reactions to pain. *Magazine of the School of Nursing of USP* 41: 36-43.
9. Fortunato JGS, Furtado MDS, Hirabae LFDA (2013) Critical patient pain scales: An integrative review. *Pedro Ernesto University Hospital Magazine* 12: 110-117.
10. Sakata RK (2010) Analgesia and sedation in intensive care unit. *Braz J Anesthesiol* 60: 648-658.
11. Rigotti MA, Ferreira AM (2005) Nursing interventions to the patient with pain. *Arch Health Sci* 12: 50-54.
12. Nascimento LA, Kreling MCGD (2011) Pain evaluation as fifth vital sign: Opinions of nursing professionals. *ACTA* 24: 50-54.
13. Sakata RK, Hisatugo MKI, Aoki SS (2003) Pain evaluation. *Society of Anesthesiology of the State of Rio de Janeiro (SAERJ)* 53-94.
14. Potter PA, Perry AG (2001) Nursing in the treatment of pain. *Time* 575-594.
15. Calil AM, Pepper CAM (2005) Intensity of pain and adequacy of analgesia. *Lat Am J Nurs* 13: 692-699.
16. Nascimento JCC, Silva LCZ (2014) Evaluation of pain in patients under care in an Intensive Care Unit: A review of the literature. *Investments* 7: 1984-4298.
17. Mendonca SHE, Leao ER (2007) Implantation and monitoring of pain as the 5th vital sign: The development of a care process. (2nd edn.) Martinari.