



SUPERVISÃO CLÍNICA: ANÁLISE DA AVALIAÇÃO DA DOR PÓS-OPERATÓRIA EM CIRURGIA DE AMBULATÓRIO

Clinical supervision: analysis
of postoperative pain evaluation
in the ambulatory surgery setting

LEONOR TEIXEIRA

Professora Adjunta, Mestre.

ESEP - Escola Superior de Enfermagem do Porto, CINTESIS - Centro de Investigação em Tecnologias e Serviços de Saúde, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto (ICBAS-UP). Porto, Portugal.

✉ loteixeira@esenf.pt

RUI SANTOS

Enfermeiro, Mestrando.

ESEP - Escola Superior de Enfermagem do Porto, Centro Hospitalar Universitário do Porto (CHUP). Porto, Portugal.

CRISTINA AUGUSTO

Enfermeira, Doutoranda.

CINTESIS - Centro de Investigação em Tecnologias e Serviços de Saúde, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto (ICBAS-UP). Porto, Portugal.

CRISTINA BARROSO

Professora Adjunta, Doutora.

ESEP - Escola Superior de Enfermagem do Porto, CINTESIS - Centro de Investigação em Tecnologias e Serviços de Saúde, Porto, Portugal.

LUÍS CARVALHO

Professor Coordenador, Doutor.

ESEP - Escola Superior de Enfermagem do Porto, CINTESIS - Centro de Investigação em Tecnologias e Serviços de Saúde, Porto, Portugal.

Abstract

Clinical supervision, as a formal process of monitoring professional practice, aims to improve decision-making to contribute to safety and quality of care through reflection processes and analysis of clinical practice. This study aimed to compare the postoperative pain evaluation and clinical recording procedures performed by nursing staff and clinical supervisors in ambulatory surgery patients.

The study was integrated into the research project "SAFECARE". It was developed a descriptive cross-sectional quantitative study in an ambulatory surgery unit of a University Hospital in Oporto, Portugal. The study population was the nursing staff with an intentional non-probabilistic sampling method. A questionnaire was constructed and evaluation of postoperative pain, patient clinical and demographic variables was included. This instrument was applied in 116 patients matched by 12 surgical specialties. Results were compared between nursing staff, clinical supervisors and electronic nursing records.

Patients had an average age of 48.6 years, being mostly female. Regarding pain evaluation, the scale most used by nurses (62.1%) and clinical supervisors (67.2%) was the "Numerical Scale". Postoperative pain evaluation scores ranged from 0 to 7, with score 0 (no pain) presenting more frequently by nurses, electronic nursing records and clinical supervisors. 34.5% of results were not documented in electronic nursing records. These findings support the importance of an intervention of clinical supervision in the indicator "pain" for the outpatient surgery setting. Local protocols of clinical supervision practice would contribute to improve postoperative pain evaluation, as well as standardization and optimization of nursing records, thus ensuring quality care.

KEYWORDS: CLINICAL SUPERVISION IN NURSING; PAIN; SURGICAL WOUND; AMBULATORY SURGERY; OUTPATIENT SURGERY.

INTRODUCTION

Nowadays, Portuguese health professionals face several levels of demands. Firstly, patients in the general hospitals are more complex, since they are older and have multi-pathologies and chronic diseases. Secondly, the knowledge is constantly changing and updating, so health professionals are required to be effectively involved in their practice. Clinical Supervision, considered a well-established support system for nurses in countries, such as the United Kingdom, Australia, New Zealand and countries of Scandinavia¹ could be an important tool to help health professionals and organizations reach the presented assumptions.

There's been a lot of changes through the recent years to the Portuguese National Health System, mainly evoked by the requirement's introduced by the Health Ministry in terms of health certification, of which institutions have been forced to develop a set of efforts directed at the certification or accreditation of their quality management systems. Quality has become a priority in health sector, and carry is the focus of the institutions, being part of its strategies to promote continuous improvement, cementing a culture of quality and safety, and is only possible through the voluntary commitment of all the professionals. There is scientific evidence that points to the benefits of implementing a clinical supervision model in the quality of nurses' care and in the safety of the patients at different levels.

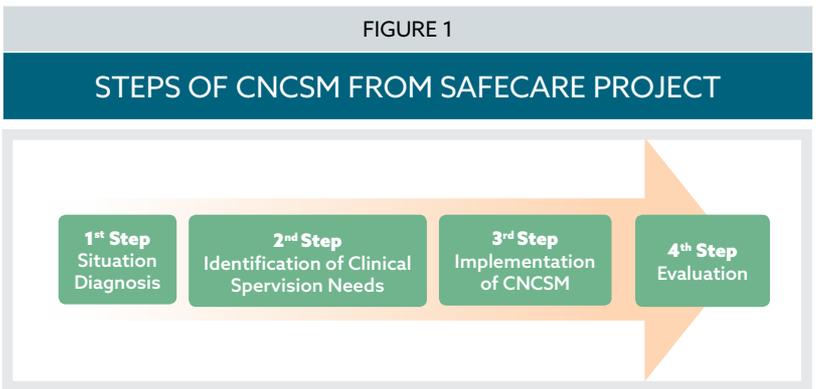
Clinical supervision (CS), as a formal process of monitoring professional practice, aims to improve decision-making, while adopting the utmost and most recent scientific evidence, in order to contribute to safety and quality of care through

reflection processes and analysis of clinical practice.

In Portugal, the emergence of establishing a clinical supervision practice was due to the combination of three factors related to the nurses' professional development: i) the permanent education movement in the 1970 decade; ii) the increase in the number of quality and nursing care studies; iii) the quality certification process². The Nurses' Portuguese Order defined Clinical Supervision as "a formal process of monitoring professional practice, which aims to promote autonomous decision making, valuing the person protection and the safety of care, through reflection processes and analysis of clinical practice"³. Clinical Supervision is an activity that allows nurses to echo on their practices, it should not only take place under the guidance of an experienced supervisor (to help conducting the supervisee's reflection process)⁴, but also in a supportive environment (to support the professional development through the sharing of the day-to-day problems with peers), (Brunero and Lamont, 2011)⁵.

The processes of nurses' clinical supervision are not established in Portugal, although the Portuguese Nurses' Order has published a new model of professional development where it is implicit. The SAFECARE Project aims to implement a Contextualized

Nursing Clinical Supervision Model (CNCSM) in twelve surgical wards of a Portuguese hospital, which aims to contribute to the promotion of safety and quality of nursing care. The SAFECARE project, results from a partnership between the the *Escola Superior de Enfermagem do Porto* (ESEP) and the *Centro Integrado de Cirurgia de Ambulatório* (CICA), and is based on four structuring axes: context (refers to the set of elements and circumstances where care is developed and provided), nursing care (focuses on the interpersonal relationship between a nurse and a client, or between a nurse and a group of clients), professional development (refers to the nurses' need in continuing their training during their professional activity that meets their personal goals, care clients, and context/ organizational culture) and supervision (based on concept defended by the Portuguese Nurses' Order). The SAFECARE project also includes four steps (e1). In the first one, a situation diagnosis is performed to assess sensitive indicators to the nurses' personal and professional practice, these indicators will be submitted to an instrument of evaluation elected by the Major Nurse. During the second step of the SafeCare Model we identified the clinical supervision needs felt by nurses. To do that, we held meetings at AS with all elements of



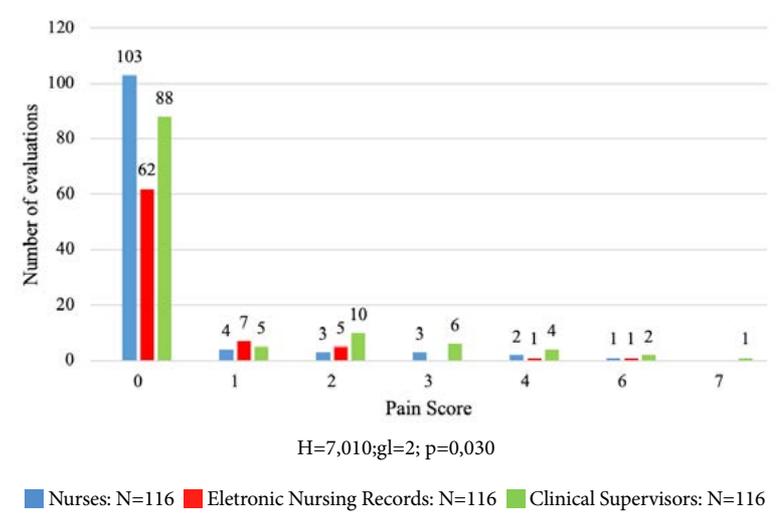
the project, from a Nurse Director, a Nurse Supervisor, to Head Nurses, the project managers and all the nurses from the different teams. In those meetings we explain the project design, the selection criteria of clinical supervisors and clarify all the doubts related with the implementation of the SafeCare Model. This was a way to "break the ice" between the researcher and the participants, since the establishment of trust bonds are very important. On the third step, the (CNCSM) is implemented: group supervision sessions between the supervisors and the supervisees take place, during one year, to meet the supervisory needs felt by nurses. In this third phase, nurses have the chance to discuss various work problems, related to their day-to-day routine so they can feel more secure, supportive, and less helpless. In the four and last step, the process of the CNCSM implementation is evaluated. In order to do that, a relation between the CNCSM applied and all the sensitive indicators to the nurses' personal and professional are again evaluated with the same "modus operandis". The literature states that if the indicators levels are higher after the implementation of a CNCSM, we can predict that the clinical supervision was efficient ^{6,7}.

According to the International Classification of Nursing Practice (ICNP) ⁸, pain can be defined as a "compromised perception: increased uncomfortable body sensation, subjective referral of suffering, characteristic facial expression, alteration of muscle tone, self-protection behavior, limitation of attention focus, altered perception of time, escape from social contact, compromised thinking process, distraction behavior, restlessness and loss of appetite". Pain is considered as a physiological phenomenon that can cause physical and psychological suffering to people, and, consequently, a decrease in quality of life. Acute pain is the main reason for seeking health care by

the population. Chronic pain, due to causing pathophysiological changes that will contribute to the emergence of associated organic and psychological comorbidities, was no longer considered a symptom and was evaluated as a disease. Correct evaluation and pain management, as well as being fundamental to the humanization of health care, should be taken as a priority. In 2003, the DGS issued a Regulatory Circular, on 14 June, regarding pain as the 5th vital sign, making regular evaluation and recording of pain intensity in all service providers of health care. The mentioned Normative Circular also indicates the possible scales that should be used in the evaluation of pain intensity, as well as some basic instructions for its correct use. In the surgical hospitalizations in which we implemented the SafeCare Model, the most common type of pain, for obvious reasons, will be postoperative pain. This can be considered as "a set of diverse sensory, emotional and mental unpleasant experiences, associated with autonomic, endocrine-metabolic, physiological and behavioral responses" (International Association for the

Study of Pain, 2010) ⁹. According to the International Association for the Study of Pain, more than 80% of patients undergoing surgery report postoperative pain, with a worsening of their control after hospital discharge. It also discloses that less than half of the patients with postoperative pain report having a decrease in it adequately (International Association for the Study of Pain, 2010) ⁹. The consequences of poorly controlled post-surgical pain, in the short term, lead to unnecessary suffering, increased risk of postoperative morbidity and mortality, and increased hospitalization times, as well as associated costs. In the long term, acute pain proceeds to chronic pain in 10-50% of patients who have undergone common surgical procedures, and 2-10% of these patients may manifest severe chronic pain (International Association for the Study of Pain, 2010) ⁹. This International Association recommends that acute pain in the postoperative period and responses to analgesic treatment be duly documented. Also, that the analgesic treatment is adapted to the surgical procedure, and that pain is the best possible controlled, when it exists, in the preoperative

GRAPHIC 1
PAIN INTENSITY



period, so that chronic pain can be prevented. The health professionals involved in the peri-operative period should also be sensitized to collaborate in the prevention and treatment of postoperative pain, aiming to improve the clinical outcome (International Association for the Study of Pain, 2010) ⁹.

OBJECTIVES

The objective of the study is to describe the influence of SafeCare Model (a Nursing Clinical Supervision Contextualized Model) on nurses comparing the postoperative pain evaluation and clinical recording procedures performed by nursing staff and clinical supervisors in ambulatory surgery patients.

METHODS:

This is a descriptive cross-sectional quantitative study from the first step from SAFECARE research project that was conducted in the ambulatory surgery (AS) unit of a University

Hospital in Oporto, Portugal. The study population was the unit's nursing staff, with an intentional non-probabilistic sampling method. In order to collect pain evaluation data, an instrument (questionnaire) was built based on the SClínico® software application. This instrument is composed of a first part that makes a brief introduction to the project, explains the objectives of data collection, and provides instructions for completing it. Then a second part arises where it is intended to make a brief characterization of the patient to whom the pain will be evaluated. In addition, finally, a third part where an evaluation of the pain itself is made, through the diagnostic activities, nursing diagnoses and more appropriate interventions.

This instrument was filled three times for each patient selected by the nurse from the set of patients for the shift. Thus, the nurse filled it the first time. The nurse later informed the investigator who the patient was, and the investigator

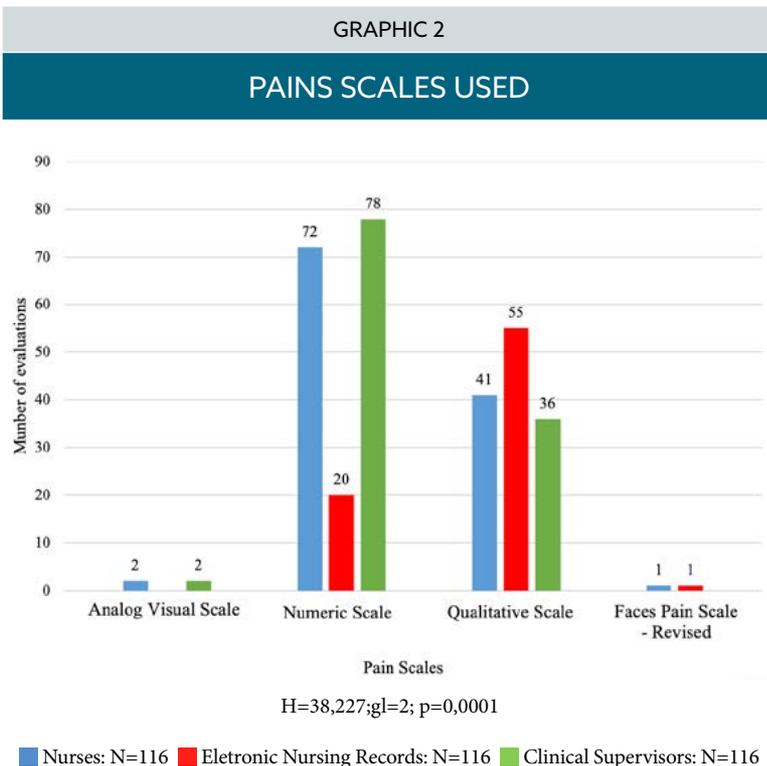
completed the questionnaire again with the patient on the same shift. A third record of the data collection instrument was followed by the investigator, based on records made by the nurse for the shift and for the patient in question.

This instrument was applied to 116 patients matched by 12 surgical specialties. Results were compared between nursing staff, clinical supervisors and electronic nursing records.

The Board of Directors and the Ethics Committee authorized the study, since all the ethical issues related to the application of this type of instruments were considered.

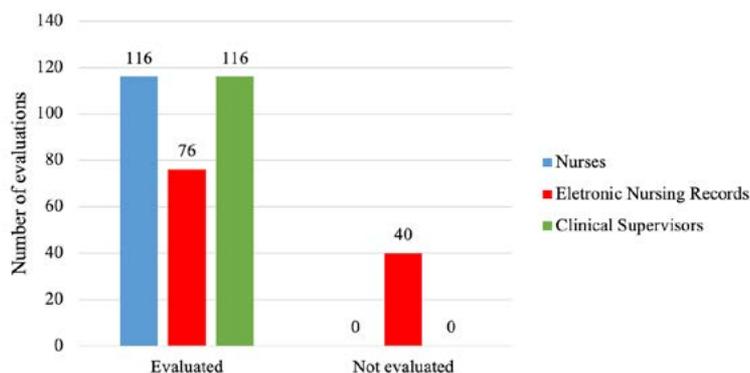
RESULTS:

A total of 348 evaluations were obtained. Patients had an average age of 48.6 years, being 58.6% female and 41.4% male. Regarding pain evaluation, the scale most used by nurses (62.1%) and clinical supervisors (67.2%) was the "Numerical Scale", while the most recorded scale was the "Qualitative Scale" (47.4%). Postoperative pain evaluation scores ranged from 0 to 7, with score 0 (absence of pain) presenting more frequently, namely 88.8% for nurses, 53.4% for electronic nursing records and 75.9% for clinical supervisors. Clinical supervisors registered higher pain scores compared to nurses. 34.5% of results were not documented in electronic nursing records. Analyzing the pain intensity results (**Graphic 1**) it was possible to verify, through the Kruskal-Wallis non-parametric test (H), that there were some statistical differences in the evaluation of pain intensity by the various participants (H = 7.010, gl = 2, p = 0.030). The results with score 0 in the evaluation of pain intensity as the score with more evaluations; to notice that the number of evaluations with this score was different between the three participants, with the nurses' evaluation having the highest number of evaluations (n =



GRAPHIC 3

DIAGNOSTIC ACTIVITY: MONITOR PAIN

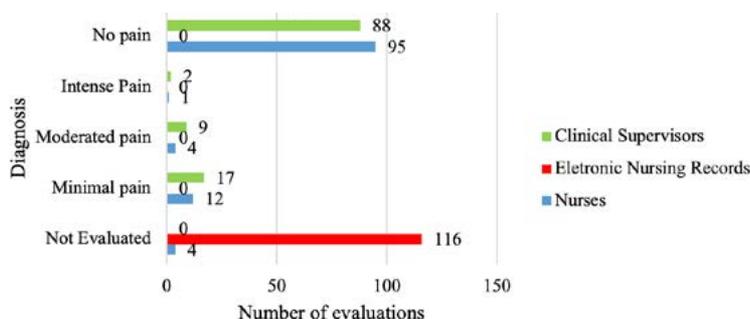


H=90,130; gl=2; p=0,0001

■ Nurses: N=116 ■ Electronic Nursing Records: N=116 ■ Clinical Supervisors: N=116

GRAPHIC 4

PAIN DIAGNOSIS



H=274,926; gl=2; p=0,0001

■ Nurses: N=116 ■ Electronic Nursing Records: N=116 ■ Clinical Supervisors: N=116

activity (**Graphic 3**) had statistically significant differences between the three participants through the Kruskal-Wallis test ($H = 90,130$; $gl = 2$; $p = 0.0001$). It was verified that both the nurses and the Clinical Supervisor performed the evaluation of pain as a diagnostic activity in all cases ($n = 116$), however, in 40 cases the nurses did not document their evaluation.

In the appointment Pain Diagnosis (**Graphic 4**), the non-parametric Kruskal-Wallis test ($H = 274,926$; $gl = 2$; $p = 0.0001$) showed that there was a statistically significant difference between the three participants. It was verified that the diagnosis of pain in the nursing records was never named, although for 4 times the nurses did not appointed it as well; however, "No pain" was the most nominated by both nurses ($n = 95$) and Clinical Supervisor ($n = 88$), being consistent with the pain intensity assessed in the first graphic.

We try to identify too if the intervention "monitor pain" was one of the chosen ones to be carried out periodically by the participants (**Graphic 5**). It was found that there was a statistically significant difference through the non-parametric Kruskal-Wallis test ($H = 26.931$; $gl = 2$; $p = 0.0001$) and the non-parametric test for the intervention. It was verified that both the Clinical Supervisor and the nursing records evaluated pain in all cases ($n = 116$), meaning that this intervention was chosen to be performed periodically, whereas in 13 of the cases, the nurses did not choose this intervention.

Observing the number of pain evaluations registered by nurses during hospitalization, it was verified that, on average, 1.84 pain evaluations were recorded per case at admission.

DISCUSSION:

The results showed significant differences in pain evaluation, which makes this study important in order to present relevant information to

103); the number of evaluations by the Clinical Supervisor was smaller ($n = 88$) compared to the one previously mentioned, since this participant presents more evaluations in other scores compared to nurses; it should be noted that it was verified that in 40 evaluations there were no records, also justifying the difference in the number of evaluations per score when compared with the nurses' evaluation.

Analyzing the pain scales used (**Graphic 2**), the Kruskal-Wallis test ($H = 38,227$; $gl = 2$; $p = 0.0001$) showed

that there were compelling statistical differences in the choice of the scale used to evaluate patients pain among the three participants. The most used scales were the Numeric Scale (NS) and the Qualitative Scale (QS), with the Numeric Scale being more used in the evaluation of the Nurse ($n = 72$) and Clinical Supervisor ($n = 78$) and the Qualitative Scale being the most used in the nursing records ($n = 55$) when these were performed.

The results of data collected of the evaluation of pain as a diagnostic

guide the development of strategies and interventions with the nurses' staff to improve their knowledge and action skills related to pain evaluation.

As a strength points of this study, we can highlight the large number of pain evaluation performed and can present consistent results. Importantly, despite the additional burden of records made by nurses, they were always related to the project. The results presented give a good overview of the state of play and starting point of the SAFECARE Project, providing a solid basis for its continuation and development.

As limitations of the study, it is noteworthy that the pain evaluation of the nurses and the clinical supervisor was not always simultaneous, and this should be taken into account when interpreting the comparison of results between these actors.

CONCLUSION:

The SafeCare Project enables a culture of professional supervision through the application of a Clinical Supervision Model Contextualized, whose methodology aims to foster

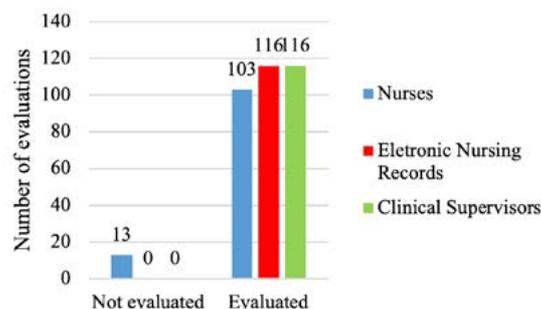
the creation of environments favorable to the practice and development of learning and professional role, through the recognition of the areas sensitive to clinical supervision in Nursing.

The findings in this article supports the importance of an intervention of clinical supervision in the indicator "pain" for the outpatient surgery setting. Local protocols of clinical supervision practice would contribute

to improve postoperative pain evaluation, as well as standardization and optimization of nursing records, thus ensuring quality care.

The exertion of clinical supervision on nurses could lead to better outcomes in the management of conflicts, more desirable results on the basis of practice, guiding to better quality care, safer for the patients and with the uttermost professional satisfaction. ▴

GRAPHIC 5
INTERVENÇÃO: MONITOR DOR



H=26,931; gl=2; p=0,0001

■ Nurses: N=116 ■ Electronic Nursing Records: N=116 ■ Clinical Supervisors: N=116



References

1. Koivu, A., Hyrkäs, K., Saarinen, P. I., 2011. Who attend clinical supervision? the uptake of clinical supervision by hospital nurses. *Journal of Nursing Management*, 69-79. <http://doi:10.1111/j.1365-2834.2010.01185.x>.
2. Abreu, W. C., 2007. *Formação e Aprendizagem em contexto clínico. Fundamentos, teorias e considerações didáticas.* Coimbra: Formasau. Formação e Saúde.
3. ORDEM DOS ENFERMEIROS. *Caderno Temático. Modelo de Desenvolvimento Profissional. Fundamentos, processos e instrumentos para a operacionalização do Sistema de Certificação de Competências.* 2010, p.5
4. Gonge, H., Buus, N., 2011. Model for investigation the benefits of clinical supervision in psychiatric nursing: A survey study. *International Journal of Mental Health Nursing*, 102-111. <http://doi:10.1111/j.1447-0349.2010.00717.x>.
5. (Brunero and Lamont, 2011). Sydney, New South Wales Australia.
6. Koivu, A., Saarinen, P. I., Hyrkäs, K., 2012. Does clinical supervision promote medical-surgical nurses' well-being at work? A quasi-experimental 4-year follow-up study. *Journal of Nursing Management*, 401-413. <http://doi:10.1111/j.1365-2834.2012.01388.x>.
7. Cruz, S., 2012. *DO AD HOC A UM MODELO DE SUPERVISÃO CLÍNICA EM ENFERMAGEM EM USO.* Dissertação apresentada à Universidade Católica Portuguesa para obtenção do grau de Doutor em Enfermagem.
8. INTERNATIONAL COUNCIL OF NURSES -CIPE® Versão 2015 - CLASSIFICAÇÃO INTERNACIONAL PARA A PRÁTICA DE ENFERMAGEM. Edição Portuguesa - Ordem dos Enfermeiros, maio de 2016DGS, 2008, p.54
9. International Association for the Study of Pain, 2010