



Assessment of Acute Pain in Nursing Practice in Latvia

Iveta Strode, Sandra Seimane

International Journal of Collaborative Research on Internal Medicine & Public Health
Vol. 3 No. 4 (April 2011)

International Journal of Collaborative Research on Internal Medicine & Public Health (IJCRIMPH)

ISSN 1840-4529 | Journal Type: Open Access | Volume 3 Number 4

Journal details including published articles and guidelines for authors can be found at:

<http://www.iomcworld.com/ijcrimph/>

To cite this Article: Strode I, Seimane S. Assessment of Acute Pain in Nursing Practice in Latvia. *International Journal of Collaborative Research on Internal Medicine & Public Health*. 2011; 3(4):320-326.

Article URL: <http://iomcworld.com/ijcrimph/ijcrimph-v03-n04-04.htm>

Correspondence concerning this article should be addressed to Iveta Strode; Faculty of Medicine, P.Stradiņš Medical College of the University of Latvia, Latvia / Email: ivetastrode@inbox.lv

Paper publication: 10 May 2011

International Journal of Collaborative Research on Internal Medicine & Public Health

Editors-in-Chief:

Asst. Prof. Dr. Jaspreet S. Brar (University of Pittsburgh, USA)
Forouzan Bayat Nejad

Executive Editor: Mostafa Nejati

Deputy Editor: Dr. Mensura Kudumovic (University of Sarajevo, Bosnia & Herzegovina)

Associate Editors:

Dr. Monica Gaidhane
Dr. Suresh Vatsyayann (FreeGP, New Zealand)

Assessment of Acute Pain in Nursing Practice in Latvia

Iveta Strode *, Sandra Seimane

Faculty of Medicine, P.Stradiņš Medical College of the University of Latvia, Latvia

* Corresponding author; Email: ivetastrode@inbox.lv

ABSTRACT

Background: International Association for the Study of Pain defines pain as annoying sensations and emotions associated with actual or potential tissue damage or is described as such damage. Pains always are considered to be subjective sensations with multidimensional nature composed from physical, emotional and cognitive components. One of the main tasks in pain syndrome effective therapy is the option to perform objective assessment of pain intensity and quality utilizing principle of continuity. Independent surveys on pain management in postoperative period are performed in different countries of the world. Studies analyze effectiveness of both - medical and non-medical measurements in order to reduce pain syndrome. Very few investigations of chronic and acute pain influence on recovery process, progress and outcome of illness, assessment of pain intensity and quality are performed in Latvia. In the case of acute pain chronification, pain perception and management can be changed; pains become inadequately long lasting and may combine with psychogenic pains. According to the data obtained by the World Health Organization, fifty percent patients after injuries or operations have severe and insufferable pains despite the development of acute pain treatment and care. Insufficiently controlled postoperative pains become a risk factor for development of various abnormalities.

Aim of the study: To study the usage of postoperative period pain intensity and quality assessment scales in the clinical practice of nursing, as well as availability of these methods

Material and methods: Survey utilizes quantitative research method. As an investigation tool was chosen questionnaire. Survey was carried out in the surgical profile wards in Riga and regional clinics of Latvia. Questionnaire embraced 309 nurses, working in the surgical profile.

Results: Assessment of acute pains should be considered as the fifth vital sign providing more successful achievement of aims in pain care. Respondents recognize that in pain assessment pain evaluation scales are rarely used. In clinical practice prevails assessment of patient's subjective condition. Only 5% of nurses – respondents utilize visual analogue scale, 22% - verbal pain scale, 16% - numerical pain rating scale. Investigation data confirm the role of professional experience of nurse in organization of pain assessment and care work, because 98% of respondents mention pain assessment as a constituent of nursing.

Conclusions: One of the main objectives in effective therapy of pain syndrome is the possibility to perform objective assessment of pain intensity and quality. This objective should be achieved only with a help of shared team work – nurse, physician, anesthetist and other medical staff.

Keywords: Acute pain, assessment of pain, nursing, pain management, postoperative pain in adults, postoperative patient care

Introduction

Today pain is viewed as a multi-dimensional phenomenon, comprising biological, psychological, social and existential elements. Given that nurses have more contact with hospitalized patients than any other member of the healthcare team, and the fact that they have the prime role in promoting comfort and pain relief, it is crucial that they are to make accurate pain assessment.

Acute untreated pains may cause clinical and physiological changes in the body. Postoperative pains represent a kind of acute pains and are related to extensive lung tissue injuries and traumatic edemas of surgical wounds that turn into the sources of long lasting pathological impulsations.

Surgical trauma is accompanied by marked metabolic deviation, as well as changes in endocrine and immune systems. Therefore may develop many mechanisms slowing down intestinal actions, causing alteration in respiratory function and hypoxemia. Hence assessment of acute postoperative pains and effective prevention may improve functional results, lessen body response to stress of operation, prevent complications and improve life quality.^[1]

Quality ensure in pain management includes the quality of structure or availability of therapy standards, the quality of processes or pain evaluation and patient information, as well as the quality of results involving problems on pain induced functional disorders and side effects.^[2, 3]

In order to evaluate the pain intensity and quality in clinical practice are used scales and questionnaires based on the critical self-examination of the subjective senses of the individual and self-assessment of pains. Common one-dimensional pain rating scales

are visual analogue scale, numerical pain rating scale and verbal pain scale.

Sufficient relieve of pains and timely pain control influence patient's feeling of comfort, immunological responses, sleep, appetite, daily activities and duration of hospitalization. When the length of treatment decreases, costs on treatment and nursing decrease too.^[4]

Aim, material and methods

Aim of the survey is to study the usage of postoperative period pain intensity and quality assessment scales in the clinical practice of nursing, as well as availability of these methods.

Study utilizes quantitative research method. As an investigation tool was chosen questionnaire. Survey was carried out in the surgical profile wards in Riga and regional multi-profile clinics of Latvia. Questionnaire embraced 309 nurses, working in the surgical profile.

Questions of the questionnaire for surgical profile nursing staff were subdivided into the following groups:

- general part (age, gender, professional education, professional work experience);
- questions on utilization of postoperative pain assessment methods and its efficiency in the daily nursing process;
- questions characterizing model of postoperative pain assessment organization and the factors influencing usability of postoperative pain assessment methods.

Research was performed in 2008 - 2009. Statistical data analyses were performed using MS Office Excel program. For assessment of

statistical credibility was utilized independent two-sample t-test.

Distribution of respondents by age: 18% between 21-30, 28% - 31-40, 33% - 41-50, 13% - 51-60, 8% more than 60 years old. Professional experience: more than 50% of respondents have practical work experience in profession for 20-25 years and 66% have more than 6 year long work experience in surgical patient care.

Professional education of respondents: secondary vocational education – 53%, 1st level higher professional education – 18%, higher education – 29%. Gender of respondents: 98% - female, 2% - male.

Results

Objective and subjective pain assessment methods are used in postoperative pain assessment. As a prevailing pain assessment method should be mentioned assessment of patient's subjective condition and it is used by 81% (251/309) of respondents. Visual analogue scale utilizes 5% (15/309), verbal pain scale 22% (69/309), and numerical pain rating scale 16% (48/309) of respondents (Figure 1).

One of the main postoperative pain management aspects is medical therapy. Its effectiveness is determined by its purposeful and reasonable usage. It was very essential to query respondents' opinion and clinical experience on utilization of medical therapy. Obtained results shows that 45% (139/309) of respondents mention positive effectiveness of regular pain therapy, 28% (87/309) place emphasis on relevance of starting pain therapy before pain syndromes appear, 12% (37/309) – consider that pain therapy is based only on physician's prescription, 15% (46/309) – recognize that effectiveness of the pain therapy is based only on existent patient's complains on pains.

Conclusions, after analyzing respondents' knowledge self-assessment and sources for the obtaining knowledge on postoperative pain assessment as well as possibilities for such therapies, are: 49% (152/309) of respondents evaluate their knowledge, obtained acquiring professional nurse basic education program, as sufficient, 52% (162/309) as a source of knowledge mention long-term practical work experience, 2% (5/309) evaluate their knowledge as insufficient and 3% (7/309) of respondents consider that such knowledge is not necessary and pain assessment is not a competence of nurse.

Asking about factors and conditions promoting effective postoperative pain assessment, 50% (154/309) of respondents as the main thing mention existence of appropriate nursing organization model and nursing documentation, 71% (218/309) – significance of team work principle (physician – nurse) in nursing, 20 % (63/309) of respondents observe additional theoretical knowledge on pain assessment methods.

31% (95/309) of nurses in inquiry mention inadequate model of nursing organization because pain assessment occur plan less and 9% (29/309) of nurses mark that it is rarely recorded. Basic aim of post operation pain evaluation is to contribute utilization of appropriate pain therapy. Aim could be reached only with a regular nursing organization model.

Study clarifies respondents' opinion on patients' knowledge about the possibility to receive anesthetic therapy in postoperative period. 62%(190/309) of respondents consider that patients are informed about possible anesthetic therapy, 27% (85/309) mention partial patients' awareness, 11% (34/309) of respondents consider that patients are not sufficiently informed on anesthetic therapy in postoperative period (Figure 2).

47% (146/309) of respondents observe that acute pain assessment is necessary in order the patient can feel himself safe, 68% (210/309)

mention that it should be done to reduce subjective sensations caused by pain, 46% (142/309) consider that it should be done to ensure comfort for the patient, 44% (137/309) – to lessen fear and stress (Figure 3).

Discussion

Very few investigations of chronic and acute pain influence on recovery process, progress and outcome of illness, assessment of pain intensity and quality are performed in Latvia. This is the first report on acute pain assessment in nursing in Latvia.

Nursing is a systematic problem detection and solving method with planned operation in order to ensure individual care in patients with various health conditions.

Nurse competence is complicated and bases on scientific studies and theoretical acknowledgement.

Nursing theoretician P. Benner nurse competence defines as - competence is a conception of the definite branch, performance of skills in this area, as well as an identification of this sphere, comprehension and utilization of its functions, aims and meaning.^[5] Data obtained by the investigation confirm the role of nurse's professional knowledge in pain assessment and nursing work organization because 98% of respondents consider patient's pain assessment as a constituent of nursing process. In postoperative pain assessment should be taken into account localization and character of pains, patient's comprehension and response to pains. Not always the cause of the pain is an operation wound. Pains may be caused by full bladder, disturbance of defecation, reduced blood circulation due to immobile condition, pressure or muscle spasms.

Nurse plans and performs actions strengthening patient's protection, examines physical, emotional, private and surrounding

factors promoting reduction of patient's pain sensation, educates patient about nursing staff manipulations^[6], as much as possible lessen the influence of troublesome psychologic factors.^[7, 8]

Human is a creature able to explain and translate the world through his perception of things resulting from personal importance and it forms and defines human's response to ongoing situation deeply influenced by the language, culture, history and context of the situation. Religious and transcultural influence on pain perception prevails in research realized in Israel on the role of nurse in pain assessment of surgical patients.^[9]

Pain assessment is the fifth vital sign.^[10, 11] Study of Danish nurses on pain monitoring, conducted in five clinics, conclude that 83,6% of nurses postoperative pain assessment consider as a routine, whereas 78,1% of nurses pain assessment put forward as a vital sign in postoperative period. This inquiry stresses that documentary assessment of pain plays a great role in postoperative pain management.^[12]

The model of anesthetic therapy management is closely related to developed strategy of particular clinic.^[13] The given research activates the necessity to work out pain management work model in nursing.

Pain assessment is a team work created by physician, nurse and other nursing staff^[14, 15], and one of the principal objectives is to provide objective pain analyze and well timed pain prevention.^[16]

Conclusions

One of the main objectives in effective therapy of pain syndrome is the possibility to perform objective assessment of pain intensity and quality. This objective should be achieved only with a help of shared team work – nurse, physician, anesthetist and other medical staff. Assessment of pain quality and intensity in

nursing occur spontaneously, it is not planned, and only in rare cases is recorded.

Acknowledgements

This study has been supported by the project of European Social Fond (ESF)

References

1. Kehlet, H. The stress response to surgery: release mechanisms and the modifying effect of pain relief. *Acta Chir Stand Suppl.* 1989; 550: 22-8.
2. Neugebauer E.A.M., Wiebalck A., Meissner W., Simanski C., Stehr-Zirngibl S. Qualitätsmanagement in der Akutschmerztherapie // Akutschmerztherapie – Ein Curriculum für Chirurgen. Bremen: UNI-MED, 2008; 145-147.
3. Meissner W., Rothaug J., Zwacka S., Schleppers A. Qualitätsverbesserung in der postoperativen Schmerztherapie. *Anaesth Intensivmed.* 2006; 47: 95-8.
4. Niv D., Devor M. Position paper of the European Federation of IASP Chapters (EFIC) on the subject of pain management. *European Journal of Pain.* 2007; 11(5):487-489.
5. Steven D.E. Benner and Wrubel on caring in nursing. *Journal of Advanced Nursing.* 2008; 33(2): 167-171.
6. McDonnell A. A systematic review to determine the effectiveness of preparatory information in improving the outcomes of adult patients undergoing invasive procedures. *Clinical Effectiveness in Nursing.* 1999; 3(1): 4-13.
7. Mc Farland G.K., Mc Farlane E.G. Nursing diagnosis & Intervention. Planning for patient care. . Printed in the United States of Amerika: Mosby. 1997; 939.
8. Neuman B.M. The Neuman systems model: A Theory for practice./ In M.E. Parker. *Nursing Theories in Practice.* – New York: National League for Nursing. 1990; 241-262.
9. Sloman R., Rosen G., Rom M.& Shir Y. Nurses' assessment of pain in surgical patients. *Journal of Advanced Nursing.* 2005; 52(2), 125-132.
10. Ballantyne J.C. The Massachusetts general hospital handbook of pain management. Third Edition. In: LeBel A.A. *Assessment of pain.* – Philadelphia: Lippincott Williams & Wilkins. 2006; 58-75.
11. Ballantyne J.C. The Massachusetts general hospital handbook of pain management. Third Edition. In: Ballantyne J.C., Ryder E. *Postoperative Pain in Adults* – Philadelphia: Lippincott Williams & Wilkins. 2006; 279-301.
12. Rond M., Wit R., Dam F. The implementation of a pain monitoring programme for nurses in daily clinical practice: results of a follow-up study in five hospitals. *Journal of Advanced Nursing.* 2001; 35: 590-598.
13. Rothrock J.C. Care of the Patient in Surgery. / Odom J. *Postoperative patient care and pain management.* – Printed in the United States of Amerika: Mosby. 2003; 253-280.
14. Brown C.A., Richardson C. Nurses in the multi-professional pain team: A study of attitudes, beliefs and treatment

- endorsements. *European Journal of Pain*. 2006; 10(1): 13-22.
15. Icier V., Mullet E., Sorum P.C. How nursing personnel judge patients pain. *European Journal of Pain*. 2007; 11(5): 542-550.
16. Coutaux A., Salomon L., Rosenheim M., Baccard A.S., Quiertant C., Papy E., Blanchon T., Collin E., Cesselin F., Binhas M., Bourgeois P. Care related pain in hospitalized patients: A cross – sectional study. *European Journal of Pain*. 2008; 12(8): 3-8.

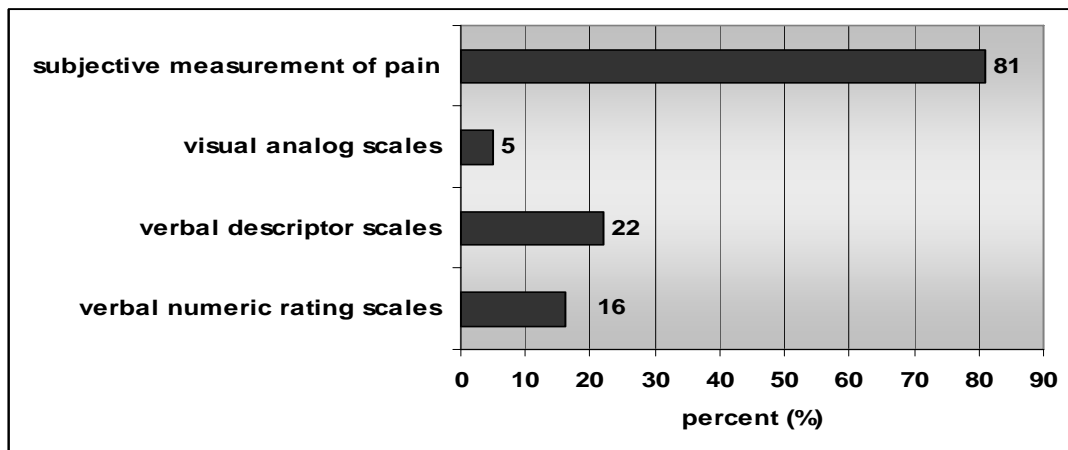


Figure 1: Utilization of pain assessment methods in nursing (n=309)

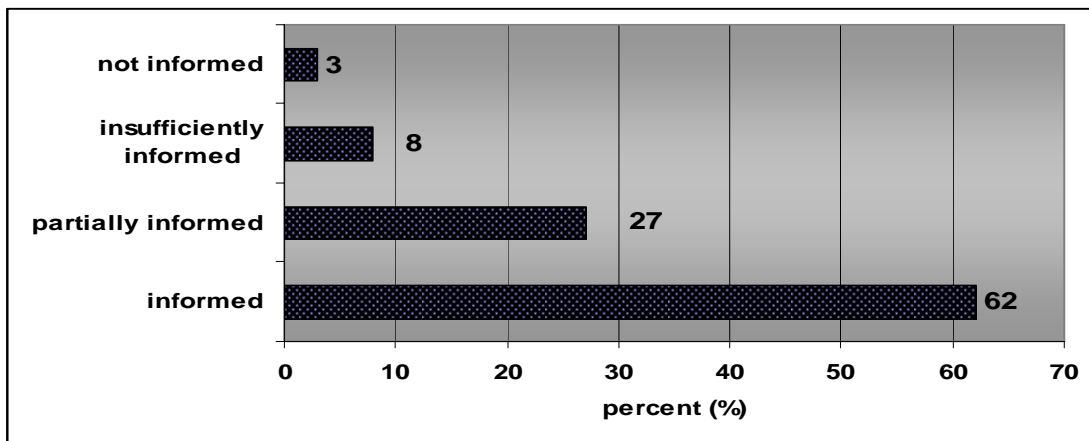


Figure 2: Opinion of respondents on patients' knowledge according possibility to receive anesthetic therapy in postoperative period

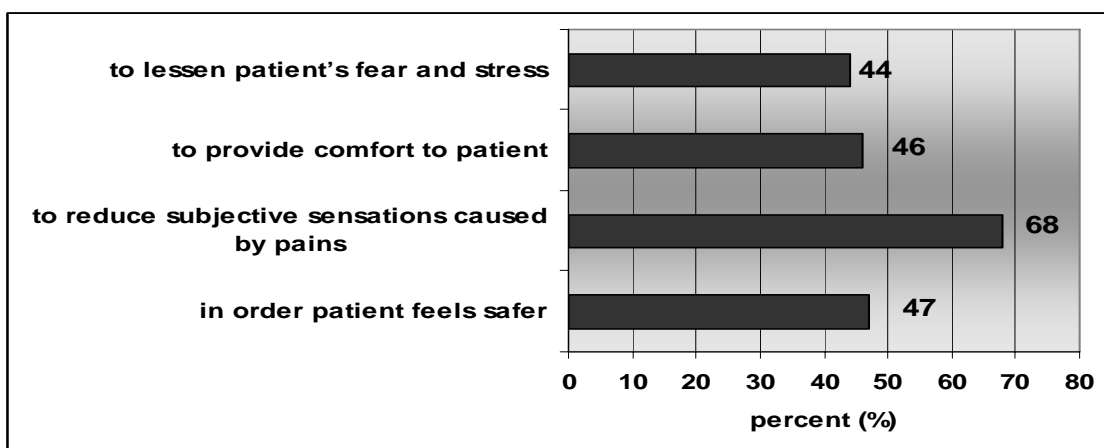


Figure 3: Aims of acute pain assessment care (n=309)