COMPARATIVE DIFFERENCES IN THE PERCEPTION OF POSTOPERATIVE PAIN BETWEEN PATIENTS AND NURSES

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1. INTRODUCTION

Pain is one of the most common symptoms in a medical practice and a complex experience that can not be fully understood only in terms of medical interpretation.

Postoperative pain (acute pain) - a response to a complex interaction of the subjective, emotional and psychological conditions.

The concept of the pain threshold, the point from which someone registers pain, and tolerance, which shows how much pain one can endure is different and depends on the circumstances.

After the declaration of the pain, the hospitalized patient rarely has the ability to objectively show their pain and get that amount of painkillers that he really needed.

The patient's assessment of pain intensity is a key component in providing effective treatment of pain.

Assessment, measurement and reevaluation help reduce the perception of pain in patients, increasing the satisfaction of hospital stay, and improve recovery after surgery.

In today's hospital system, the nurse is the one who assesses the patient's pain (pain level) and informs the doctor (pain management).

On assessment by nurses can affect obstacles such as:

• insufficient knowledge, attitudes, skills and beliefs about pain
• poor documentation of pain
• the patient's age, type and stage of disease
• Myths and misconceptions about pain

Tools for assessment of pain is determined by the strength / quality of one or more dimensions of the patient's experience of pain

- the subjective level measurement

- statement patients on the location, quality and intensity of pain

- pain level measurement

- one-dimensional tools for measuring pain

- multidimensional tools to measure pain

Proven beneficial effects of acute postoperative pain are:

• early discharge of patients from the intensive care unit
• shorter total duration of treatment (less serious complications)
• more efficient use of working time of health personnel
• rational use of expensive hospital equipment
• less on physical inability to work
• achieved greater patient satisfaction
• reduced incidence of developing chronic pain

2. OBJECTIVE TESTS

The overall objective of the study was to determine whether there is a difference in the assessment of postoperative pain between nurses and patients.

The specific objectives of the research were:

- Determine whether the seniority and level of education of nurses in the perception of pain,
- Determine whether there is a difference between nurses and patients in the labeling of the number on the numeric scale and the words on the verbal scale,
- Determine whether there is a difference in the assessment of pain between male and female patients,
- Determine whether there is a difference in the severity of pain intensity with respect to the preoperative preparation of patients in pain.

3. PATIENTS AND METHODS

Conducted a prospective clinical study (120 nurses and 120 patients) in the Department of Surgery, Obstetrics and Gynecology, Ophthalmology, and the Departments of Urology, Orthopedics and Otorhinolaryngology and Head and Neck Surgery in one University Hospital Zagreb, Croatia.

Criteria for inclusion of subjects :

The first group - hospitalized patients of both sexes, in all conscience, and above the 18 - year life. The study included 103 patients, two patients refused to participate, and the four of them is a form filled out incorrectly.

The second group - nurses and technicians, secondary, and university graduates employed in inpatient hospital wards. The subjects were 103 nurses /technicians. One nurse refused to participate, and two could not participate because the patients refused to cooperate. Other nine completely unfulfilled patterns.

Exclusion criteria were patients : patients younger than 18 years, operated on an outpatient basis and discharged the same day, nurses/ technicians employed in clinics and operating tract.
The survey was conducted during the period from 01.06.2013. - 01.08.2013.

One nurse assess one patient in one situation of pain, the first operating day (0-24 hours). They used a pain questionnaire of patients included questions on sex and age of the patient, his expectations and fears about the origin of pain after surgery.

When respondents were nurses taking the data on sex, age, seniority, level of education and working hours.

**Since both groups were required to fulfill offered separate one - dimensional scale for pain :**

- **Numeric pain scale** - NRS - which was meant the level of symptoms on a scale marked with numbers from 0-10, with 0 indicating that there is no pain and 10 is unbearable pain.
- **Verbal pain scale** - VRS - which were offered five ranked statement of "I do not feel pain„ and "I feel unbearable pain"

Numeric data are described basic measures of Environment and scatte-ring. Numerical variables were tested by the Kolmogorov - Smirnov test. Categorical variables are described as absolute and relative frequencies. For comparison of two groups was used Mann Whitney or Student's t – test

For more than two groups is used the Kruskal - Wallis test. For the assessment of the significance of the results was chosen significance level α = 0.05. Were used originally written programs for database and statistical package Statistica for Windows 2005 (version 7.1, StatSoft Inc. Tulsa, OK USA).

4. RESULTS

Characteristics of the respondents
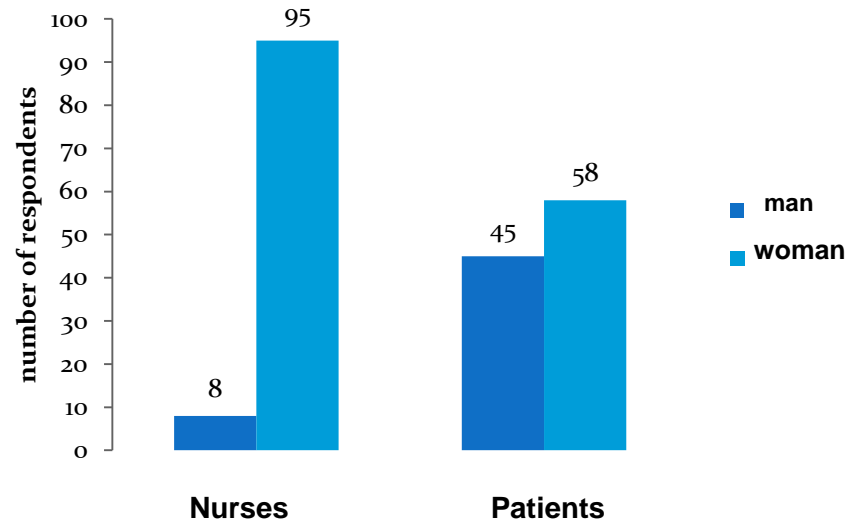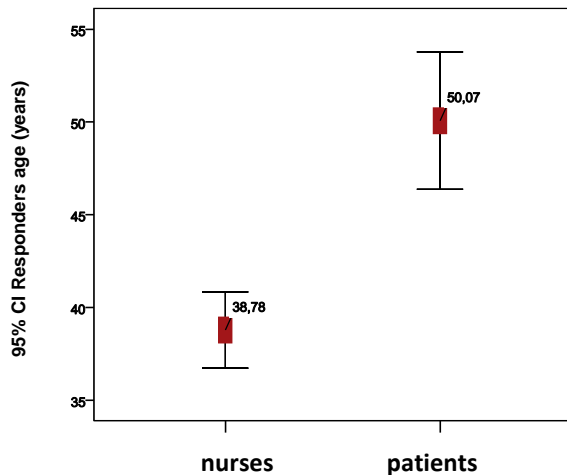
The average age of nurses / technicians is significantly lower, 38.78 (± 10.5) years in relation to patient age 50.07 (± 18.9) years (t-test, p <0.001)

FEATURES OF THE GROUP OF NURSES / TECHNICIANS
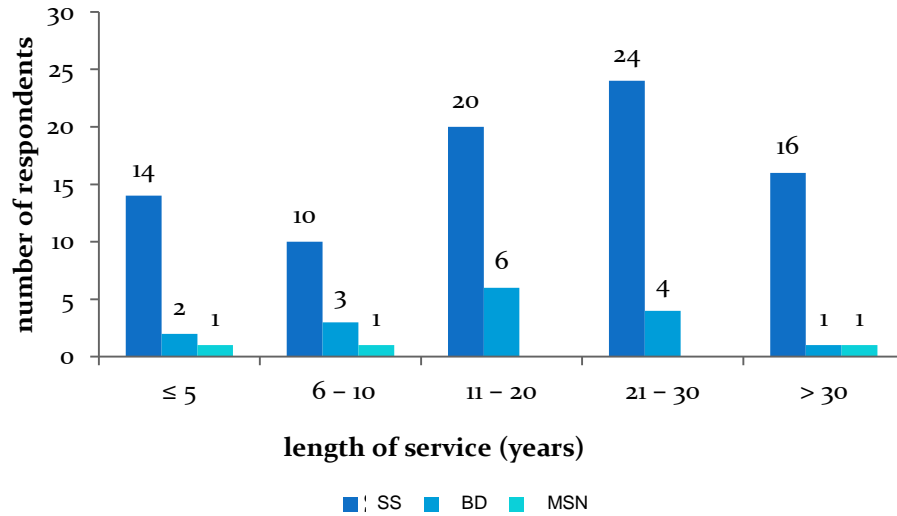
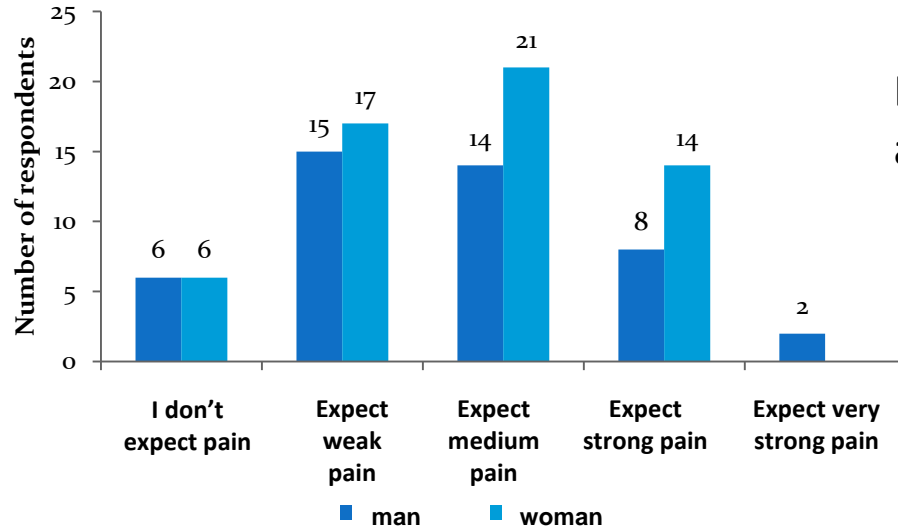Nurses/technicians on qualifications and seniority

Nurses/technicians on qualifications and shift work
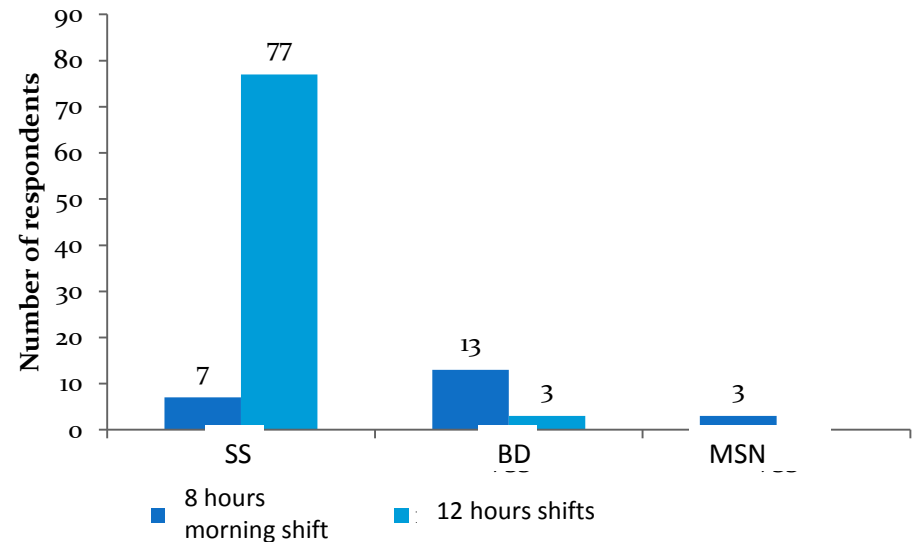
(χ^2 test, p<0,001)

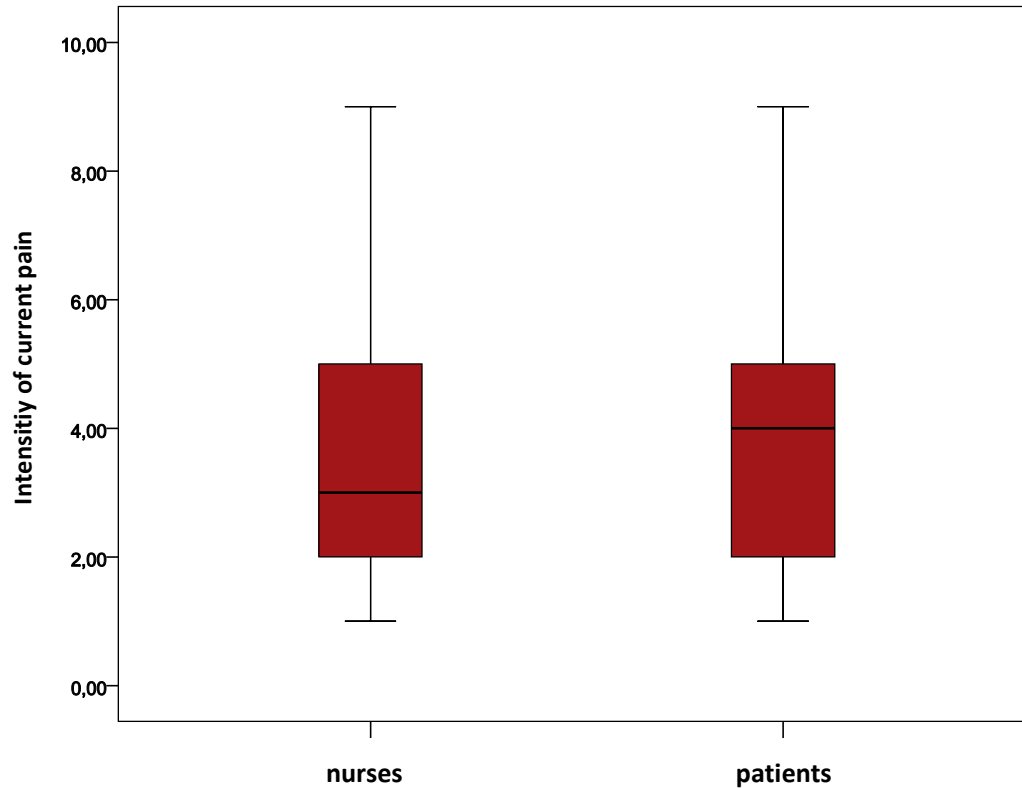# Characteristics of patient groups

Distribution of patients by sex and anticipation of pain after surgery
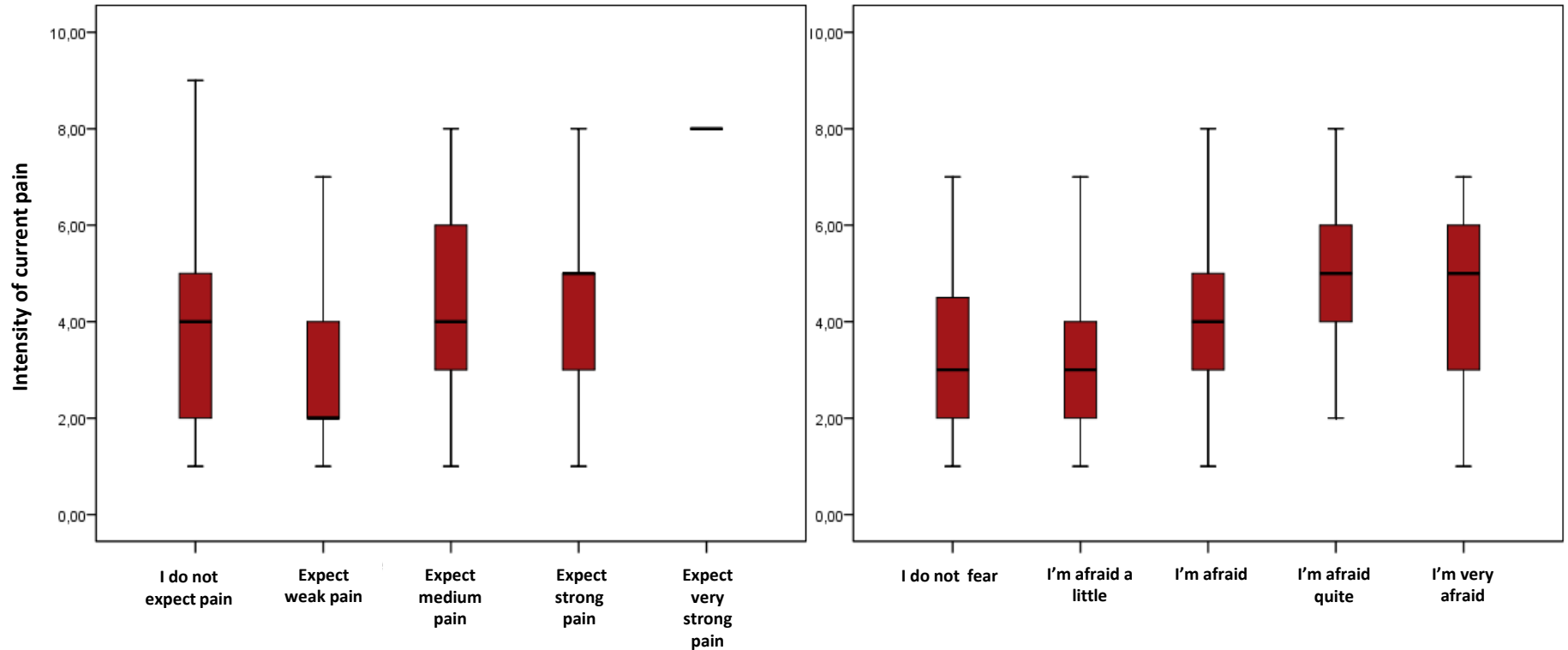
Patients divided by fear of pain and sex
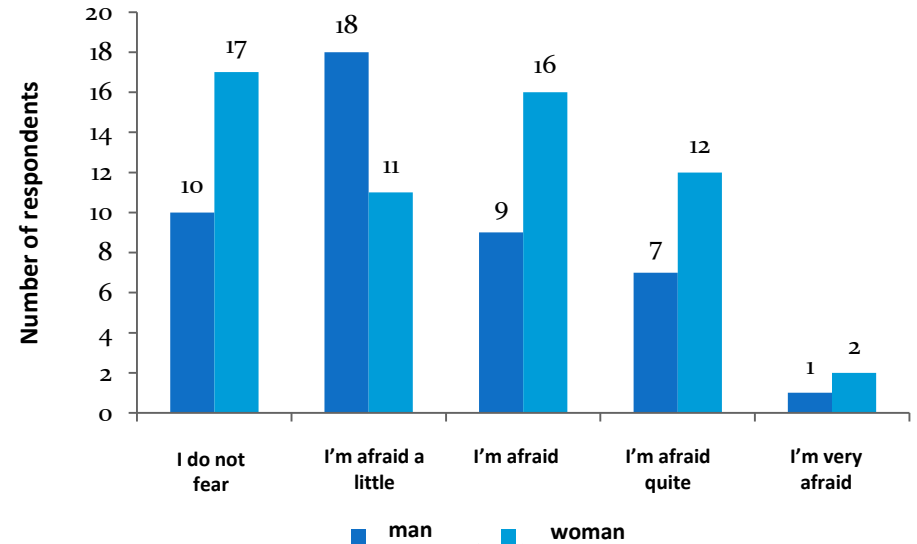
ASSESSMENT ON NUMERICAL SCALE

The median intensity of the current numerical pain scale by groups of respondents

The central value (median) of pain intensity (numerical rating scale) as expected and fears in patients

Significantly different self current pain, depending on what kind of pain are expected before surgery (Kruskal Wallis test, p = 0.002)

Significantly more current assessment of pain given by patients who have a question about the fear of pain responded that they were quite or very afraid, compared with patients who had lower feelings of fear (Kruskal Wallis test, p = 0.019)
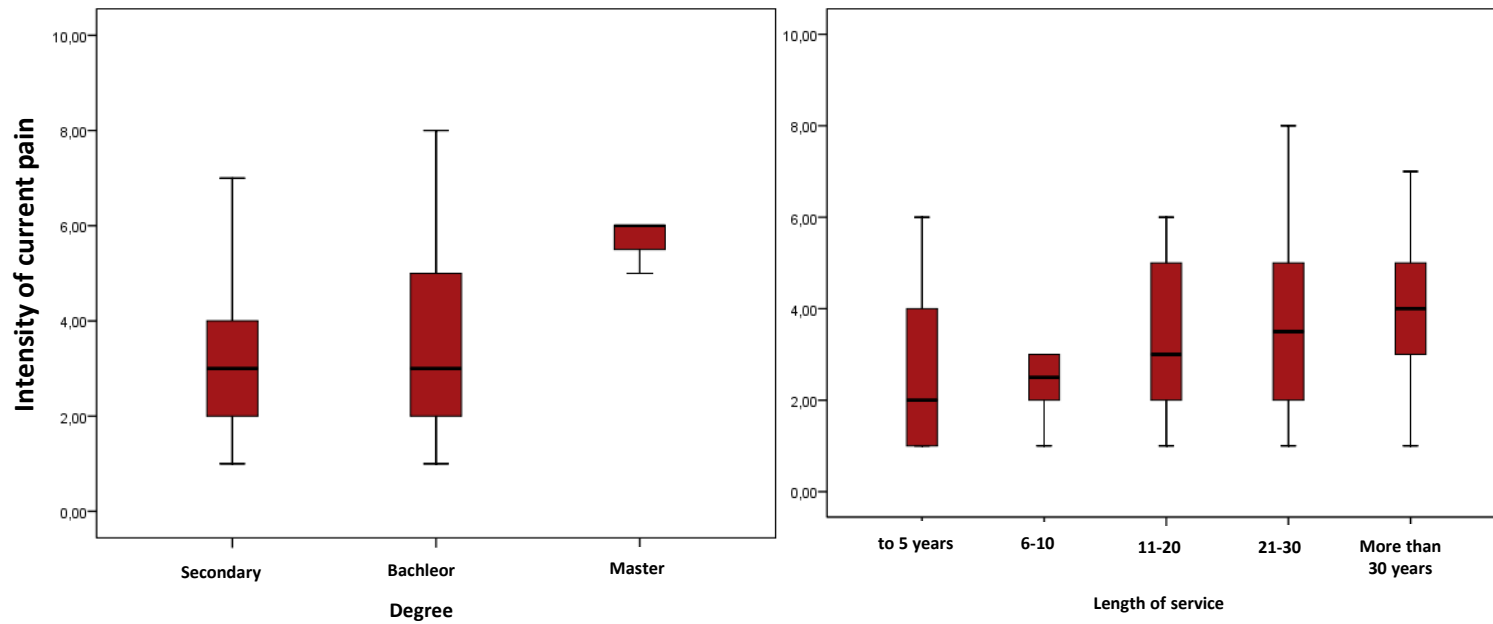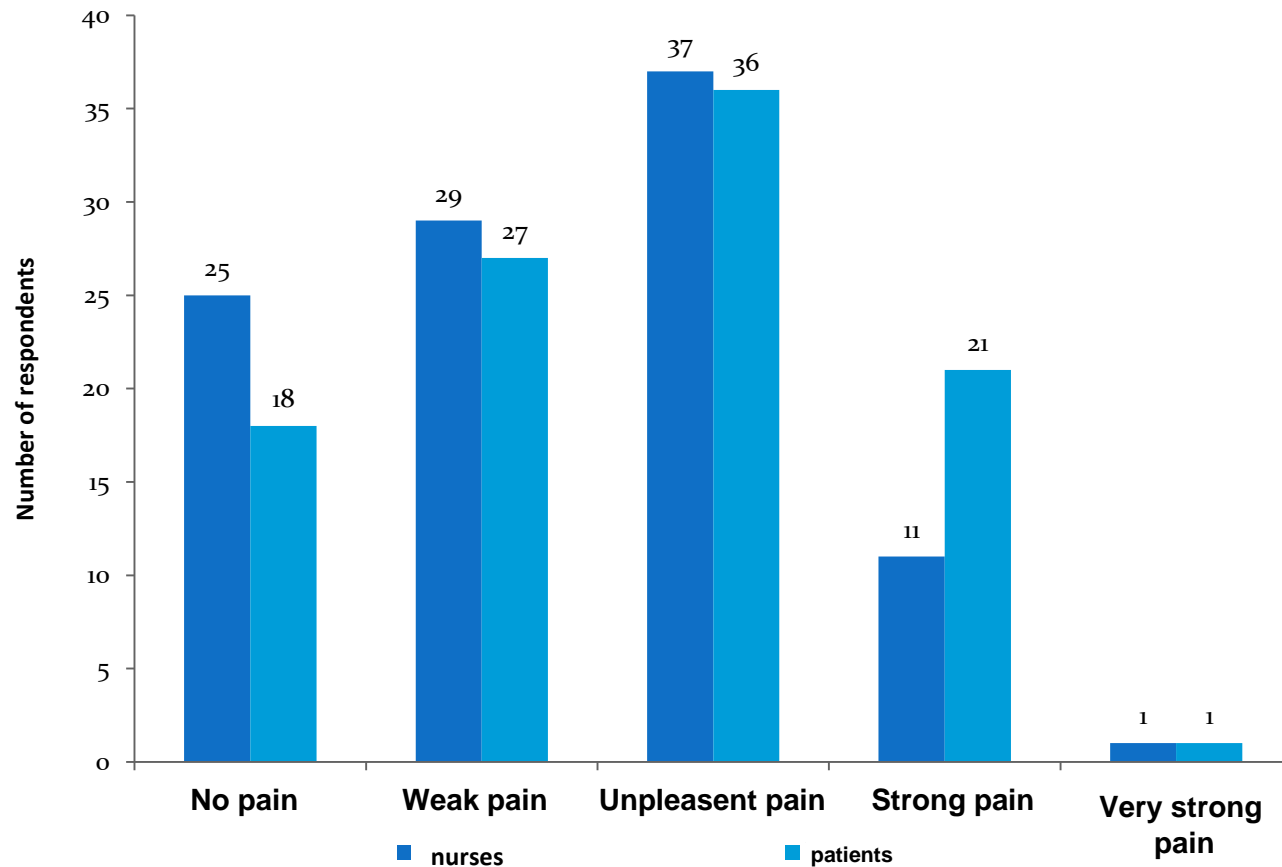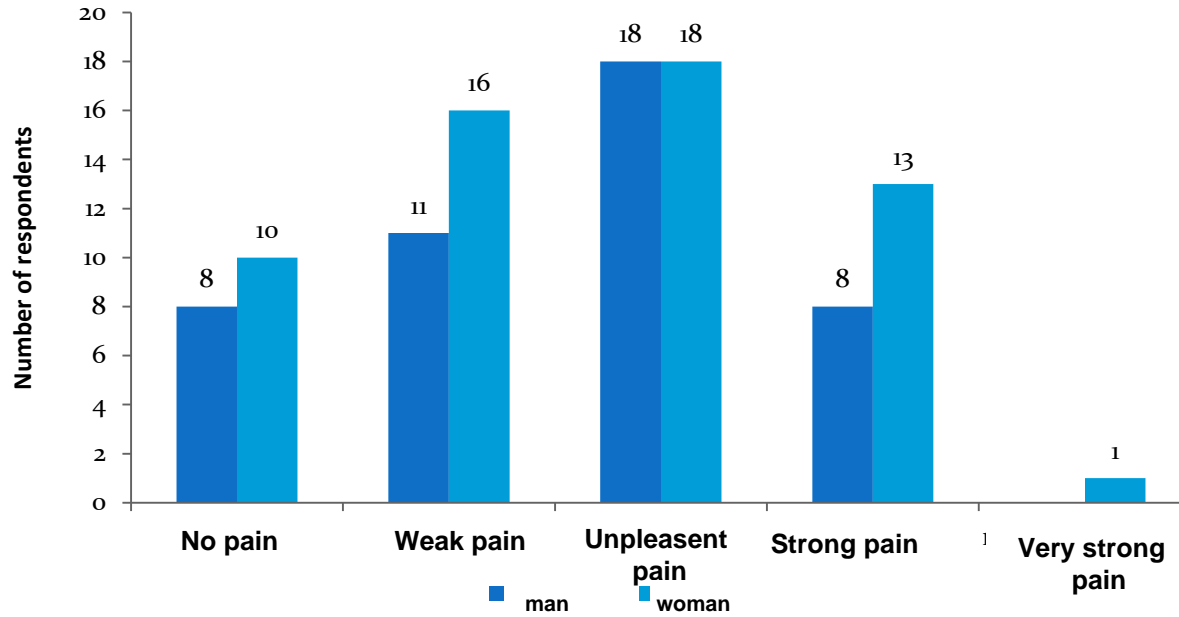
Nurses / technicians assess the current pain with regard to qualifications made alike as well as to the length of service.
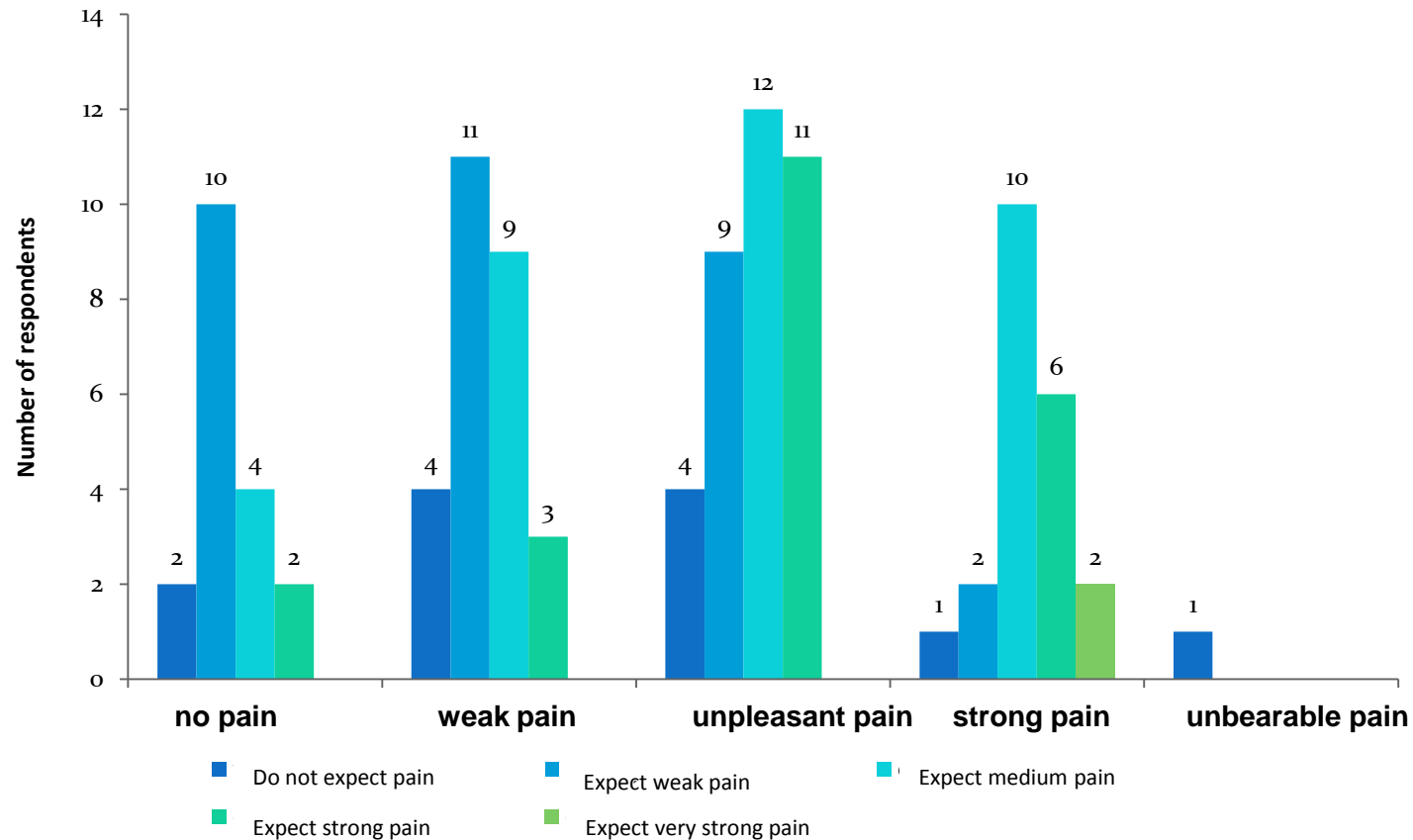
ASSESSMENT OF PAIN IN A VERBAL SCALE

Distribution of respondents by verbal pain scale current

Distribution of respondents by verbal pain scale current

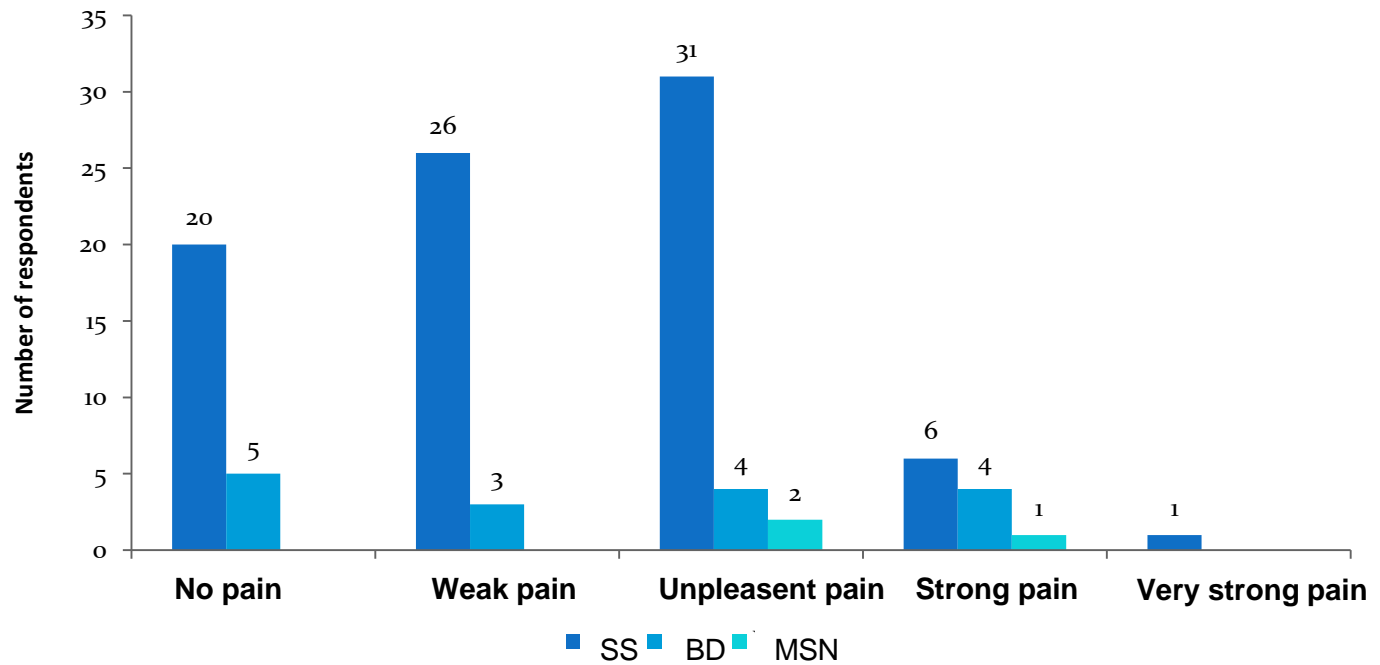Distribution of marks patients verbal scale by anticipation of pain

There is a significant difference in the assessment of verbal scales in patients given the expectation of pain (Fisher's exact test, p = 0.016).
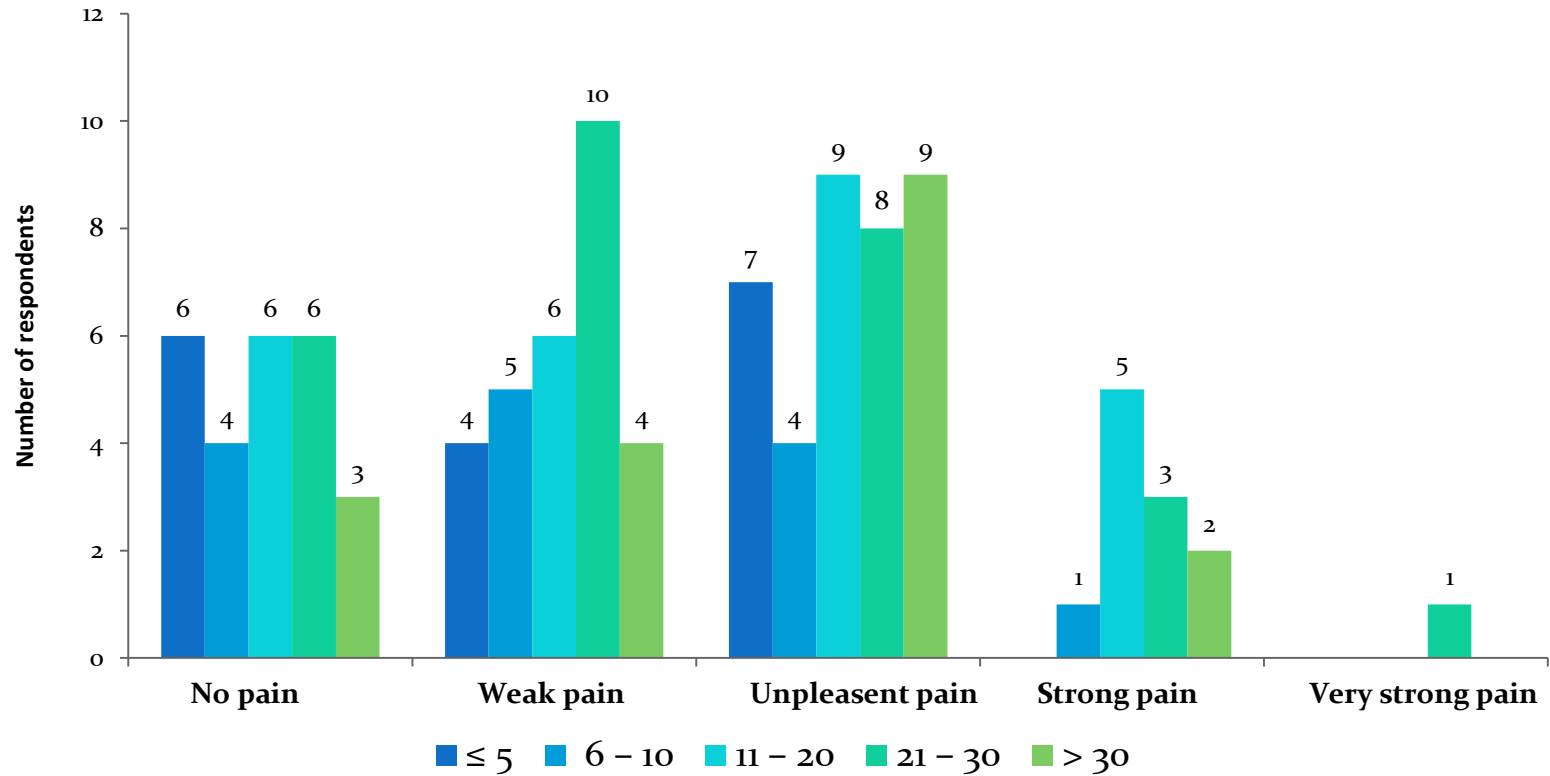
Distribution of marks patients verbal scale by fear
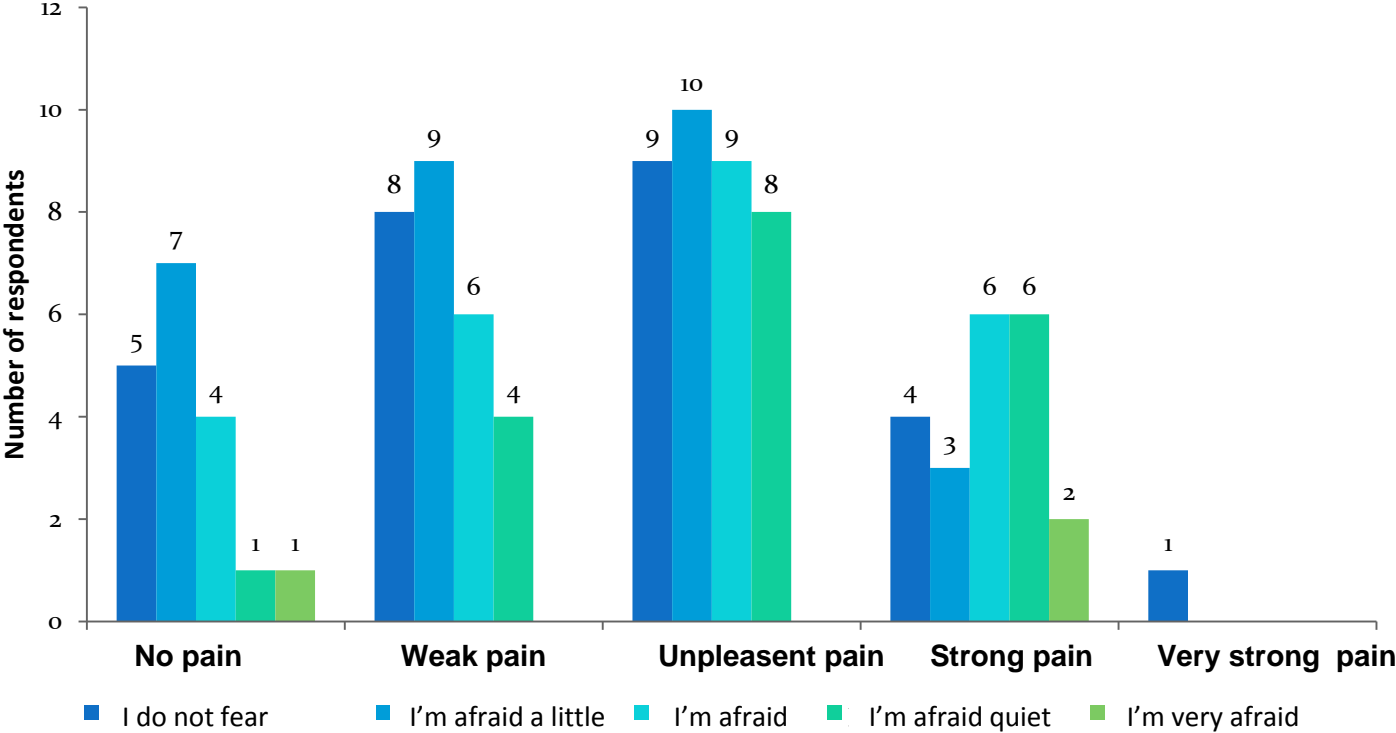
Distribution of marks nurses / technicians verbal scale by qualifications

Distribution of marks nurses/technicians verbal scale by seniority

CONCLUSION (I)

There was no significant difference in postoperative pain assessment between nurses and patients. When patients can not assess pain in the middle of the scale, they evaluated their pain higher and nurses lower.

The length of service of nurses does not affect of the pain perception.

Nurses education level does not affect of the pain perception. The nurses with secondary education are equally sensitive to pain as well as others. Their work with the patient for 24 hours does not reduce the quality of care for patients who have pain.

CONCLUSION (II)

There is a difference between nurses and patients in the identification number on the numeric scale and the words on the verbal scale. **Numerical Scale showed greater sensitivity to pain perception.**

There is no difference in the assessment of current pain between male and female patients.
There is a difference in the severity of pain intensity with respect to the preoperative preparation of patients in pain. Patients with increased expectation and fear of pain in the postoperative course of their pain on a scale estimate higher.

CONCLUSION (III)

Good patient's perception of pain is an indicator of the nurses quality of care.

They are, regardless of seniority and qualifications trained and emphatic to work with acute patients.
Documented objectification of pain and better, structured patient education with written materials, will contribute to the safety and higher quality of nurses work in hospital wards, and patient satisfaction.
The introduction of the direct application of numerical scales for pain assessment will be the first step to better management of pain in patients after surgery in the surgical department of the one University Hospital in Zagreb, Croatia, EU.

Thank You for your attention!

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