

## STUDY PROTOCOL

### Detection and Management of Chronic Neck Pain Effects During Rehabilitation with the Application of Nursing Advisory Support

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**Anastasios Tzenalis, RN, MSc, PhD ( c )**

ICU, TNP/BLS Instructor, General Hospital Papageorgiou, Clinical collaborator ATEITH, Paster Private Institute, Greece

**Anastasia Beneka, PhD**

Associate Professor, Department of Physical Education and Sport Sciences, Democritus University of Thrace, Greece

**Paraskeui Malliou, PhD**

Associate Professor, Department of Physical Education and Sport Sciences, Democritus University of Thrace, Greece

**Georgios Godolias, PhD**

Professor, Department of Physical Education and Sport Sciences, Democritus University of Thrace, Greece

**Nektarios Staurou, PhD**

Lecturer, Department of Physical Education and Sport Sciences, National Kapodistrian University of Athens, Greece

Correspondence: **A.Tzenalis**, Intensive Care Unit, General Hospital Papageorgiou, Ring Road of N.Eukarpia, Thessaloniki, Greece. Telephone:(+30)6947729065 Email: antzenalis@hotmail.com

#### Abstract

**Background:** In the general population 30–50% of adults will experience musculoskeletal neck pain in any given year. The traditional pathoanatomical (biomedical) approach to the diagnosis of neck pain disorders is widely acknowledged as inadequate. Psychosocial factors have been reported associated with increased risk for more disabling chronic neck pain.

**Objective:** The objective of this article is to present the design of a qualitative study in combination with a quantitative pretest posttest-control group design study. The aim of the described research is the construction and performance of a new, valid tool in the form of questionnaire, in order health professionals to administrate emotional reactions of patients suffering from chronic neck pain, the effectiveness of which will be explored in conjunction with the implementation of a specific treatment program and simultaneously, conducting advisory support.

**Methods:** A qualitative study using semi structured interviews will be conducted in 6 patients with CNP. The results of the interviews will arise a reservoir of questions available for the new questionnaire- tool for managing patients' emotional reactions. Validity and reliability of the questionnaire will be reassured checking conceptual validity, content validity and structural validity with the use of exploratory factor analyses and confirmatory factor analyses. Then, 30 participants will be separated in two groups: a) the control group where patients will follow the therapeutic exercise program without parallel counseling, b) the experimental group where participants will follow along therapeutic exercise program plus counseling.

**Outcome measurement:** Inclusion and exclusion variables, demographic variables, duration of neck pain, specific complaint characteristics, smoking, the McGill Pain Questionnaire, the Neck Disability Index, the Fear Avoidance Belief Questionnaire, the SF-36 Health Survey, the new questionnaire of this study, neck goniometry measurements will be the standardized outcome measures.

**Key Words:** biopsychosocial chronic neck pain, rehabilitation, multidisciplinary approach, musculoskeletal neck pain