

# **Master's Degree Program in Physical Medicine and Rehabilitation**

## **Master's Thesis Abstracts**

**2018-2019 academic year**

**Giorgi Katamadze - Rehabilitation of neuropathy caused by a viral infection(H1N1 virus).**

**Supervisor: Kasradze Paliko, Ph.D.**

**Annotation:** The work provides information on neuropathy caused by infectious disease. During its discovery, statistics, diagnostics, and conservative treatment focused on the study of the development of treatment for neuropathy caused by infectious disease and its subsequent rehabilitation.

Symptoms of the acute illness include shortness of breath, general dehydration, dehydration, etc., which can worsen a patient's quality of life. In the case of symptoms, it is important to consider possible risk factors and provide appropriate interventions to modify them, which will help improve the patient's body, functional condition, and quality of life.

**The aim of the study:** To determine the positive effects of regular and targeted physical exercise (early physical therapy) in patients with a tetraplegic form of viral neuropathy.

**Study Outcome:** Conservative and post-treatment rehabilitation has yielded results for the patient. She was able to return fully to society and continue active life.

**The research found:** Regular and well-chosen treatment, early intervention, the right approach and an individualized program give us the best results.

**Master thesis structure and scope:** The thesis consists of introduction, scientific literature review, methodology, results, conclusions, recommendations, applied literature and appendix. The work consists of 50 printed pages.

**Key words:** viral neuropathy.

## **Mariam Gelbakhiani - Use of Targeted Physical Exercises in the Hemiplegic Form of Cerebral Palsy**

**Supervisor: Eliso Murvanidze, Doctor of Education**

**Annotation:** The work provides information about cerebral palsy, its detection, statistics, associated complications, diagnostics, treatment, specific and targeted exercises used. The paper describes the efficacy of the result of intentionally using physical exercise. The correct method of physical training is based on the correct diagnosis. The proper role of a physical therapist in managing the process is important, as it should be able to provide a fully practical solution to the physical rehabilitation mission, goals and objectives, as it has its forms. The issue is marked by the fact that physical training should be tailored to the form of cerebral palsy that is being treated.

**The aim of this study** was to determine the positive effect of regular physical exercise (physical therapy) at an early age in the Hemiplegic Form of Cerebral Palsy.

**Study outcome:** Research has shown that early and regular, well-selected physical exercise improves motor skills and functional independence of children with Hemiplegic Form of Cerebral Palsy.

**Master thesis structure and scope:** The thesis consists of introduction, scientific literature review, methodology, results, conclusions, recommendations, applied literature and appendix. The work consists of 51 printed pages.

**Key words:** cerebral palsy, spasticity, physical therapy, hemiplegia.

**Tamari Berdelidze - Anatomy of the lumbar hernia, treatment and targeted physical rehabilitation.**

**Supervisor: Eliso Murvanidze, Doctor of Education**

**Annotation:** This work provides information on lumbar hernia, its anatomy, statistics, causes, symptoms, concomitant complications, diagnostics, treatment, targeted physical rehabilitation. Physical exercise rehabilitation, which focuses on the study of the development of lumbar hernia disease, confirms the need for physical therapy.

Physical therapy helps people who have difficulty living a normal life and are limited in their daily activities. It is desirable to carry out large-scale studies in this field that will help people working in this field to properly conduct their professional activities and improve their results. Large-scale studies have not been conducted in Georgia, but there is an active need for physical therapy.

The urgency of the issue is that the increase in the number of patients with lumbar hernia and the limitation of quality of life in these patients has led us to consider adequate and targeted treatment through physical therapy, taking into account age, severity of the problem, duration of treatment, and other data.

**The goals and outcomes** of the topic are fully tailored to improve the performance of daily activities for patients with lumbar hernia.

**In conclusion,** timely targeted physical exercise in patients with lumbar hernia improves quality of life and enhances human capacity to work. Proper and individualized treatment programs significantly reduce the severity of physical problems and increase the effectiveness of therapy.

**Master thesis structure and scope:** The thesis consists of an introduction, a scientific literature review, a methodology, results, conclusions, recommendations and a bibliography. The work includes 52 printed pages, list of used materials, and an appendix.

**Key words:** hernia, physical therapy, purposeful physical exercise

## **Giorgi Kutchadze- Shoulder joint injury in rugby**

**Supervisor: Kasradze Paliko, Ph.D.**

**Annotation:** This work provides information on shoulder injury, its detection, statistics, diagnostics, as well as conservative and surgical treatments that focus on the study of shoulder joint development and subsequent rehabilitation.

Symptoms of an acute period include a feeling of discomfort and pain in the shoulder joint, localized edema, and restricted movement that may impair the patient's quality of life.

In the case of symptoms, it is important to consider possible risk factors and provide appropriate interventions to modify them, which will allow us to avoid recurrent episodes.

**The goals and objectives of the topic** are to study the problems of the development of various injuries in rugby.

**The study found** that post conservative and surgical rehabilitation yielded full results for both the patient and the staff in the rehabilitation team, the athlete returned to his profession, and the non-athlete was able to return fully to society and continue active life.

**Research has shown** that regular and well-chosen treatment, early intervention, the right approach, and individualized programs give us the best results.

**Master thesis structure and scope:** The thesis is printed on 56 sheets of paper. It consists of an annotation, a table of contents, an introduction, 3 chapters and 12 sub-chapters, a conclusion and a review of the medical literature.

**Khatia Kipiani: Effectiveness of regular physical exercise in patients with stroke.**

**Supervisor: Eliso Murvanidze, Doctor of Education**

**Annotation:** The work provides information on the effectiveness of regular physical exercise in stroke patients, disease detection, statistics, concomitant complications, diagnostics, treatment focused on the physical development of stroke patients. Physical therapy helps individuals who have difficulty with functional mobility, impair balance and have difficulty adapting to the environment. It is advisable to start the intervention on time. My interest in this topic has been driven by the fact that I have been working as a physical therapist at the National Family Medicine Training Center for the past three years. During this time I have been experiencing scarcity of information due to the materials available in the Georgian academic space. It is desirable to carry out large-scale research in this area that will help people working in this field to develop their professional activities and improve their results. Based on my observations, I confirm the need for physical therapy.

**The goals and outcomes of the topic** are fully tailored to the problems identified during the stroke.

**In conclusion,** we can point out the importance of a proper and individualized treatment program that reduces the severity of physical problems and ensures the effectiveness of therapy.

**Master thesis structure and scope:** The thesis consists of introduction, scientific literature review, methodology, results, conclusions, recommendations and bibliography. The work consists of 40 printed pages, a list of used literature and an appendix.

**Key words:** stroke, physical therapy.

**Levan Naresheli - Strain of ankle joint and foot deformities.**

**Supervisor: Kasradze Paliko, Ph.D.**

**Annotation:** The work presents information on ankle joint strains and foot deformities. The topic is relevant in the sense that both in sports and in everyday life there are frequent complications of ankle joint trauma. This is also confirmed by the fact that in the hospital admissions departments, both in Georgia and elsewhere, the statistics are very high. The treatment of ankle joint damage is quite noteworthy, as it is characterized by severe complications, such as chronic and functional instability of the joint, which are a prerequisite for repeated injury.

As for foot deformities, it is no less important problem. The development of foot deformities is due to many reasons or to an unidentified (idiopathic) factor. Therefore, it is very important to discuss this difficult and complex disease and to identify new methods of treatment.

**The purpose of this study** is to identify new approaches to rehabilitative treatment of ankle joint sprains and foot deformities that will help to achieve positive results in treating these problems.

**The objectives of the study** are to treat the aforementioned injuries or deformities of the ankle joint and foot, the treatment should not go beyond conservative or rehabilitative treatments, the treatment should be properly selected and result-oriented.

**Research Method:** Individual working practice, analysis and review of literature and articles related to the topic.

**Research Findings:** Studies have shown that properly selected and conservative treatment approaches have reduced complications of the disease and, in some cases, the patient has fully recovered.