

CREATING AN ALGORITHM OF ACTION FOR THE “PUBLIC HEALTH” FACULTY STUDENTS RESEARCH TEAMS IN CONDITIONS OF EDUCATIONAL AND CLINICAL PRACTICE

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(Note)

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Abstracts

Studies conducted from March to May 2010 among students of University of Rousse “Angel Kanchev”. We inquired 142 students, of them 94 - women and 48 - men, average age - 22.14 years. Of the respondents 30 were physical therapists, 30 - students of engineering, 26 - from primary school education, 12 - studying law, 10 - from business management and others. A questionnaire was developed with a structure for interviewing students was studied on a modular basis - in 7 modules. The questionnaire included: passport part, health status, health education, physical abilities and qualities necessary for future job; economic prerequisites for sports students from the University of Rousse; activity of students in disaster and crisis situations. Along with the survey for the needs of clinical practice were developed slips with anthropometric measurements of bones and joints, control of the cardiovascular, respiratory and other systems. Prepared and recorded by stage tests were manually-muscle testing, test Bartel, test activities of everyday life /Dej/ gait analysis, tests for cerebral palsy. Slips are completed for each patient at the beginning and end of treatment. Also included are passport data, diagnosis, brief history, appointments, number of performed procedures and more. The survey found out the levels of motivation in students when it comes to risk factors - smoking, and alcohol. Based on the collected data, the lecturers from “Physical Education” department have a chance to update the curriculum.

Keywords: *questionnaire, physical abilities, anthropometric measurements, tests, motivation, kinesiotherapy*

INTRODUCTION

University degree in “Physical therapy” has a 19-year history and is developed successfully since 1992. Simultaneously with the learning process, since 2005 teams of authors made of teachers, students and doctoral students are active in the development of research projects. In 2010 was developed a project with the title “Creating an algorithm of action for the “Public Health” faculty students research teams in conditions of educational and clinical practice”, involving faculty, students and graduate students from the “Physical Therapy” and “Physical Education” departments.

According to state requirements, during the training and clinical practice, summer and pregraduate internships and throughout the education process of students – physical therapists learn how

to implement key kinesiotherapy tools, strategies and techniques to influence the musculoskeletal, cardio-respiratory, nervous and other systems.

In our studied medical literature we found no systematic guide covering the form of “Repertorium” in a short, convenient volume with data of: diagnosis with which to work, its etiology, pathogenesis or mechanism of production, prevalence, classification, clinical presentation, methods of treatment and physiotherapy, etc.

Creation of programs and plans of action for various diseases were found in the works of Karaneshev (Каранешев), 1991; Kostadinov (Костадинов) & Busarov (Бусаров), 1982; Slanchev (Сленчев, Bankov (Банков) & Bonev (Бонев), 1986. The authors establish rehabilitation potential in diseases and injuries of the musculoskeletal sys-

tem, determine the cardiopulmonary rehabilitation potential and electro-diagnosis, but do not specify an algorithm of physical therapy practice and do not include requirements for the necessary research and consistency in applying the different medical treatments. In the works of Koleva (Колева), 2008, the term "algorithm" is used as a way of physical prevention and therapy of some common diseases, but without putting in a sequence of rehabilitation activities.

METHODS

The main objective of the study is to optimize kinesitherapeutic practice of action in the individual student teams work with different nosological units.

Research tasks:

Development and implementation in daily clinical practice of records of the student teams' in divisions and offices of health care facilities in Rousse;

Create and implement in practice the algorithm of action in the work of the individual student teams with different nosological units, based on evidence-based medicine;

Analyzing statistical data processed by the studies /surveys, records, anthropometric measurements, functional tests/ and measuring the impact of application of the developed algorithm of action of the student teams;

- Issuance of materials necessary for academic clinical practice of physical therapy students.

- Organization and methods, stages of research

Stages of research and project implementation included: the first stage - creating appropriate documentation.

A questionnaire was developed with a structure for interviewing students was studied on a modular basis - in 7 modules. The questionnaire included: passport part, health status, health education, physical abilities and qualities necessary for future job; economic prerequisites for sports students from the University of Rousse; activity of students in disaster and crisis situations. 1. Studies conducted from March to May 2010 among students of University of Rousse "Angel Kanchev". We inquired 142 students, of them 94 - women and 48 - men, average age - 22.14 years. Of the respondents 30 were physical therapists, 30 - students of engineering, 26 - from primary school education, 12 - studying law, 10 - from business man-

agement and others.

Along with the survey for the needs of clinical practice were developed slips with anthropometric measurements of bones and joints, control of the cardiovascular, respiratory and other systems. Prepared and recorded by stage tests were manually-muscle testing, test Bartel, test activities of everyday life /Dej/ gait analysis, tests for cerebral palsy. Slips are completed for each patient at the beginning and end of treatment. Also included are passport data, diagnosis, brief history, appointments, number of performed procedures and more.

Emphasis in the theoretical work was the development of protocols by the project manager to conduct the procedures in 30 kinesitherapy nosological units. For each protocol was also developed an action algorithm in the conduct of the kinesitherapeutic treatment.

The third stage - the practical work, lasted for seven months, from April to October 2010 and was held at the District Center for Sports Medicine and Rehabilitation I - Pleven, led by project leader Professor P. Barakova in sheltered family-type house "Pink House"-Ruse, wards in Hospital-Ruse, DCC at Hospital-Rousse in SBALFRM "Medica".

A research and rehabilitation of 268 patients, conducted by the established algorithms was included.

In the last stage - the completion of the project, the evidence from clinical practice was processed; changes were analyzed after application of the kinesitherapeutic and physical treatment of patients. Conclusions were made about the effectiveness of the application of our methods and suggestions for practice were given. The completed questionnaires were processed.

The project achieved its main goal - maximizing kinesitherapeutic practice of student teams for individual work with different nosological units. All included in the project tasks were met.

The practical work covered 268 patients kinesitherapeutic treatment was conducted under our guidance. Of them 163 patients were in areas of orthopedics, traumatology and surgery, mostly with injuries and diseases of the musculoskeletal system. The direction of physical therapy in neurology worked with 46 patients. The direction of internal diseases included 38 patients, and the direction of pediatrics - 21 patients. Spinal deformities such as border disease participated in the first section. Patients were undergoing physical

therapy as established by the National Health Insurance Fund Standards /average of 20 procedures per month/.

Due to the big volume the large-scale study - 268 patients, 142 respondents, 5 slip tests made by us and 30 protocols and the algorithm for different diseases - we present **in an exemplary model** of protocols and algorithms used in our work.

RESULT AND CONCLUSIONS

The created survey assesses health status and health awareness of students of University of Rousse. Correlation was found between future profession and the need to develop certain motor skills in physical education classes.

The survey found out the levels of motivation in students when it comes to risk factors-smoking, and alcohol. Based on the collected data, the lecturers from "Physical Education" department have a chance to update the curriculum.

- Analysis of the anthropometric measurements and functional tests from our 268 patients showed beneficial effects of our trained algorithms and effectiveness of the applied kinesiotherapeutic means.

The strictly pursued physical therapy documentation and evidence became the basis of many research papers-reports, theses, dissertations. In May 2010 were presented nine student-session report of the University of - Rousse, in October-November of that year-14 reports of the faculty and graduate students participating in the project at various scientific forums.

- The project remains open and should be expanded and improved with new ... , objects of the practical training of physical therapy students.

- The developed within the project "Algorithms of action of physical therapy teams" and the protocols for conducting kinesiotherapy procedures, issued in a collection, are suitable for the user, useful for clinical practice in specialized departments, offices, hospitals and health centers.

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**СОЗДАВАЊЕ НА АЛГОРИТАМ ЗА ДЕЛУВАЊЕ НА
 НАУЧНО-ИСТРАЖУВАЧКИ СТУДЕНТСКИ ТИМОВИ ОД
 РУСЕНСКИОТ УНИВЕРЗИТЕТ НА ФАКУЛТЕТОТ
 "ОПШТЕСТВЕНО ЗДРАВЈЕ" ВО УСЛОВИТЕ НА
 НАСТАВНО-КЛИНИЧКАТА ПРАКТИКА**

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 (Научна белешка)

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Апстракт

Истражувањето е реализирано март и мај 2010 година на студентите од Русенскиот Универзитет "Ангел Кнчев". Беа анкејтирани 142 студенти (94 женски и 48 машки) со просечна возраст од 22,14 години. Од анкејтираниите студенти, 30 беа кинезиотерапевти, 30 технички специјализирани, 26 од основната училишна педагогија, 12 специјализирани по право, 10 од управување во стопанството и други. Применети беше анкејтен лист, чија структура за интервјуирање на интервјуираните студенти беше на модален принцип од 7 модули. Анкејтниот лист содржеше: факторски дел, здравствен стаус, здравствена култура, физички работоспособности и квалитетите за идната професија, економски претпоставки за занимавање со спорти на студентите од Русенскиот универзитет и активностите на студентите за безбедности и кризни ситуации. Паралелно со анкејното истражување, за потребите на клиничката практика беа применети мерни листи за антропометриски показатели за апарати за движење, за срцево-сировниот систем, системот за дишење и други системи. Во истражувањето е утврдена мотивацијата на студентите за здрава исхрана, односот кон ризичните фактори, пушењето, и злоупотреба на алкохолот. Врз основана податоциите, наставниците од катедра "Физичко воспитување и спорти", во Русенскиот универзитет сметаат дека има можности да се осовременат наставните програми.

Клучни зборови: *анкејтен лист, физичка работоспособност, антропометриски мерења, тестови, мотивација, кинезиотерапија*