ANALYSIS OF THE PROFESSIONALLY SIGNIFICANT QUALITIES IN REHABILITATION THERAPISTS `STUDENTS

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ABSTRACT
The curriculum for Rehabilitation Therapy students at the Medical College, Plovdiv, is focused on one major goal – to train students able to provide professional and competent health care. The final result from the course of education and training should include the mastering of competences constituting a combination of knowledge, skills and attitudes. **Purpose of the study:** A study of the professionally significant qualities in the professional qualification of rehabilitation therapists in the process of their education and training in Medical College – Plovdiv. **Material and methods:** The subjects of the survey are first, second and third year students majoring in Rehabilitation Therapy at Medical College – Plovdiv – a total of 125 respondents. **Results and Discussion:** Over 40% of the respondents claimed to possess the said qualities and skills to a large extent, and 39.70% were of the opinion they had the investigated qualities and skills to an exceptionally high extent.

KEYWORDS: professionally significant qualities, Rehabilitation Therapy students at Medical College.

INTRODUCTION
The curriculum for Rehabilitation Therapy students at Medical College, Plovdiv, is focused on one major goal – to train students able to provide professional and competent health care. This is subjected to one common aim: taking into account students individual abilities and interests, to provide training so as to develop professional competences and skills adequate to the contemporary requirements for the professional development in the major. Students
develop professionally significant values, attitudes and abilities so as to be able to cope with the challenges of the dynamically changing reality in Bulgaria and the world.

The professions in the field of "Health care" are being constantly developed and refined, resulting in a change of their philosophy. All this is in line with the European directives for "regulated professions" and changes the image and social significance of the profession of health specialists.\[6\]

Upon completing their education, rehabilitation therapists have to have the necessary knowledge and professionally specific skills which will enable them to perform their functions in maintaining patients’ health, performing prophylaxis, restoring impaired functions and overcoming the consequences of various diseases and disorders, and contributing to the re-adaptation of the patient.\[4,7\]

The final result from the course of education and training should include the mastering of competences constituting a combination of knowledge, skills and attitudes in the following spheres

- **General skills** – communication skills, linguistic literacy, the ability to use information technologies and to work in a team, as well as attitudes to constantly further their medical education and to strive for self-improvement.\[9\]

- **Thorough knowledge in fundamental scientific fields** – the humanities, medical and biological sciences, clinical and specialized training.

- **Specific professional skills**
  - knowledge of and implementation of the methods and means of kinesitherapy and the preformed physical factors underlying the Rehabilitation Therapy curriculum;
  - performing electrical and light physiotherapeutic procedures prescribed the specialist physician, observing the respective safety rules and requirements;
  - performing various measurings and tests which facilitate the accomplishment of kinesiological and pathokinesiological analysis and assessment of the functional status of the patient.

- **Knowledge of specific conditions** – the healthcare system; the hospital environment; ethical, deontological and legal regulations and provisions; the role of the other professionals on the multi-disciplinary team.
These objectives are achieved through the curriculum, by combining traditional and modern forms of education and training, and adequate academic environment.

The mental readiness of students who have chosen the profession of the rehabilitation therapists to learn and train, to a certain extent depends on the development of qualities and competences typical of the profession.\textsuperscript{[12,8,12]} The competences are the individual skills and abilities to perform the specific job. When skills correspond to knowledge, they constitute the needed professional qualification. The job of the rehabilitation therapist is characterized by enhanced requirements to the cognitive, perceptive, sensory-motor and intellectual activity.

**Purpose of the study:** A study of the professionally significant qualities in the professional qualification of rehabilitation therapists in the process of their education and training in Medical College – Plovdiv.

**MATERIAL AND METHODS**

The subjects of the survey are first, second and third year students majoring in Rehabilitation Therapy at Medical College – Plovdiv – a total of 125 respondents. In the conducted study we investigated and monitored the self-assessment of students regarding their mastering of professionally significant qualities and their impact on the professionalization indicators\textsuperscript{[1,3]}. The survey was carried out in the academic 2014/2015 at Medical College – Plovdiv. For the purpose of collecting primary statistical data, a direct group survey was employed and the data was processed using modern statistical methods.

**RESULTS AND DISCUSSION**

The results show that none of the students reported not possessing any of the surveyed qualities or skills. Only 2.12\% of them stated they possessed them to a certain extent. Over 40\% of the respondents claimed to possess the said qualities and skills to a large extent, and 39.70\% were of the opinion they had the investigated qualities and skills to an exceptionally high extent.

When analyzing these data, we have to take into account the probability of social willingness and unrealistically enhanced self-esteem, as well as the lack of experience and sufficient professional knowledge, which could serve as a criterion for realism in the opinions of a big part of the respondents of the degree to which they possess the professionally significant qualities. Regardless of the extent of their sound, realistic judgment, it can be expected that
the self-assessment of students as regards their professionally significant qualities affects the process of the professional development of the future specialists.

The obtained results concerning the extent to which students possess the main groups of professionally significant qualities and skills can be grouped as follows.

1. Manipulation qualities and skills – \( \bar{X}_{av}=2.43 \);
2. Managerial competences and qualities – \( \bar{X}_{av}=2.63 \);
3. Cognitive qualities and skills – \( \bar{X}_{av}=3.13 \);
4. Emotional and volitional qualities and skills – \( \bar{X}_{av}=3.25 \);
5. Social and psychological qualities and skills – \( \bar{X}_{av}=3.25 \).

The \( T \)-criterion shows statistically significant differences between the manipulation and:
- Cognitive qualities and skills (\( T = 8.70; p < 0.05 \));
- Emotional and volitional qualities and skills (\( T = 9.53; p < 0.05 \));
- Social and psychological qualities and skills (\( T = 10.91; p < 0.05 \));

As well as between the managerial and:
- Cognitive qualities and skills (\( T = 4.83; p < 0.05 \));
- Emotional and volitional qualities and skills (\( T = 5.34; p < 0.05 \));
- Social and psychological qualities and skills (\( T = 6.45; p < 0.05 \)).

It is striking that the self-assessment of the professional qualities and skills that should be mastered in the process of education and training (manipulation skills and managerial competences) is relatively lower as compared with the self-assessment of the personal qualities (cognitive, emotional, volitional, social and psychological qualities and skills), to which people are generally more sensitive, and to which they exhibit a greater social willingness and lack of realistic judgment, as people associate such qualities with their overall self-esteem, prestige and importance to others.

The profession of the rehabilitation therapist requires a certain range of mastered **manipulation qualities and skills** for the high-quality involvement in the process of treatment of the patient. Fig. №1.
The classification of manipulation skills into levels is carried out on the basis of the distance between the average values, although the T-criterion between the variables does not indicate statistically significant differences.

The Rehabilitation Therapy majors rated as possessed by them to the highest extent skills connected with massage techniques ($X_{av.} = 4.22$). These are basic skills mastered by rehabilitation therapists. In the course of training, these skills are improved so that specialists will be able to provide highly professional massage techniques in cases of various conditions. The overall data on the mastering of manipulation skills by the surveyed students showed that most replies are concentrated around the middle and high end of the scale.

The competences to measure, investigate and record vital signs are developed in the first year of studies of Rehabilitation Therapy majors ($X_{av.} = 3.99$). These are basic competences for the work of the rehabilitation therapist, and vital for determining the rehabilitation potential.
These are also some of the first professional competences, the mastering of which contributes to the professional self-esteem and confidence of the students.

Functional tests require knowledge, competences and careful attitude to patients. The surveyed students stated they possessed to a high extent the skills needed to perform tests of muscular strength, muscular weakness, and functional tests (Xav. = 3.79).

The self-assessment of the students as regards their competences concerning the administration of medicines is also high (Xav. = 3.68). During their practice; training in a real hospital/clinic environment, together with and under the supervision of their instructors, students administer medicines in accordance with the doctor’s prescription, while performing physiotherapeutic procedures. This has a strong positive effect on students’ professional self-esteem and confidence, and stimulates them to take an active part in the rehabilitation process.

As early as their first year of studies, students develop the skills needed to perform different types of physiotherapy. During their tutorials, practical and clinical training, students demonstrate their interest in and desire to master physiotherapeutic procedures. The results show that 89.36% of the surveyed students possess the necessary competences.

In their professional work, rehabilitation therapists also perform educational activities aimed at patients and their families. The students stated they possessed these skills (Xav. = 3.38) to a significant extent. In order to be able to perform such activities, they have to have sound medical training, because the educational task of rehabilitation therapists involves training patients to perform kinesitherapeutic schemes on their own, so that they could be independent and socially active despite their condition or despite having sustained a permanent disability, to observe an appropriate exercise routine.

The rehabilitation therapist is a full member of the therapeutic team performing the treatment of the patient. In certain rehabilitation activities, the rehabilitation therapist may have an independent function, and in others their role may be subordinate in which they administer physiotherapeutic procedures prescribed by a physician. The results show that students are less confident they possess the respective skills (Xav. = 3.36).

One of the main tasks of healthcare specialists is to raise the health awareness of the population in order to promote and ensure a healthy way of life. The surveyed students
reported having mastered the skills needed provide health education to a moderate extent (Xav. = 3.32). This result is acceptable because students are still in the process of their own training and probably feel uncertain of their own competences to implement and perform high-quality prevention of various diseases.

One of the tasks of rehabilitation therapists in their independent work is to determine a kinesiological and pathokinesiological functional diagnosis. The purpose of determining a functional diagnosis is to improve the quality of rehabilitation procedures. Students are not confident enough in their ability to determine a diagnosis (Xav. = 3.17) and to classify the healthcare needs of the patient, because they do not always manage to focus their attention correctly to the objectives and tasks of the rehabilitation process within the scope of their competences.

The job of the rehabilitation therapist in the department of Orthopedics and Traumatology calls for specific skills and qualities, which not all students manage to develop and master to a high extent in the process of training. The specific medical functions and manipulations in a clinical environment do not appeal to all students, and are therefore mastered to different extents (Xav. = 3.11). These functions require strict adherence to the aseptic and antiseptic rules (Xav. = 2.80), knowledge and ability to use modern means and methods of treatment of wounds. The self-assessment of the respondents ranges around the middle section of the scale.

The analysis of the obtained results show that the self-assessment of the surveyed as regards their competences to work with physiotherapeutic apparatuses and equipment (Xav. = 2.91), to perform physiotherapeutic procedures (Xav. = 2.82), to implement highly specialized rehabilitation techniques and post-isometric relaxation (Xav. = 2.77) and competences to apply special methods such as those of Bobat, Kabath and Vojta (Xav. = 2.69), is lower. These competences are developed in the process of training, but they are adequately mastered in the process of work.

Also low is the self-assessment of the surveyed regarding their skills to perform mobilization of the peripheral joints (Xav. = 2.58) as well as manual therapy (Xav. = 2.37), because these are high-risk manipulations, delicate for the patient, which, if not performed correctly in accordance with all the rules, they may lead to undesired complications. During their clinical training and pre-graduation practice, not all students manage to perform and practise them in
real clinical conditions. The lack of confidence of the surveyed is due to the fact that although they have acquired the necessary knowledge, they lack adequate practice in real conditions. The Pearson correlation analysis shows that the following manipulation skills and qualities of third-year students are more developed than those of first-year students.

CONCLUSIONS

During their training, rehabilitation therapists prepare to perform their professional functions:

1. To take part in performing complex rehabilitation under the guidance and supervision of a physician, of children and adult patients suffering from various diseases and conditions;

2. To participate in the re-socialization and re-adaptation of patients and people sustaining permanent disabilities; to train them to perform their usual everyday activities and functions;

3. To take an active part in preparing and implementing programs and campaigns for prophylaxis and health promotion.

The role of the teacher has been changed from lector to moderator innovator and experimenter permanently enhancing the students’ professional competences and qualification.\[5\]

The modernization of the educational system and the dynamic innovation processes in medical education make more topical the problem of the formation of medical professionals, having not only professional knowledge and skills, but certain qualities and abilities that are relevant to the medical profession.

The strongest influence on the assessment of the overall organization and conduct of the educational process in higher medical schools is exerted by the teachers with their professionalism, competence, their ability to motivate students to have clear, objective and fair evaluation criteria, the ability to explain and provide an interactive learning environment, scientific knowledge and communication skills.\[10,11,14\]

The developed professional competences allow rehabilitation therapists to make successful careers in different fields of the medical practice, and thus the main purpose of medical training is achieved – to train students at the Faculty of Health Care so as to meet the needs of health care.
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