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Effect of Innovation in Training on the Motivation of Students for Practical Work

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Abstract

The good professional training of students majoring in Medical Rehabilitation and Ergotherapy at the Medical Faculty and Rehabilitation at the Medical College is an integral part of the traditions and modern educational policy of the Trakia University (TrU) - Stara Zagora. It is achieved through a first-rate theoretical and practical training in compliance with European requirements and contemporary accomplishments in the field of rehabilitation science and medicine. In this study, we aimed to: Investigate the effect of innovations in kinesitherapy and ergotherapy training on the students' motivation for practical work; Investigate the opinion of mentors from practical training bases about the co-operation in rehabilitation teams. Material and methods. A large-scale anonymous survey was carried out with 285 students majoring in Rehabilitation, and 63 students majoring

in Medical Rehabilitation and Ergotherapy at the Trakia University - Stara Zagora, as well as with 50 mentors from practical training bases from 2007-2018 on 4 stages. Results and discussion. A strong positive correlation between the motivation and satisfaction of students with the training was established ($R=0.61$; $p<0.05$). The good academic motivation of students is a factor determining their desire for study and active involvement in clinical practice. The relative shares of positive answers of students (58%) and mentors (70%) with respect to the team work ($U<1.96$; $\alpha<0.05$) indicated that there was no statistically significant differences among respondent groups. This provides evidence about the very good co-operation in the rehabilitation team and guarantees the formation of appropriate professional skills. Conclusions: The analysis of survey results showed that both groups of respondents (students and mentors) were satisfied with their cooperation; The application of acquired body of knowledge- theoretical and practical skills in the clinical training bases under the supervision of mentors and the academic staff from the Trakia University certifies the quality of students' training; The consolidation and improvement of professional competence of future rehabilitation specialists guarantees their success in a real working environment; The motivation of students is an essential factors for improvement of tuition quality through the five key elements of academic motivation; The application of innovative elements in kinesitherapy and ergotherapy training is an additional stimulus for the active involvement of students in the learning process and clinical practice; The good professional level and positive personal traits of students are achieved through active participation of future graduates in both health care majors in the practical training.

Keywords: motivation, professional training, kinesitherapy, ergotherapy, professional skills, clinical practice.

Introduction

The appropriate organisation of training promotes the positive attitudes to learning, stimulates the cognitive development so that once formed, the interest to learning turns to be a real intrinsic factor for improvement of the quality and efficient of training (Stoyanova D. 2009).

Primary and secondary motivation occur at different stages of health care professional training and they are influenced by a variety of factors which could be generally allotted into three groups (Turnyova B, T. Cherkezov, 2009). The first group of factors includes the individual characteristics of students associated to their personal features, educational needs and learning determination; the second group of factors reflects the influence of the educational environment on the behaviour of students in relation to didactic technologies and the connection teacher-student, and the socio-psychic climate in the educational establishment; the third group of factors deals with effects of social and economic environment on students, with the social status of practicing rehabilitation specialists.

The motivation is perhaps the most important factor which the teachers should use to improve the quality of tuition (Hassan I., T. Bhat, 2014). A number of cross-disciplinary theories have been advanced to explain motivation. Despite that each theory contains some truth, none has proposed an adequate explanation of motivation. Human beings and students in particular are in fact complex individualities with complex needs and desires. The five key elements of students' motivation are of utmost importance. They comprise: students, teachers, course content, tuition methods and approach to students; the effects of the environment (Williams K., Williams, 2011). All these elements are in constant interaction: the role of the student in education is essential and it should go beyond the framework of the traditional idea about the student as a client or recipient of knowledge; the role of the teacher is to use innovative training techniques; to encourage students using innovative technologies, to offer interesting and amusing training; the

communication with students requires a lot of efforts both within and out of the academic environment; every student should feel himself special; the content should be developed and adapted to educational goals: students should succeed and make choices, the formation of professional competence, creativity and critical thinking, introduction of innovative and modern learning methods should be promoted; this is the method of content presentation i.e. the used training approach. Two principal strategies for increasing of student's motivation are known: providing conditions within the academic environment for optimum learning and engagement, and helping the students to develop tools for self-regulation and self-preparation, the environment includes the role of the family and society in motivating students and in encouraging their desire not only to learn, but also for volunteering and mutual aid.

An important element of clinical training is the collaboration of students with mentors, which play the role of supervisors in rehabilitation teams. These shared efforts are crucial for improvement of practical training quality, the personal and professional progress of students. To this end, the University of Birmingham has organised a special training of mentors from clinical bases for their acquaintance with academic standards, in order to be able to assist in the training of students, to monitor their clinical involvement and desire for work (Williams K., Williams, 2011).

Successful mentorship is not a matter of special methods, intentions or actions, but above all, the attitude of the mentor to its profession and to students. The mentor is a central figure during the pre-graduation internship of rehabilitation students. Its main objective is to help the mentees in the process of medical profession learning, to acquaint them with the postulates and conditions needed to provide high-quality health care, the faults and lapses in the process of treatment and the ways to overcome them. Mentors should also help the formation of skills,

habits and ethical attitude to the patients and his relatives in students (Paskaleva R. 2012).

Purpose and objectives of the study

In this study, we aimed to: Investigate the effect of innovations in kinesitherapy and ergotherapy training on the students' motivation for practical work; Investigate the opinion of mentors from practical training bases about the co-operation in rehabilitation teams.

Material and methods

A large-scale anonymous survey was carried out with 285 students majoring in Rehabilitation, and 63 students majoring in Medical Rehabilitation and Ergotherapy at the Trakia University - Stara Zagora, as well as with 50 mentors from practical training bases from 2007-2018 on 4 stages. First stage – academic year 2007-2008. The survey comprised 120 students and mentors – 85 Rehabilitation students from the Medical College, Stara Zagora and 35 mentors from the practical training bases in Stara Zagora before the implementation of innovative elements in training (first study group). Second stage – academic year 2009-2010. This stage encompassed 150 Rehabilitation students after the implementation of innovative elements in training (second study group). Third stage – academic year 2010-2011 – pre-graduation internship. At this stage the survey included 50 Rehabilitation students (third study group) and 20 mentors from the practical bases (second study group). Fourth stage – academic year 2015-2016. This stage of the survey was performed with the participation of 63 students majoring in Medical Rehabilitation and Ergotherapy at the Medical Faculty (fourth study group). For the survey individual questionnaires different for students and mentors were used. The results were submitted to statistical analysis.

Results and discussion

A strong positive correlation between the motivation and satisfaction of students with the training was established ($R=0.61$; $p<0.05$). The good academic motivation of students is a factor determining their desire for study and active involvement in clinical practice. The relative shares of positive answers of students (58%) and mentors (70%) with respect to the team work ($U<1.96$; $\alpha<0.05$) indicated that there was no statistically significant differences among respondent groups. This provides evidence about the very good co-operation in the reha

Analysing the results obtained in the four study groups (Fig. 1) we established that positive answers predominated, on the average 63% for the entire survey period. There were substantial differences in the partial satisfaction of students, with 33% of respondents being not entirely satisfied and demanding a more quality training.

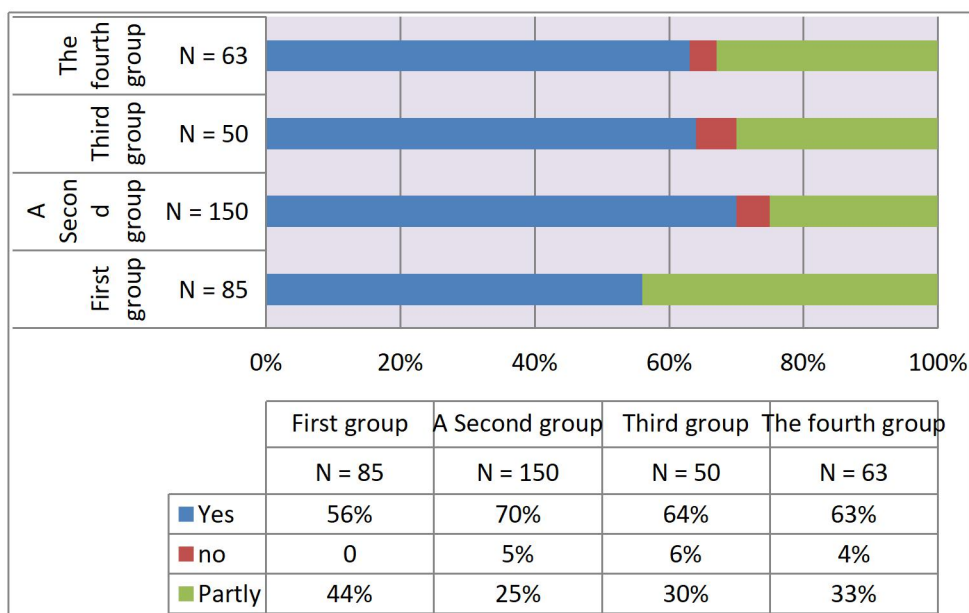


Fig. 1. Satisfaction of students with the training offered at the Trakia University

The results identifying a partial dissatisfaction with the educational system are important and have a positive effect as they reflect the improvement potential of a system and its capability to be more and more up-to-date and useful for students.

This lack of satisfaction is associated with specific recommendations of students for improvement of training quality with special emphasis on the mentor-mentee relationship and work with real patients.

In the next stages of the survey, in line with the changes in curriculum to reflect the new unified state requirements for the professional bachelor degree in Rehabilitation, the relative proportion of positive answers increased, with greatest proportion of positive answers in the second study group (70%), followed by the third (64%) and fourth group (63%). These data indicate clearly that the quality training of students from the two majors in the Trakia University - Stara Zagora was at a high level and provides not only theoretical knowledge, but also practical skills allowing for development and professional realisation. This determines also the training quality, which according to most of respondents was good and completely in agreement with their concepts for a high-quality training.

The correlation between the motivation and satisfaction of students with the level of training was positive and strong ($R=0.61$; $p<0.05$). The good motivation of students enrolled in these majors is a factor determining the quality of tuition and their active participation in practical work.

An innovative element in the training of students from both majors is the inclusion of art therapy in the curriculum of kinesitherapy and ergotherapy courses. Art therapy serves for mobilisation of creative potential, distracts the patient and helps its active involvement in recovery through the different forms of art (Popov T. 2005). The students from the first study group were not trained in art therapy and therefore, data from this group are not available.

Welcoming the innovations in training, the students approved this approach (Fig. 2) with average of 80% of respondents from the three groups which believed that art therapy was useful in the treatment and recovery of children and adults. The other 13% assessed art therapy as partly useful and 7% denied its inclusion in the curriculum.

The application of acquired knowledge, practical skills and competence in training bases together with mentors and the entire rehabilitation team is of significant importance (Paskaleva R. 2012).

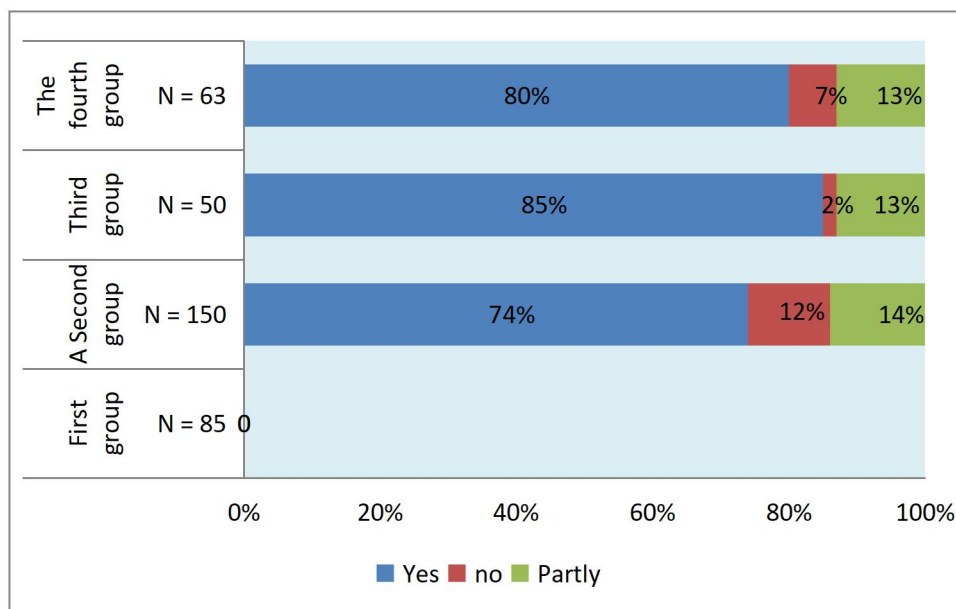


Fig. 2. Usefulness of art therapy in the training of students

During the last years, art therapy is increasingly approved and used in the therapy of functional nervous system disorders in children with depressive or aggressive behaviour, capricious and obstinate children, exhibiting easy irritability, fear etc. (Popov T., 2008). In them, various art therapy techniques are used under the form of role-playing games for engagement of their attention and for stimulation of their neuro-psyhic and physical development.

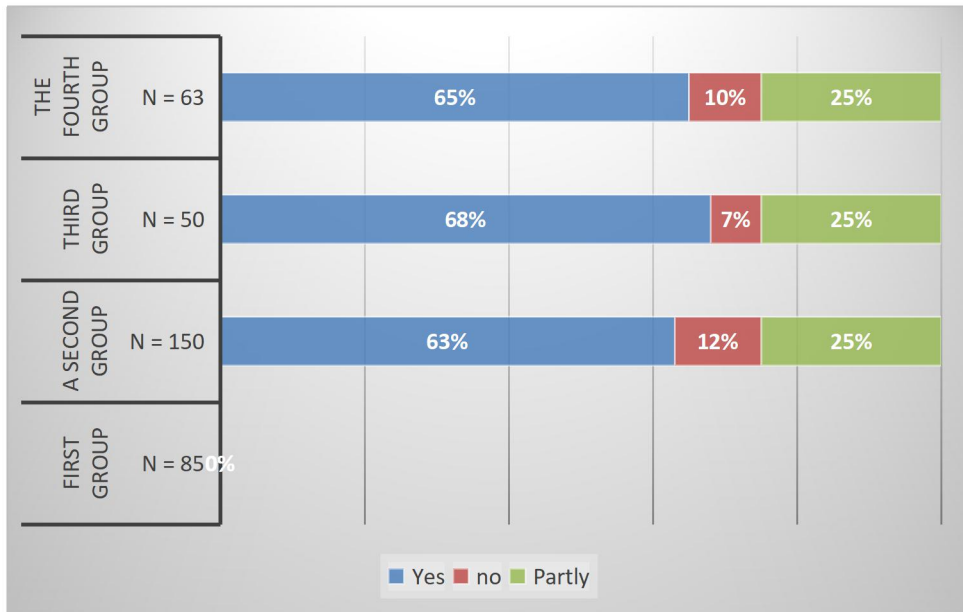


Fig. 3. Implementation of art therapy in the clinical practice

During the clinical practice and pre-graduation training, students participate in different art therapy techniques in specialised centres for children - Home for medical and social care for children, Day center for children with mental retardation. There, conditions for utilisation of art therapy during the work with children have been created (Paskaleva P. 2011).

The opinion of students with respect to the work with children in these bases is shown on Fig. 3. More than half of respondents from the four groups (65%) have confirmed the usefulness of art therapy in the clinical practice with children and adults. This method stimulates the psycho-emotional development of children, locomotor activity and attracts their attention. Only a small part of respondents (10%) were not convinced with the final result, and 25% partially approved the thesis. These results clearly indicated the positive attitude of students to innovations and their implementations in practical training bases.

The proper analysis of results requires evaluation of the correlation between the application of art therapy in kinesitherapy and ergotherapy training and the

usefulness of art therapy for clinical practice, which was strong and positive ($R=0.56$; $p<0.05$). Theoretical knowledge in art therapy guarantees the high-quality practical training. Their application in clinical rehabilitation practice stimulates the recovery in children and adults (Paskaleva R. 2012; p.56).

Ergotherapy is an active kinesitherapy approach using a specially selected purposeful mental and labour activity (Koleva, I, 2009). It is applied in practical training bases for selection of aids needed for walking and activities of daily living (ADL) education. The aim is to focus the attention of the patient on the results from the work. This method is applicable in rehabilitation, resocialisation and when necessary, retraining of the patient (Koleva, I., 2008).

The correlation analysis of the relationship between teamwork and determination of patient's rehabilitation potential by students was strong and positive ($R=0.78$; $p<0.05$). The teamwork among students, mentors, physicians and other specialists provided opportunities for interaction and improvement of the professional competence of undergraduates. They were aimed at determination of patient's rehabilitation potential, proper selection of therapy means and elaboration of a rehabilitation programme.

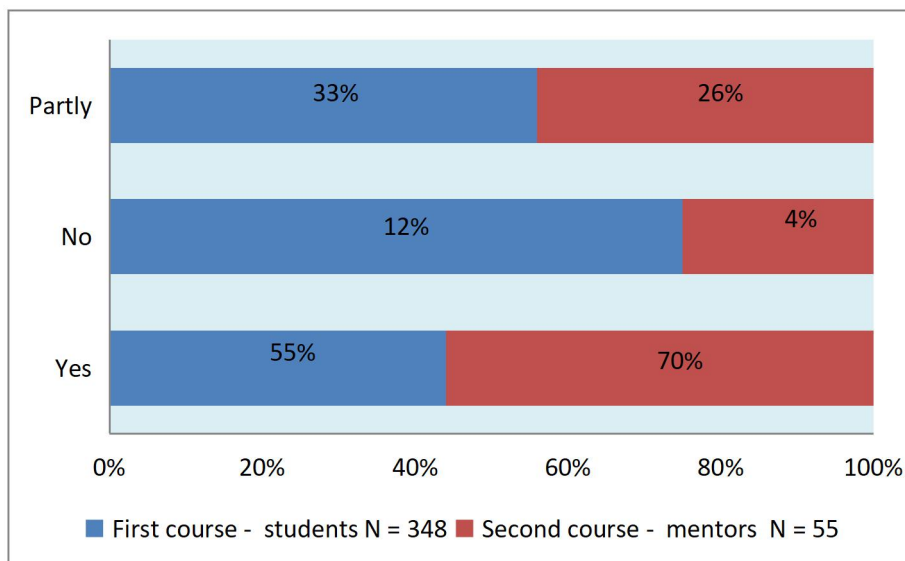


Fig. 4. Comparative analysis between mentors and students related to teamwork

The aim of the rehabilitation team was prevention, rehabilitation and complete recovery of patients with different groups of diseases, alleviation of the state of terminally ill patients and assisting patients with disabilities (Paskaleva R. 2012). Mentors are essential for the work of students in a team. The comparative analysis of the surveyed groups on the issue of teamwork showed few differences in the attitudes of two groups of respondents (Fig. 4).

The proportions of students (59%) and mentors (70%) that gave positive answers about the teamwork ($U < 1.96$; $\alpha < 0.05$) *proved the lack of statistically significant difference between the respective relative shares*. This is a very good testimonial for teamworking of students and mentors.

The analysis of results from both groups is important for the practice. *The correlation analysis evidenced a strong positive relationship between team and improvement of professional competence during the clinical training for mentees and mentors* ($R = 0.69$; $p < 0.05$). For both groups, the teamwork succeeded to improve the professional competence.

According to some authors (Bennett S, Bennett J. 2000; 171-180) the utilisation of methods and practices based on scientific evidence and positive experience in clinical practice is particularly important. They should be used for expanding the knowledge and skills in the field of rehabilitation science and ergotherapy. This results in additional ease in the work with patients and increases its efficiency.

Conclusion

The application of acquired body of knowledge- theoretical and practical skills in the clinical training bases under the supervision of mentors and the academic staff from the Trakia University certifies the quality of students' training; The motivation of students is an essential factors for improvement of tuition quality through the five key elements of academic motivation; The application of innovative elements in kinesitherapy and ergotherapy training is an additional

stimulus for the active involvement of students in the learning process and clinical practice.

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