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Personalization Of The Learning Process As A Means Of Formation Of Professional Competence Of Future Specialists In Physical Therapy.

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ABSTRACT

To improve the level of formation of professional competence, it was substantiated and experimentally proved the theoretical basis of pedagogical conditions for ensuring the personalization of the learning process of future specialists in physical therapy within studying the disciplines of the medical - biological cycle, namely: ensuring the purposeful disclosure of the professional and personal capacity of each student; stimulating of internalization of socially significant values by future specialists in physical therapy; organization of training of study and professional collective activity of students on the basis of cooperation as the mean of their accumulation of experience of their ideal representation of themselves in the life of other people.

Keywords: Professional competence, personalization of the learning process of future specialists in physical therapy, personalization of student, teaching conditions.

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INTRODUCTION

The purpose of study is, first of all, the inclusion of the content of learning in the context of solving life problems, creating an intellectual personality space of future professionals. According to this, the knowledge and skills from the basic goal in traditional study process transformed in modern terms into the development tool of a person that learns [Shaposhnikova, 2012]. Competency approach - this is an attempt to align education and the need for the labor market into conformity, to smooth the contradictions between educational and professional activities, and competency education is aimed at achieving the intended ultimate goal of education - competencies on the basis of which competence is formed [Ivany, 2015; Levchenko, 2015; Soltyk, et al. 2017]. Professional competence of specialists of sociological profession is an integrative professional personal formation in which the internal resources of man, his personal qualities and abilities are seen as the source and criterion of efficiency of professional activity in the system "man - man " [Danylevych, Romanchuk, Hrybovska, & Ivanochko, 2017; Levchenko, 2015]. The urgency of the identified problem is due to the need to overcome the contradictions between: The requirements for the level of training of students in higher education institutions that train specialists in physical therapy, and the actual state of organization of the process in these schools; Declaring the necessity of development in future specialists in physical therapy professional competence and a low level of its formation in practice; The need to ensure the personalization of the learning process of students - future specialists in physical therapy and the lack of scientific substantiation and scientific and methodological support for the implementation of this process. The need of individual in a personalization ted is essential for the formation of other people's ability to recognize their personality [Rogova, 2006; Solonina, 1997; Shaposhnikova, Korsun, & Suvorova, 2014]. Ensuring such recognition, a person begins to influence the existence of a certain community of people, which he belongs to. Personalization can reveal the essential personality properties of a person in the process of interaction with other people [Rogova, 2006; Shaposhnikova, Korsun, & Suvorova, 2014; Tkacheva, & Shaposhnikova 2007]. The individual's need for personalization becomes an important prerequisite for their development as a person whose uniqueness is welcomed by the people who surround him. Personalization of learning process involves such its organization, which provides effective personalization of each of its subject. Under personalization is meant the personal growth of the student, which manifests itself in his desire to organize interaction with other members of society and to ensure their own contribution to their personal development. [Shaposhnikova, Korsun, & Suvorova, 2014].

Purpose of research

To prove scientifically and verify experimentally the pedagogical conditions of providing personalization of the learning process of future specialists in physical therapy to improve their professional competence.

METHODS AND ORGANIZATION OF RESEARCH

Participants. At studying of providing personalization of the learning process of students, a survey was conducted and was attended by 100 students and 15 graduates of Kharkiv State Academy of Physical Culture. In ascertaining and forming stages of the experiment were involved students of experimental (114 persons) and control (112) groups of Kharkiv State Academy of Physical Culture during studying of disciplines of medical - biological cycle.

Procedure (organization of the study). For checking the hypothesis it was used a set of research methods such as: theoretical are: analysis of modern literature; empirical: observation, questioning, testing, conversations, studying the products of educational work of students; pedagogical experiment; statistical methods for determining the reliability of the results of experimental work.

RESULTS

At studying the conditions of personalization of the learning process of 100 students and 15 graduates of Kharkiv State Academy of Physical Culture, it was found that a significant proportion of university graduates and students of physical training are not aware of their own accountability for their success in life, the ability to self-realization, do not seek to actively engage in self-improvement, that does not allow them to achieve

fully self - realization as individuals and professionals. This confirmed the need to provide targeted insurance of personalization process of training for specialists in physical therapy.

According to the purpose of the study were defined criteria and corresponding indicators which allow to diagnose the current state of personalization of students, namely motivational - value (the character of motives of professional – personal self-improvement, revealing the desire for personalization on the basis of socially significant values); cognitive - active (levels of assimilation of knowledge and the formation of skills of a professional -personal nature); individual - personalized (the level of formation of professional personal skills and revealing of the ability to carry out the reflection of process of personalization). According to these criteria and indicators there were defined three levels of personalization of future specialists in physical therapy (high, average and low) and made their content.

Carried out at an ascertaining stage diagnosis in experimental and control groups shows insufficient formation of motives, values of knowledge, skills needed for the formation of professional competence of future specialists in physical therapy.

The analysis of theoretical principles of research, modern approaches to the professional training of future specialists in physical therapy, the results of the statement of the experimental stage allowed to ground pedagogical conditions that ensure the personalization of the process of their training.

The first pedagogical condition is defined a purposeful disclosure of professionally –personal potential of each student. Taking into account the ideas of A. Solonin this process was organized in the following phases: adaptation, labilization, acmeologization [Solonin, 1997].

At adaptation phase students were involved in educational activities of the reproductive type. Creating by teachers situations of success during the implementation by future specialists in physical therapy typical tasks contributed to reveal their own professional-personal potential in the formation of their professional competence. At the first stage were widely used different methods and forms of study: exercise, game techniques, individual consultations on implementation of independent tasks, etc. that provided awareness of the meaning of future career and prospects of professional and personal development.

The second stage - labelization - envisaged the creation of conditions for positive internal changes of each student on the way of his professional and personal formation through the introduction into the educational process of various methods and forms of training of a productive type (binary and problem lectures, e- learning, making structural and logical schemes for various topics, development of individual integrated situational tasks of professional orientation, etc.). In turn, this appropriate created psychological - pedagogical conditions for ensuring the desired changes in behavior and activity of future specialists in physical therapy that will positively affect their relationships with other members of the educational process.

At acmeologization stage it was ensured the highest level of personalization of the learning process of future specialists in physical therapy based on stimulation of manifestations of their acme during interaction with others. At this stage, students were involved in the implementation of independent work of creative nature and other types of educational activities. To ensure personal development towards achieving "acme" also contributed trainings that were oriented on correction of negative phenomena in the professional formation of future specialists in physical therapy, in particular, to overcome various problems while learning subjects of medical -biological cycle, restore physical, mental and spiritual strength during training. These trainings helped students to give up negative stereotypes in educational failures, extend the range of their activities in different educational and professional situations, to improve the process of self-management as a dynamic system, constantly enrich the arsenal of their own methods of self-development, more adequately determine the prospects for their further personal development.

The second pedagogical condition - stimulation of internalizations of socially significant values by future specialists in physical therapy - envisaged the transfer of socially meaningful values to the level of personal beliefs of each of them. This allowed each student to perform successfully his personal based on socially important values, engage to their dominant values others. The realization of this condition was based on three groups of values: universal, professional and personal.

To master by future specialties in physical therapy professional values during lectures and practical training, teachers encourage students to clearly define their position as for the problems raised with a focus on certain professional values, awareness they are responsible for the consequences of their decisions.

Students' internalization of personal values provided an individual trajectory for the growth of students, on the one hand, as future specialists in physical therapy, and on the other - as a unique personalities, each of which is characterized by only his inherent qualities, life goals and needs. To provide this, teachers paid considerable attention to organizing individual work with students. Specifically, each of them was given an assistance in development and realization of program of professional and personal self-improvement based on individual aspirations and interests.

Third pedagogical condition - organization of educational and professional collective activity of students on the basis of cooperation with the aim of their accumulation of experience in the ideal representation of their own person in the life of other people. Providing an atmosphere of educational cooperation created favorable conditions for the development of students' creative thinking during a mutual search for optimal solutions for tasks, creation at them extra motivation for learning, the establishment of friendly relations with other students, self-determination and self-realization of each student, formation of their abilities to see themselves from the sides of other people, the formation of students' subjectivity, providing a sense of comfort.

During the implementation of this condition, students were involved in the collective implementation of projects of various types: educational, educational, research and scientific researches. The development of educational project included training and solution of learning tasks within the compulsory program material. In preparation of educational-research project were taken into account individual needs and professional and educational interests of students, including the themes of diploma and their master works. Execution of scientific and research projects was closely linked with various forms of scientific and experimental work of students, to which they were involved on a voluntary basis. Thus, future specialists of physical therapy prepared reports for scientific, practical conferences and scientific seminars, participated in student research contests and so on.

During organization of training - professional collective activity of students also took a significant place other extracurricular activities of students, for example, it was conducted vocational work among secondary schools, presentation of certain educational institutions that train future specialists in physical therapy. It provided interpersonal informal communication of students with pupils that created great opportunities for self-realization of each individual.

In order to test the hypothesis, in practice, the forming stage of the experiment was organized. Thus, in the experimental groups providing of personalization of process of training of future specialists in physical therapy was carried out through enforcement of educational conditions in the control groups this process occurred spontaneously.

For diagnosis the first indicator (the nature of the motives of a professional and personality self-improvement) motivational - value criterion were used different methods: observation, interviews, questionnaires, and modified by us method of Attractiveness of the profession by N. Kuzmina and A. Rean.

According to the obtained data in the experimental groups after the experiment, the number of students who experienced persistent motives of personal-professional nature increased by 22% and the number of students with unexpressed motives decreased by 9 %. In the control group the number of students with persistent motives of specified type only increased by 4% and unexpressed motives of students decreased by 6%. Consequently, we see that, according to this indicator, more intensive positive dynamics occurred in experimental groups.

To study the dynamics of revealing desire for personalization on the basis of social significant values as the second parameter of motivational - value criteria were used such techniques and methods as observation, interviews and so on. Also in the course of the experiment with the aim of identifying at students the desire to personalize on the basis of social - important values were used modified by us method of value orientations by M. Rokich.

These ranked scales in experimental and a control group at the stage of ascertaining experiment, despite some differences in the percentage ratio, significantly between themselves did not differ. However, after conducting a formative experiment between the responses of students of experimental and control groups significant differences appeared.

Thus, in the experimental group first three places took: personal development (self-realization, self-statement, self-knowledge), professional (physical therapy) and active life (completeness and emotional richness of life). In the control group, the first three priority places were freedom, health and active life (completeness and emotional richness of life).

These values that occupied a dominant position in the hierarchy of personal values of students of experimental group, show their reorientation in the direction of their own personalization.

As showed the results of the study on providing personalization of process of training of future specialists of physical therapy according to the second indicator (detection of desire to personalize on the basis of social - significant values) of motivational - value criteria, the number of students of experimental groups that regularly showed desire to personalize on the basis of social - significant values after the experiment increased to 19%, in contrast to similar dynamics in the control group, which is only 3%. The number of people in experimental groups, which did not show a desire for personalization on the basis of socially significant values, decreased by 12%, and in control group - only by 1%.

Diagnosis of changes for the first indicator (assimilation at students knowledge of professionally - personal character) of cognitive - active criterion in the course of the formative experiment took place during a survey of students, testing, solving problematic situations, performing their supervisory work. The students of experimental and control groups before carrying out the formative stage of the experiment had almost identical output data of the levels of formation of knowledge of a professional - personal character. In conducting this experiment, the students of experimental groups had positive changes in the level of assimilation of knowledge of professionally - personal nature occurred more rapidly than in the control group. Thus, the number of students of experimental groups with a high level of knowledge of a professional - personal character increased by 17%, in contrast to control groups, where in numerical form this figure is 7%. As for the dynamics of changes in the number of students with a low level of knowledge of the specified type of experimental and control groups, it showed a decrease of these indicators by 7% and 2% respectively.

To study the level of formation of skills of professional - personal character as a second indicator of cognitive - active criterion at the formative stage of experiment were used the following methods and techniques as: observation, questioning, solution of problematic situations and modified by us methods of diagnosis of empathic ability by V. Boiko.

After conducting formative stage of the experiment, the number of students of the experimental group who demonstrated creative level of skills of professional - personal character increased by 14% and in the control group - only by 1%. As for the number of people with a reproductive level of skills of a professional - personal character of experimental groups, the number of students from these levels of skills of decreased by 11% and in the control group - only by 2%.

Diagnosis of formation of students' professional - personal qualities as the first indicator of individual - personalized criteria occurred during the time of observation, surveying of students and modified by us methods of detection of communicative and organizational habits.

The analysis of the obtained data made it possible to conclude that at all students of experimental groups there was an improvement in the corresponding results of diagnosis according to the form of the formation of professional - personality traits. Thus, an increase at the number of students of experimental groups with high and low levels of formation of the above qualities is: + 12% and - 13% respectively. At the students of control group was observed significantly slower dynamics of positive changes after the experiment. In particular, an increase at the number of students with high and low levels of the formation of professional - personal qualities is: + 3% and - 6% respectively.

For diagnostics according to the second indicator (detecting at students the ability to carry out reflection of the process of personalization) of individually -personalized criteria we organized self-evaluation of students, and also used a modified method by V. Stefansson of determining major trends of behavior in a real group and perceptions about themselves and modified method (unfinished sentences) by Sacks and Levy.

The analysis of the obtained data in experimental groups after conducting the experiment showed that the number of students who regularly showed capability to perform reflection of process of personalization increased by 13% and the number of people in which was not almost formed this capacity - fell by 14%. At control groups, the number of students with the ability to regularly carry out reflection of process of personalization increased only by 2%, and students who practically did not carry out the above reflection reduced by 4%.

Thus, you can make a general conclusion about the fact that according to defined criteria and indicators more intense positive changes on the level of personalization occurred at students of experimental groups compared to the students of the control group, which indicated the truth of launched in a research hypothesis. Taking into account obtained information and indicated signs according to which were allocated three levels of personalization of future specialists in physical therapy, we set the number of students of experimental and control groups before and after conducting the experiment, personalization of which met one of these levels.

Considering the obtained above data, according to which were allocated three levels of personalization of future specialists of physical therapy, we could set the number of students experimental and control groups before and after conducting the experiment, personalization of which met one of these levels. These data are shown in the table 1

Table 1: Generalized results of experimental work

Level of personalization of students	Experimental groups (114 students)		Control groups (112 students)	
	Ascertaining stage	Control stage	Ascertaining stage	Control stage
high	9% (10 students)	20% (23 students)	10% (11 students)	14% (16 students)
average	74% (84 students)	76% (86 students)	74% (83 students)	73% (81 students)
low	17% (20 students)	4% (5 students)	16% (18 students)	13% (15 students)

As indicated previously defined parameters had three values: high, average, low (c = 3). The value of the statistics of T-_{Exp} is calculated by the formula:

$$T_{\text{exp}} = \frac{1}{N_1 N_2} \sum_{i=1}^3 \frac{(N_1 Q_{2i} - N_2 Q_{1i})^2}{Q_{1i} + Q_{2i}},$$

where N_1 - the number of students of the experimental group, N_2 - is the number of students of the control group; Q_{1i} and Q_{2i} - the number of students in each group, whose level of formation of the leadership position is corresponded to low (i = 1), average (i = 2) or high (i = 3).

Substitute corresponding data: $N_1 = 114$; $N_2 = 112$; $Q_{11} = 23$; $Q_{12} = 86$; $Q_{13} = 5$; $Q_{21} = 16$; $Q_{22} = 81$; $Q_{23} = 15$

Perform the necessary calculations:

$$(N_1 Q_{21} - N_2 Q_{11})^2 / (Q_{11} + Q_{21}) = (114h 16 - 112h 23)^2 / (23 + 16) = (1824 - 2576)^2 / 39 = 752^2 / 39 \approx 14500,10$$

$$(N_1 Q_{22} - N_2 Q_{12})^2 / (Q_{22} + Q_{12}) = (114h 81 - 112h 86)^2 / (81 + 86) = (9234 - 9632)^2 / 167 = 398^2 / 167 \approx 948,5;$$

$$(N_1 Q_{23} - N_2 Q_{13})^2 / (Q_{23} + Q_{13}) = (114h 15 - 112h 5)^2 / (15 + 5) = (1710 - 560)^2 / 20 = 1,150^2 / 20 \approx 66125,0;$$

$$T_{exp} = \frac{1}{N_1 N_2} \sum_{i=1}^3 \frac{(N_1 Q_{2i} - N_2 Q_{1i})^2}{Q_{1i} + Q_{2i}} \approx (14500,10 + 948,5 + 66125,0) : 12768 \approx 6,39 > T_{cr} = 5,9$$

Consequently, $T_{exp} > T_{contr}$. This allows you to make a conclusion, that the alternative hypothesis is accepted: differences in the division of students of experimental and control groups by levels of personalization are statistically significant with a probability of 95%. This confirms the correctness of the formulated hypotheses of the research.

CONCLUSIONS

The study provides a theoretical generalization and practical solution of scientific problem of formation of professional competence of future specialists of physical therapy that reveals in a theoretical justification and experimental check of pedagogical conditions that provide the personalization of their learning process.

It was found that personalization is manifested through the disclosure of personal nature of person at the time of his interaction with other members of society, but its maintenance is necessary condition for the personal formation of each individual person and for the development of society in general.

In the course of the study it was determined that the personalization of process of learning involves such organization that provides effective personalization of each of its subject. Under personalization it is meant personal growth of the student, which is manifested in his effort to organize the interaction with other members of society and ensure his own contribution to their personal development.

It was developed criteria and indicators of personalization of future specialist in physical therapy at higher educational institutions: motivational - personal (character of motives of professional - personal self-improvement, revealing the desire to personalize on the basis of socially significant values); cognitive - active (level of assimilation of knowledge of professional - personal nature and formation of skills of professional - personal character); individual -personalized (level of formation of professional - personal qualities, revealing the ability to carry out reflection of the process of personalization). There are three levels of personalization of future specialists in physical therapy: low, average and high.

The theoretical substantiation of the pedagogical conditions for ensuring the personalization of the process of training of future specialists in physical therapy in higher educational institutions of physical culture was made: 1) ensuring the purposeful disclosure of each student's professional- personal potential; 2) stimulation of internalization by future specialists in physical therapy of socially significant values; 3) the organization of educational and professional collective activity of students on the basis of cooperation as a means of accumulation of their experience of the perfect representation of their own person in the life of other people.

Implementation of these conditions contributed to the increase of formation of those motives, values, knowledge, skills, necessary for the formation of professional competence of future specialists of physical therapy.

The results of the study during confirm the efficiency of proposed pedagogical conditions on providing personalization of the process of training of future specialists of physical therapy, show a significant dynamic of levels of personalization of students of experimental groups compared to control groups by certain criteria

and indicators. Yes, the number of students of experimental groups with high levels of personalization increased by 11 % in the control group - by 4%, the number of students of experimental groups with low levels of personalization decreased by 13%, in the control group - by 3%. Statistical significance of obtained results was confirmed by using the criterion of Pearson for independent samples.

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