

Scientific-Pedagogical Maintenance of Medical College Students' Tolerant Thinking and Activity Development

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Abstract

The paper is focused on the development and experimental verification of scientific-pedagogical maintenance of medical college students' tolerant thinking and activity development. As leading methods the following ones have been chosen: express questionnaire "Index of tolerance"; the technique for diagnostics of predisposition of the individual to conflict behavior by K. Thomas; the technique of diagnostics of general communicative tolerance, which was used to diagnose the level of communicative component's formation. The article offers modifying variant of psychological education content at the medical College of tolerant orientation; presents the model of educational process on psychology, aimed at medical students' tolerant style of thinking and activities developing, including: a) transformation of traditional contents and forms in teaching psychological disciplines for medical students and methods of their activities; b) main stages and directions of college teacher's activity, developing students' tolerance in the process of their psychological education. The experiment conducted in the framework of the research gives grounds to make a conclusion about the effectiveness of scientific-pedagogical maintenance of medical college students' tolerant thinking and activity development.

Keywords:

Scientific-Pedagogical Maintenance, Medical College Students, Tolerant Thinking, Development.

1. Introduction

1.1. The relevance of the study

In recent years, vocational school pays special attention to the educational process's efficiency and quality improving, but forgetting sometimes about the formation of common humanitarian orientation of the individual and one of its aspects such as tolerance that determines this quality. It should be noted that within the framework of humanistic outlook formation in recent decades, the theme of tolerance has become one of the most urgent and widely sought after in the educational systems of all developed countries.

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The attempts to give a scientific definition of tolerance arises considerable difficulties since it is used in various fields of knowledge: ethics, psychology, pedagogy, politics, theology, philosophy, medicine, and others.

Focusing the multifaceted problems in the selected content field, it is appropriate to consider the *tolerance* as a multi-component quality of the individual, presupposing its ability to adapt to a complex and ambiguous environment of modern professional society, organically integrate into it, to perceive its variability as a "normal development", to be able to see the diversity of the surrounding world, combining his own vision to the assessments and approaches of other individuals [1].

In this regard, it is possible to call the meaningful socially significant qualities of *thinking's tolerant strategies and individual's activities*.

1.2. Literature Review

Modern problems of tolerance studying are diverse: tolerance in the process of gaining by the personality of its integrity [2], the problems of inter-ethnic tolerance [3] [4] [5], the limits of tolerance [6], tolerance in the educational system [7] [8] [9] [10], tolerance as a value of socio-cultural system [11] [12] [13] [14] [15], tolerance as a behavioral reference point [16] [17] [2] [18], and many others. However, it should be recognized that the idea of tolerance today, is insufficiently developed in the education, particularly, in Russian: without attention for a long time remained the development issues of tolerance directly in the learning process, including in institutions of secondary vocational education. Today, it is virtually obvious for all that the realization of the idea of tolerant style of thinking and activity is associated with today's social order of students' preparation for future professional activity. Therefore there is a need to study this problem, determine its scientific status, scientific study and search of ways to develop tolerance in the learning process [19] [20] [21].

The relevance of future medical workers' tolerance formation is due to the nature of their chosen profession, in which very clearly the humanistic orientation is manifested, suggesting the availability of such qualities as being kind-hearted, having sincere attitude to the patient, being able to understand his abnormal physical and mental states, expression of sympathy, complicity and the participation in patients' problems, possessing of a high degree of tolerance for negativity in communication and behavior and a number of other qualities.

However, the analysis of practice shows that the discussed personal qualities' formed level of vocational colleges' graduates' is very low.

2. Materials and Methods

2.1. Methods of study

During the study the following **methods** were used: analysis of pedagogical, psychological, scientific-methodical literature on the research problem; SWOT analysis; comparative analysis of educational and curricula documentation on the psychology; study and generalization of pedagogical experience; pedagogical experiment; observation; questionnaire; interview; testing; expert evaluation method; methods of statistical processing of experimental results.

2.2. Methodic of study

As basic techniques the following ones have been selected:

- express questionnaire "Tolerance index" [5] [22]. Three subscales of the questionnaire are directed to diagnose issues such as ethnic tolerance, social tolerance, tolerance as a personality trait;

- method of diagnosing a predispositions of a personality to conflict behavior by K. Thomas (adaptation N.V. Grishina) [23].

- a method of diagnosis of common communicative tolerance [24], which is used to diagnose the level of formation of the communicative component of tolerance.

3. Results and Discussions

3.1. A retrospective analysis of the tolerant style of thinking and activity

The analysis of the literature and regulatory documents allowed us to make a confident conclusion that the problem of formation of tolerance was not artificially embedded in the educational space – it followed, for example, from the analysis of the state educational standards of vocational training (table 1).

Table 1. The ratio of general competencies of SES VT III generation and strategies of tolerant behavior and activities

Professional quality of VT medical graduate	Concrete manifestation of strategies of tolerant behavior and activity
1. To understand the essence and social significance of their future profession, to show sustained interest to it	To realize themselves in the profession through a comparison of the requirements of the social order to the representatives of the profession and personal visions of themselves as members of the professional community
2. To organize their own activities, choose standard methods; make decisions in standard and non-standard situations and be responsible for them	To be able to consider professional problems from the viewpoint of polar, not always coincidental approaches, look for common ground; to be able to make decisions in the logic of a sensible and reasonable compromise
3. To search and use information necessary for the effective performance of professional tasks, professional and personal development; aware themselves and their place in modern society	To be able to consider socially defined and personal goals holistically, i.e. in the aggregate of the various components and approaches to their implementation; aware that optimal professional and personal implementation is impossible without consideration of many conflicting factors, conditions and components
4. To work in a team and to communicate effectively with colleagues, management, customers	Resistance to the conflict; resistance to behavioral abnormalities, ability to tolerate statements and defending their own position or point of view, the willingness to express a tolerant attitude to the statements of others, the ability to "interact with others" and the ability to negotiate; adequately respond to criticism, take into account the constructive comments

	of partners, colleagues and mentors in the future professional activities
5. To take responsibility for the work of team members (subordinates), for the result of the executed tasks	Ability to organize the work of the group of performers on the basis of tolerance, choose the best solutions of issues and problems on the basis of the principles of tolerance
6. To determine the objectives of professional and personal development independently, to educate themselves, to plan and implement professional development consciously	A positive orientation towards others and received information, the demand for humanistic, dialogue partnerships, their dominance in the process of professional and personal development; the unity of self-determination and self-evaluation in the activities of the future specialists, defining their professional route
7. To navigate in conditions of technologies' change in professional activity	Openness to new ideas, approaches, techniques and technologies in professional activity
8. Treat the historical heritage and cultural traditions of the people, respect the social, cultural and religious differences	Tolerant attitude to the surrounding people, regardless of social, religious, racial and other features, equal desire to help all those who is in need
9. To be ready to fulfill moral obligations towards human beings, society and nature; be able to consider ethical and legal norms in the solution of professional tasks	Skills in making professional decisions to harmonize their own professional and personal decisions and their implementation vectors with legal and ethical norms and rules established in the society
10. Know the basics of entrepreneurship and characteristics of entrepreneurship in the professional field	The ability in the course of professional business activity to combine productively their own commercial and financial interests with the interests of partners, ability to sign contracts and agreements on a parity basis; the ability to extract the maximum benefit from combinations that combine the goals of all stakeholders
11. To be able to practice on the solution of professional tasks in institutions of various organizational and legal forms	Psychologically adequate perception of those inevitable difficulties and problems that arise in the initial phase of professional activity after College's graduation – tolerant adequate professional adaptation

The analysis of the SES VT shows that tolerant strategy thinking and behavior are inherent to those professional qualities that are indicated among the priorities of professional of medical profile in the regulations, and sometimes inevitably are included as components.

This allocates the importance of the problem and the need for appropriate transformation of the content and students' methods of active learning in medical colleges.

The validity of necessity of tolerantly oriented transformations of psychological education's traditional system at medical College can be explained by the SWOT-analysis of psychological education's content

Table 2. SWOT-analysis of traditional and transformed in the context of the tolerance-based psychological education in medical college

<p>The advantages of traditional psychology course:</p>	<p>The shortcomings of traditional psychology course:</p>
<ul style="list-style-type: none"> - providing of solutions to the problems of humanitarian education of the students; - mastering by the students the initial skills of psychological nursing; - scientific-practical preparation for subsequent in-depth study of psychology at the stage of University education; - the skills' formation to work in a team. 	<ul style="list-style-type: none"> - the lack of clear emphasis on the development of the humanity of the professional; - lack of focus on development of skills of tolerant approach to professional and personal conflicts; - theoretical and practical basis of the course and forms of teaching are not focused on the students' representations of specific examples of behavior and communication.
<p>The long term benefit of medical students who have mastered the transformed course of psychology in the key of tolerance:</p>	<p>Possible risks from the lack of transformation of psychology course in the medical College:</p>
<ul style="list-style-type: none"> - The ability to vary the style of interaction, depending on the condition and personality characteristics of the interlocutor; - The ability to build communication in the team on tolerant behavior and activities' strategies (cooperation, compromise); - Ability to establish and maintain collective favorable psychological atmosphere; - Willingness to provide personally-oriented psychological care and support to patients and their relatives; - The ability to build business communication based on the productive combination of their own business, professional interests with the interests of the partners; - Regulation of their internal state, rapid recovery of mental equilibrium by using a specific set of 	<ul style="list-style-type: none"> - Callous attitude of nurses to patients, without regard to their individual personality characteristics and physiological state; - Use of unproductive communication strategies, the pursuit of only their own interests in personal and professional conflict; - The lack of nurses' skills of individual approach in the provision of psychological assistance to patients and their relatives; - The inability of nurses to engage in constructive dialogue, authoritarian style of management, the resolution of the contradictions, problems and controversies "by force".

psychological techniques for the implementation of productive communication.

In the context of the theme the analysis is done on the problem under study research, which reveals that in the formation of tolerance a dominant emphasis is done on ethnic and cultural behavioral component, but obviously is not used enough the potential in the content of education (in particular, psychological) and in organization methods of students' educational activity. From this analysis promising directions are identified that should be taken as a basis in further research of the designated problem of vocational medical education:

illustration how intolerant attitude to a number of possible mutually supplementary approaches to the description of some phenomenon, object or process as obviously unproductive really leads to some negative consequences;

- illustration how intolerant neglect of a number of parties, properties, aspects and features of a holistic pedagogical phenomenon lead to the impossibility of a productive solution to the challenges that society poses to the system of vocational education;

- illustration how the rejection of the opponent's point of view in the debate, discussion as clearly invalid, in most cases does not lead to positive results.

3.2. Substantive and procedural aspects of a tolerant style of thinking and activity development among medical students in the process of psychological education

The analysis is performed and the levels are revealed of tolerance ideas' implementation in the traditional psychology course content.

Table 3. The ratio of tolerantly oriented content of psychology course and specifically developed aspects of tolerance

The content filling of the education by tolerant ideas	On the development of which aspect of tolerance it is directed
illustration of unproductive use of force, arbitrary methods and approaches in problems' solving in science, practice and society in general	Medical students' understanding and acceptance of the principle of "Golden mean" as a substantive basis of tolerant behavior in situations of contradiction, common sense, flexibility in decisions, their deep thoughtfulness in case of possible negative consequences
illustration of the productivity of a multipolar, comprehensive analysis of the surrounding phenomena and approaches to their description and unproductivity of unilateral, unipolar analysis, truncated and inevitably reducing the possibility of obtaining a reliable picture of what is happening	The understanding and acceptance of the diversity of the world and the ineffectiveness of the consideration of the phenomenon, problem, phenomenon, process from one point of view. Recognition along with their own view of the existence of the other; the recognition of opponents' right to protect, the willingness to accept the view of the opponent in the case, if it leads to evidence-based, reasoned counter-arguments or arguments

Representation of tolerance in the key dialectical (dialectic – a type of epistemological tolerance), involving the illustration of the unproductive approach based on dichotomies (either / or) – as opposed to "dialectical complementarity"	Reasonable (in some cases compromise) connection, the combination of seemingly opposite approaches to addressing of the social and professional phenomena, aimed at perception of superficially incompatible positions as "related" one, but addressing of the problem from different sides or from different angles of view
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The author's special course "Tolerance in medical profession" is developed in the study, which is aimed at the development future nurses' skills to manage their behavior in communicating with patients and colleagues, and includes cognitive (awareness of tolerance and professional culture), communicative (improving of communication skills from a position of tolerant interaction and the development of skills of self-regulation in the process of communication and activity) and behavioral (development of tolerant strategies of behavior and activity) components.

In the study traditional methods' transformation of students' educational activities organization is presented (table 4).

Table 4. The ratio of students' tolerantly oriented forms of work and specific developed aspects of tolerance

Transformed traditional forms of work of students	Tolerant components of the personality structure, developed in students
1. Discussion: - showing ambiguity of possible solutions of the discussed problems and the necessity of cooperation to cover all its aspects; - facing students with the need to resolve the contradictions by reducing them to a single logical base	- Readiness for critical analysis of their own judgments and points of view, and an in-depth, thoughtful analysis of the views and opinions of opponents; - Readiness to solve arising problems and contradictions on an equal footing, without resorting to pressure and aggression
2. brain-storming oriented on tolerance	Willingness to relate their own views with the views of the opponents, finding that the degree of their inherent similarities, which will identify the point of "contact" and productively resolve the contradictions
3. The method of "Case studies"	The acquisition of the experience of possible professional conflicts' solving, finding compromise in "acute" situations that do not allow to disregard someone's opinions and interests - to that extent of the parties agreement, which is necessary for the

productive functioning of professional micro-society

4.	Business games	The same ones as in the method of "case-study", but special emphasis is placed on integration of the participants into the atmosphere of pre-planned by teacher professional conflict situation, deep personality "filling" of all its peculiarities and stages of the permit towards achieving an adequate degree of agreement
5.	training oriented on tolerance	Focus on complex formation of tolerant communication style as a holistic multi-component construct.

A list of the sources to design tasks, fragments of lectures is presented aimed at the tolerant strategies of thought and action development which contain contradictions to be resolved, description of conflicts, ambiguous and controversial situations, etc.:

1. The relevant fragments known to students of literary, artistic and journalistic, scientific and popular works.
2. Relevant fragments of everyday personal and professional experience of the teacher.
3. Relevant information from TV and radio programs, films, theater; Internet resources.
4. Appropriate situation of the everyday life and the educational experience of students, including learning in a particular school, educational group, etc.
5. The relevant professional experience of teachers of specialized disciplines and personal professional experience of students.

Fig. 1 also shows the sequence of actions of the teacher, modifying the content of the psychological education for tolerance formation.

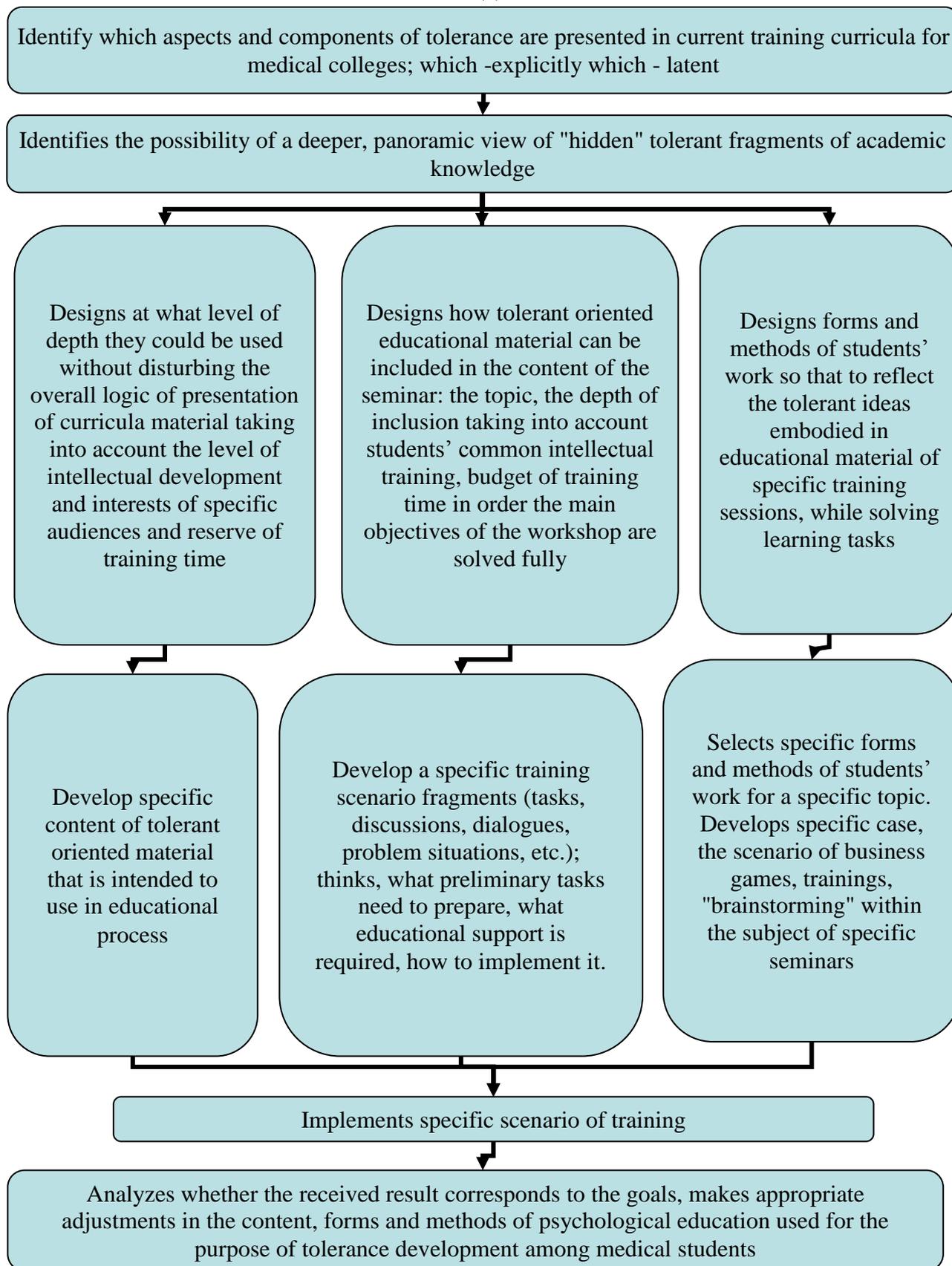


Figure 1. The sequence of teacher's actions, modifying the content of psychological education with the purpose of tolerant style of thinking and activity development

Summarizing all the above mentioned, a model of educational process on psychological disciplines can be suggested aimed at the development of medical students' tolerant style of thinking and activities (Fig. 2). In this model the modification of the traditional psychological course's content and forms of students' activities organization are reflected, to enhance the effectiveness of the course in terms of forming of tolerance among medical students.

The medical student with the developed tolerant attitudes and strategies

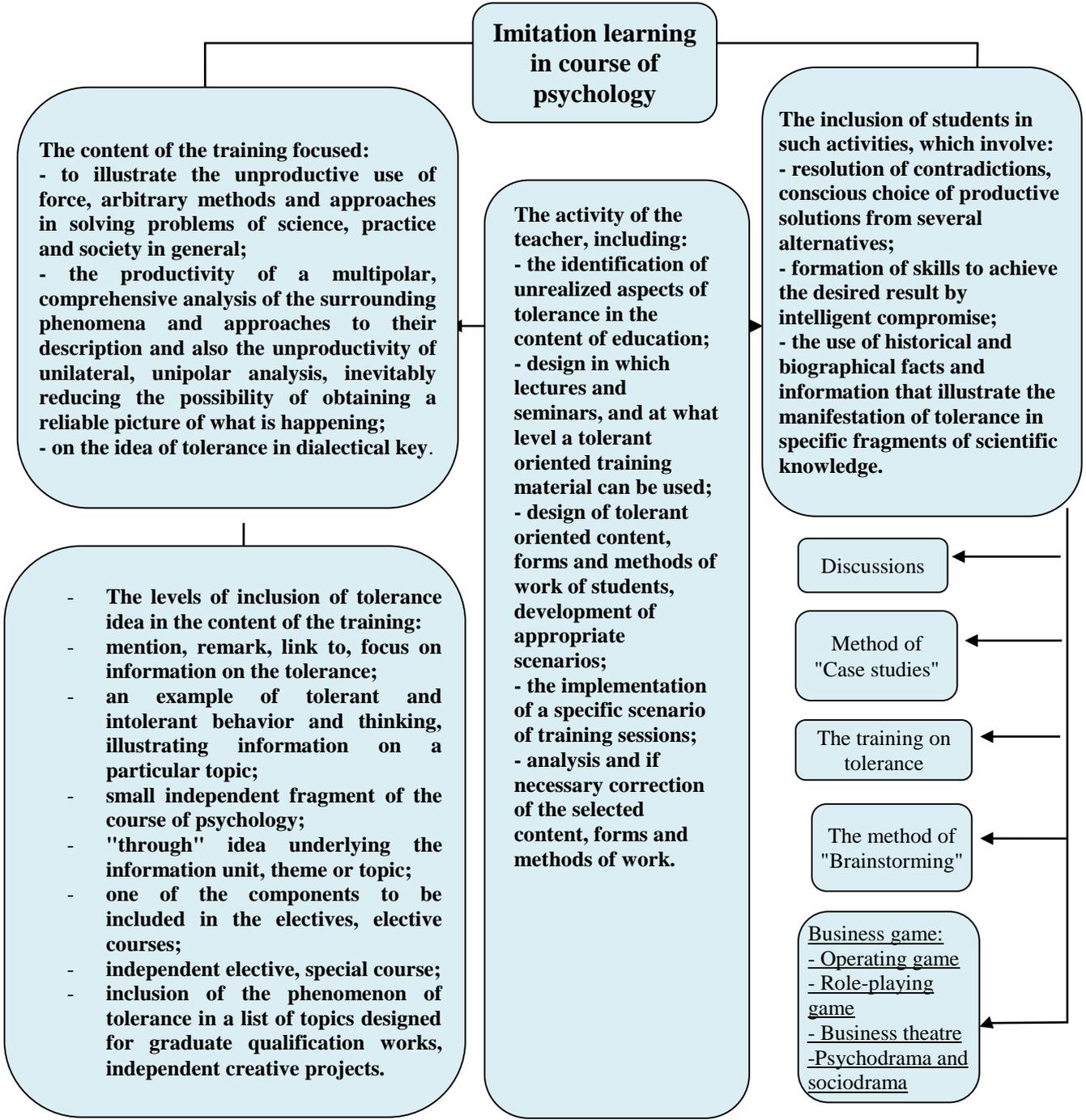


Figure 2. Model of educational process on psychological disciplines aimed at the development of medical students' tolerant style of thinking and activity**3.3. The course and results of the experiment**

In the experimental part of the work the parameters to estimate the efficiency of the developed methods of tolerance forming in the educational process on psychology in the medical college are described.

Table 5. Different aspects of tolerance and the appropriate levels of their formation in individual

Aspects	cognitive	communicative	Behavioral
Levels			
high	<ul style="list-style-type: none"> - the individual does not insist on own point of view on scientific and practical issues; - aims at the analysis of phenomena to attract as many different points of view, opinions, attitudes, judgments; - not categorical in the conclusions, recognizes the possibility and legitimacy of judgments, approaches, and findings that differ from his or her own; ideological and psychological openness of the individual. 	<ul style="list-style-type: none"> - individual transferring the information, motivation to action, expressing feelings, emotions, takes into account the beliefs of the addressee; - understands and respects the cultural values of the opponent; - the individual will not tolerate verbal aggression; - the individual is open to communication, ready for more comprehensive discussion of the issues when the parties honestly express their understanding of what is happening and offer ways out of conflict situations; - committed to open dialogue. 	<ul style="list-style-type: none"> a conscious choice by the individual of tolerant behavior forms; -the rationale and flexibility at a certain choice or any decision making; - adequacy of perception, not changed by the interests of the parties of the conflict; - in conflict situations selects strategies of cooperation and compromise; - the individual tries to create the atmosphere of mutual trust and cooperation.
Medium	<ul style="list-style-type: none"> - the individual recognizes the possibility of alternatives to his or 	<ul style="list-style-type: none"> - the individual can sometimes produce episodes of verbal 	<ul style="list-style-type: none"> - the individual strives for esteem of others and the reasonableness of judgments

	<p>her own opinion, but is sure it is being wrong</p>	<p>aggression.</p> <p>about them, but intuitively and situational selects forms of tolerant behavior;</p> <p>- in conflict situations prefers the strategy of "avoidance" or "adaptation".</p>
<p>Low</p> <ul style="list-style-type: none"> - the individual adheres to his or her own ideas and refuses to evaluate critically himself; - individual is categorical or conservative in the estimates of people, thus it regulates the expression of individuality of partners and requires to the preferred uniformity that matches his or her inner attitude -prevailing values and norms 	<ul style="list-style-type: none"> - the individual is not willing to consider the opinions of others; - he is kept in isolation; - the individual refuses to make concessions in conflict situations. 	<ul style="list-style-type: none"> - the individual manifests open hostility towards others; - in conflict situations the individual prefers to apply the strategy of competition and by any means to achieve his or her goals; - the individual considers as justified the preparation and execution of certain actions aimed at the prohibition, restriction of activity or coercion against other people.

At the beginning of the 2013 academic year, the ascertaining experiment was carried out. Its purpose was to: identify the initial state of students' tolerance formation in medical College who participated in experimental work. "Input" study was carried out, which was the basis for the search and generating parts of the experiment, as the obvious need for tolerant thinking and activities of the nurses showed their obvious immaturity.

On exploratory (pilot) phase of the experiment the developed methods were applied partially (partially truncated) in order to figure out if they fitted into the educational process in the framework of psychological disciplines, if they adequately perceived by the teachers and students, what obvious correction on the first results of the application was required and what training for participants – teachers was appropriate (instruction, special classes, and training materials).

At the stage of forming experiment in educational process various forms and teaching methods were implemented: business games (operational and role-play, business theatre, psychodrama and socio-drama), discussions, brainstorming, workshops and the method of "case studies". The results received in control and experimental groups and the rates of primary cutoff and final cutoff in each group were compared.

In 2014-2015 according to the results of the forming experiment the final testing using the selected methods was conducted and the following results were obtained. The level of such unproductive from the point of view of tolerance strategies as competition, avoidance and adaptation as a result of experimental effects decreased on 19, 3 and 4%, respectively. The number of respondents who preferred cooperation and compromise (attributable to tolerant) significantly increased respectively by 15% and 11%. In the experimental groups

along with the traditional forms simulation training was used for the purpose of forming tolerance.

There was a significant reduction in the number of respondents with a low level of tolerance (40%), the increase in the number of respondents who diagnosed the average level of communicative tolerance (28%) and especially significant was the growth indicator of a high level of communicative tolerance (12%).

Thus, after simulation training, the students became more tolerant, not only with regard to the opinions, points of view and the positions of others, but also to the perception of people and phenomena of the surrounding world in general. This is particularly important for tested ones – taking into account the specifics of their future professional activity. The use of imitation learning allow to develop students' general positive attitudes towards the surrounding world, beliefs and values that are essential for interaction with others in the process of the future professional activity.

4. Conclusion

The development of a tolerant style of activity both as socially and professionally valuable qualities of a future medical worker of an average link is possible in the process of psychological education, including general, social and health psychology presented in SES VT of medical direction through the actualization of tolerant capacity of the traditional content and consequential semantic permutations of accents [25] [26] [27].

The development of tolerant way of thinking in the process of psychological education of students of medical college provides orientation of the content on "epistemological prototype of" tolerance, comprising:

a) systematic illustration (as at the level of individual examples, and at the level of generalized ideas) of how in some cases is unproductive the dichotomies approach to the study of the phenomena of the surrounding world and constructive dialectical one, primarily oriented to the principle of subsidiarity;

b) a transition in the content of education from undue one-sidedness of consideration of objects and phenomena to multi-polarity – a finding of similar in different and focus on the complementarity of different approaches to the description and explanation of mechanisms of phenomena and processes' occurrence;

c) the use in teaching of case studies on the analysis of contradictions, inconsistencies, conflicts and inconsistencies, which is performing and yielding to the result in the logic of "reasonable compromise";

d) application of this variant of simulation training, which includes active participation of students in the resolution of specific professional subjects requiring the implementation of strategies' selection, the analysis of contradictions and inconsistencies – in the process of trainings, business games, discussions, the method of "brainstorming", etc.

The modeling of tolerant oriented process of medical college students' psychological education allows combine all the transformations of the educational process into a single semantic key and implement the idea of integrity in the formation of the studied multicomponent personality quality.

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