

Original Article

Chess therapy as a new trend in training of future social pedagogues

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Abstract:

Scientific research and practical social-pedagogical activity are exploring the possibilities of using chess as a means of rehabilitation. Study Aim: to determine the readiness of social pedagogues to use chess therapy and to propose a technology for the training of social pedagogues to use chess therapy in professional activities. Results: The low level of readiness of social pedagogues to use chess therapy in professional activity is revealed. We have proposed a technology for forming the readiness of future social pedagogues for the use of chess therapy in professional activities at the Pedagogical University. Conclusions: The studying of chess therapy shall be introduced into the system of training of social pedagogues.

Key Words: chess therapy, social pedagogue, readiness, technology of training.

Introduction

Since its inception, chess from a simple board game has become a powerful resource of modern society. Due to its unique capabilities, chess play became a means of development and upbringing. In researches of scientists the positive influence of chess on the formation of consecutive thinking, logical methods of mental activity (Zakharov, 1988; Talyzina & Iakovlev, 1968), imagination and operational memory (Bartashnikov, 1988), the internal plan of action (Kuprashvili, 1987; Kuchumova, 1997; Sukhin, I. 2008), reflection (Ferguson, 1995), etc was experimentally confirmed. Through the activities of the World Chess Federation (European Chess Union, 2016) chess was introduced into the curriculum of primary school in many countries. For example, in Poland since 2012, chess has been introduced as a subject in primary school. The goal of the project (World Chess Federation, 2016) is to increase mathematical primary skills of children in the 1-3 classes. Key partners for Polish Chess Federation include Ministry of National Educations and Ministry of Sport and Tourism. The project is organized and guided by the Polish Chess Federation in cooperation with 16 provincial chess federations and local authorities. More than 1500 teachers have been trained since 2012. Estimated number of pupils learning chess in schools is over 35000.

Chess is a cheap and effective resource for activating human mental activity. Over the past 20 years, scientific research and practical social and pedagogical activity are exploring the possibilities of using them as a means of rehabilitation: healing in the process of playing chess and through the game of chess. Chess therapy helps in developing a therapeutic alliance between the psychotherapist and his patient to help him through any psychological or emotional problems that he/she may be experiencing.

So, the first officially recorded case of using chess therapy occurs in the medical practice of Dr. Rhazes. He, as the chief physician at Baghdad Hospital, used chess strategies and tactics as metaphors for real life to help patients think more clearly (Fadul & Canlas, 2009).

In Reider (1945) there is a reference to the case of chess therapy. There were significant improvements in the state of 16-year old man who was isolated and suffered from schizophrenia after he had become interested in chess. Chess provided an outlet for his hostile impulses in a non-retaliatory manner. Good use was made of the patient's digressions from the game and his newly acquired ability to speak about his feelings, fantasies and dreams, which the particular emotional situation of the game touched off. The research demonstrates the fact that chess is a virtual game that enabled the patient to exert some conscious control over his feelings.

In Warsaw (Poland), from 2015, the collaboration of the Chess Federation of Poland with the Warsaw Centre for Educational Innovation implements a chess project in schools at hospitals where children with motor and emotional disorders are located (Warszawska Biuro Edukacji, 2016). In 2015, 21 teachers were trained at the 72-hour chess-training course. According to the results, the authors of the project note the acquisition of decision-making skills by children; development of concentration, patience, perseverance; formation of motivation and determination to achieve the goal and, consequently, determination in the fight against the disease.

For 25 years the association "Chovekolubie" (Bulgaria) has been developing a theory for dealing with problems by the game of chess, created by Dr. Emil Markov, a psychiatrist. The social work of Association "Chovekolubie" includes the activity of Centre for mental health "Chovekolubie", the social services Centre for social rehabilitation and integration of people with mental disorders, and the Protected residence and the clubs

for mental health in the towns of Septemvri and Strelcha. Participating in the social work, people with mental disorders acquire and develop social skills, improve their mental state and become parts of society life. The mission of the Association “Chovekolubie” is to develop the human potential and to strengthen mental health as value for every person and for the society as a whole in using chess for solving human problems. All over the world there are no sport games for people with mental problems. To change that discriminatory situation Association “Chovekolubie” founded a sport club and launched the first national and international sport events for people with mental problems. In 2009 the First international tournament on chess for clients of mental health services was held. So far seven national tournaments for people with mental problems were organized.

According to the research of the American Academy of Neurology (Wilson, Scherr, Schneider, Tang, & Bennett, 2007), it is advisable to use chess in working with people with Alzheimer’s disease. The researchers concluded that old persons who reported being cognitively active were less likely to develop mild cognitive impairment and dementia and to experience cognitive decline than less cognitively active persons. The findings suggest that frequency of mentally stimulating activity during old age is related to incidence of dementia.

In the experimental research of Panush (2000), the positive influence of chess on the development of motor skills of children with consequences of cerebral palsy was revealed.

Personal experience of using chess in the treatment of mental illness is defended by Julian Way (2015). According to the scientist, the standard treatment model for mental illness places emphasis on medication. This model takes responsibility away from the patient and can make them feel disempowered. Instead, he prefers developing life skills and strategies ranging from a common-sense self-assessment, with inevitable trial and error, to submitting to the more scientific Cognitive Behavioural Therapy. These skills and strategies are also pertinent on the chess board. According to Julian, recovery from long-term mental health issues has strong parallels with chess. Playing chess can provide individuals with scenarios to perfect a different kind of thinking. Being able to develop, harness and sharpen thinking skills is integral to chess and essential to recovery. Thus, chess develops the skills of independent thinking, which is essential for the restoration of patients with mental disorders.

Since 2013 in Spain a project “CHESS4ADHD.COM” has been implemented (Chess Spanish Federation, 2016). It develops chess as an educational intervention for children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). The goal of the project is to get children diagnosed with ADHD, improve their attention, control their hyperactivity, improve their calculation, social relationships, ability to get better grades, have a more controlled behavior at home and in school, not to receive notes of bad attitude.

Scientific research conducted by a group of scientists in Spain (Blasco-Fontecilla et al., 2016) on the problem of the use of chess therapy in working with children diagnosed with ADHD confirmed that playing chess could be included within the multimodal treatment of ADHD.

In Brazil chess has been tried as a therapy for drug users (Cunha, 2014; Gonçalves et al., 2014). The aim of this study was to examine the effects of a new model of interference, which integrates chess and Motivational Interviewing. Researchers called this new interference as “Motivational Chess” (MC). They divided and evaluated 46 cocaine-dependent inpatients (aged 18-45) in two groups-MC (n=26); and active comparison-AC (n=20). The results demonstrate that MC was associated with a more significant improvement in memory work during the first month of abstinence in addicts, indicating that specific and integrated tailored interference focusing on complex executive processes may accelerate the progress of cognitive therapy along this initial period of abstinence.

Sabine Vollstädt-Klein (2015) from the Central Institute of Mental Health in Mannheim and Professor at the University of Heidelberg in her scientific research on cognitive remediation therapy insists that chess could be an effective and cheap interference for some addiction patients. Dr. Angelo Subida is a clinical psychotherapist (Manila) who successfully uses chess therapy in the work with addiction patients.

The program “Chess in Prisons” successfully works in the Chess Federation of Great Britain since 2014. The Chief program manager Carl Portman is convinced that chess can play an important role in prisoner rehabilitation. In 2017 he wrote a chess book “Chess Behind Bars” (Portman, 2017) for prisoners. It offers a guide to chess in prisons.

Fernando Moreno (a school counselor from Maryland, the US) has been developing chess as an instrument of psychological counseling for new migrants (Moreno, 2015). His approach focuses on improving the social and emotional skills of his students and consequently their academic performance. The key to the therapeutic effectiveness is a synchronously shared experience. Fernando recommends using a large floor standing chess board because this results in more insightful conversations, perhaps because body language is more evident.

The research of the influence of the chess game for restoring altered cognitive functions of patients with schizophrenia has shown the improvement of voluntary processing, inhibitory capacity and planning abilities (Demily et al., 2009).

Today, chess therapy has been known to produce positive results in working with: 1) children who have bipolar disorders, depression, ADHD and neuro-behavioral disorders; 2) people with mental disorders; 3) addiction patients; 4) migrants and so on.

The analysis makes it possible to determine that chess as a therapeutic tool is mostly used by psychotherapists or chess volunteers.

However, according to our beliefs, chess therapy should become an effective method of working for social workers and social pedagogues. According to their professional duties, they, working with the most vulnerable people (elderly people, addiction persons, people with peculiarities of mental and physical development, people with deviant behavior, etc.), should create conditions for improving the process of socialization of these persons, based on their internal reserves, especially intellectual qualities. Thus, chess as a modern means of therapy should be in the arsenal of social pedagogues.

Material & methods

Participants: in the research 135 social pedagogues (from kindergartens, schools, clubs at the place of residence, territorial centres of social services for the elderly, social organizations) and 60 students – future social pedagogues participated.

The design of the research implied: 1) questionnaire to identify motivation for the use of chess therapy and testing to identify knowledge and skills in the use of chess therapy of social pedagogues in social institutions in Kharkiv (2015-2016); 2) development and verification of the technology of training future social pedagogues for the use of chess in professional activities; 3) questioning and testing future social pedagogues to identify readiness to use chess therapy (2014-2017, Faculty of Psychology and Sociology, H.S. Skovoroda Kharkiv National Pedagogical University).

The data of questioning and testing were collected and analyzed for changes in the components of readiness for the use of chess therapy in professional activities by future social pedagogues (value-motivational, cognitive, operational and personal).

Results

The analysis of the experience of using chess in social-pedagogical activity in Ukraine allowed to identify the following most widespread trends. The chess game is used 1) as means of development and upbringing of children and youth (kindergartens, schools, high schools), 2) as means of preventing dementia and means of re-socialization of elderly people (clubs at the place of residence, territorial centres of social services for the elderly), 3) as means of adapting to new conditions of life, relieving stress and aggression in dealing with internally displaced persons (social organizations, volunteers), 4) as means for the development of mental processes, means of socializing children with special needs (boarding school for children with special mental and physical development, inclusive education, social organizations). There are scientific and methodological studies of the first trend of using chess for developing and educating children and young people. There are programs for introducing chess training in primary schools in order to develop the intellectual qualities of junior pupils in Kyiv, Cherkassy, Lviv. Since 2017, 150 teachers of elementary schools of Lviv were trained to introduce chess lessons for the first time by the activities of the Lviv Chess Federation.

The analysis of the activities of social services in Kharkov (2015-2016) showed that the work in other three directions is carried out fragmentarily, without a purposeful methodology and scientific substantiation by chess volunteers or educators who are enthusiasts of the chess game work. The main form of work is the implementation of chess competitions, which are dedicated to certain events.

The survey of 135 social pedagogues from kindergartens, schools, clubs at the place of residence, territorial centres of social services for the elderly, social organizations identified: 1) 93,25% of social pedagogues don't know anything about chess therapy; 2) 11,11% know how to play chess; 3) 5,4% occasionally use chess in professional activities.

Thus, for the wider introduction of chess therapy in social and pedagogical activities, it is necessary: 1) to perform scientific research of the effectiveness of its use with certain categories of clients; 2) to develop scientifically substantiated recommendations for its use; 3) to train specialists (psychologists, social pedagogues, etc.).

On the basis of the analysis of socio-pedagogical literature (Kharchenko, 2006; Zvereva, 2004) on the peculiarities of professional activity and training of social pedagogues, the problems related to unpreparedness of future specialists to use innovative methods and tools in interaction with various objects of their activities are identified. The need for introduction of chess therapy in social work, which has the potential to work with different categories of clients, determines the search for ways to increase the effectiveness of forming the readiness of the future specialist of the social industry to use it. We have identified the following components in the structure of the social pedagogue's readiness to use chess therapy in professional activity: value-motivational (the formation of installation on mastering chess therapy and its use in professional activities for solving social problems of clients), cognitive (the formation by social pedagogues of a whole set of knowledge on the basics of chess, psychology, pedagogy, social pedagogy on the peculiarities of using game therapy (in particular chess therapy) in solving social problems of the clients), operational (the formation of gnostic, design, organizational, communicative, intellectual skills that will promote the use of chess therapy in professional activities) and personal (the formation of personal qualities that will help a social pedagogue to work with clients).

In 2014-2017 at the Faculty of Psychology and Sociology of H.S. Skovoroda Kharkiv National Pedagogical University there was conducted the study the level of readiness of the future social pedagogues to use chess therapy in the future professional activity. The study involved 60 students. At the ascertaining stage of the study, students were asked the questionnaire to identify motivation for the use of chess therapy and testing to identify knowledge and skills in the use of chess therapy. The results of students, as well as social pedagogues, confirmed the low level of readiness to use chess therapy. Only 6 out of 60 students could play chess; in the fact that chess positively affects the development of mental activity, almost all future social pedagogues were confident, but none of them could explain how this happens. Only half of the students could name the categories of clients of the social sphere, with whom chess can be used as a means of social and pedagogical activity. Most students pointed out the schoolchildren (the goal is the prevention of bullying or the organization of leisure).

At the forming stage, students were trained on the proposed technology. The training at the second year by the disciplines “Pedagogy of intellectual-leisure activity”, “Method of social work in leisure time” and “Art-therapeutic methods in social work”, “Technologies of social work” (at the third year of education) were directed to formation of theoretical knowledge and practical skills of playing chess, forming knowledge about the problems of clients of social sphere and therapeutic methods of working with them. Students have acquired: 1) experience in the design and implementation of therapeutic events by using chess in work with children and young people during social and pedagogical practice at summer camps (the 3^d year of training), training practice at the centre of social services for family and youth (the 3^d year of training) and industrial practice at schools (the 4th year of training); with elderly, children with peculiarities of development in the discipline “Practice in the social sphere” at 1-4th years, volunteer activities (organization of chess tournaments, consulting games, chess quests, Swedish chess, training of certain intellectual functions of schoolchildren by using chess, etc.); 2) self-control and self-assessment of using therapeutic techniques (including chess therapy) in social work during the final conferences on the results of practice, generalization of the results of the experimental work of course projects.

The control phase revealed that positive changes were identified in three of the four components of the readiness of future social pedagogues to use chess therapy: value-motivational, cognitive and operational (see

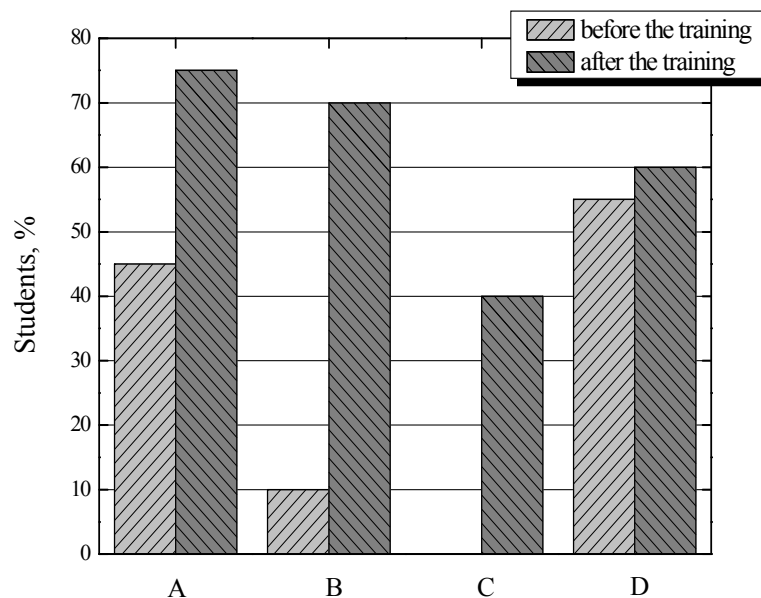


Fig.1. Formation of components of readiness of future social pedagogues to use chess therapy in professional activity
 A – value-motivational; B – cognitive; C – operational; D – personal

Fig.1). The formation of installation on mastering chess therapy and its use in professional activities for solving social problems of clients showed 45% of students before the training. After training, this indicator grew by 30%. Testing, the results of the protection of course projects, implemented projects of volunteer activity made it possible to identify changes in the cognitive component. If at the beginning of the training only 10% of the students had known how to play chess, then after the training all the students knew the rules of the game. 40% of students mastered the methods of using chess to solve social and pedagogical problems of clients (before training 0%).

Taking into account the acquired experience of practical activities during industrial practices, implementation of volunteer projects, the main categories of clients of future social pedagogues were

temporarily displaced persons, orphans, families with children, children at risk, schoolchildren, elderly people. The main directions of the use of chess therapy were: the organization of intellectual leisure time, the development of intellectual qualities of children, the prevention of teenagers' bullying, the interaction of different generations in order to transfer social experience, maintaining social activity and interaction of single elderly people, the prevention of slowing down of intellectual processes of the elderly, reintegration temporarily displaced persons from the area of the antiterrorist operation in the east of Ukraine and establishment of their new social relationships.

Discussion

Analysis of the practice of using chess therapy shows that it is used in professional activities by psychotherapists or chess volunteers. Social pedagogues and social workers tend to prefer art or fairytale therapies in working with clients. The study revealed that the low level of use of chess for professional purposes among social pedagogues is associated with a lack of knowledge and skills in the use of chess therapy.

The formation of the readiness of future social pedagogues for using of game therapy (in particular, chess therapy) in professional activities should be through the theoretical and practical training of future bachelors and masters, which consists of the following elements:

1) integration of the essence and content of game therapy (in particular, chess therapy) as a type of professional activity of social pedagogues in educational disciplines "Method of social work in leisure", "Art-therapeutic methods in social work", "Pedagogy of intellectual-leisure activities", "Technologies of social work" (training of bachelors) and "Fundamentals of the organization of gaming activities" (training of masters);

2) designing and implementation of therapeutic events by using chess in work with children and young people during social and pedagogical practice in schools, summer camps, practice at the centres of social services for family and youth, scientific and pedagogical practice at the pedagogical university;

3) designing and implementation of therapeutic events by using chess with clients of the social sector in various social institutions (territorial centres of social services for the elderly, centres for internally displaced persons, boarding schools for children with peculiarities of development) in the discipline "Practice in the social sphere" at 1-4 years, during the writing and experimental introduction of course projects at 2-4 years and during the work on master's complex individual scientific research;

4) using chess in student self-government work, forming an interest for this innovative method;

5) designing and implementation of therapeutic events by using chess with clients of the social sector during volunteer activities;

6) self-control and self-assessment of using therapeutic techniques (including chess therapy) in social work during the final conferences on the results of practice, generalization of the results of the experimental work of course projects and the master's complex individual research.

The elements of theoretical and practical training of social pedagogues for the use of game therapy (in particular, chess therapy) in professional activity form an integral system, that provides a comprehensive impact on the structural components of the readiness of future social pedagogues, identified in the research, for using chess therapy in social work.

The results of the study confirm the positive changes in the formation of the readiness of future social pedagogues to use chess in professional activity in comparison with the results of social pedagogues, who already work in social institutions. Thus, the provision of systematic preparation for the use of chess therapy corresponds to the modern concept of training specialists in the social sphere.

Conclusions

Recently, the use of chess therapy as a means of rehabilitation has been studied in scientific research and in practical social and pedagogical activities. The effective directions of using chess therapy are the work with children who have bipolar disorders, depression, ADHD and neuro-behavioral disorders; people with mental disorders; addiction patients; old persons with mild cognitive impairment and dementia.

The studying of chess therapy shall be introduced into the system of training of social pedagogues.

Conflicts of interest: The authors declare that there is no conflict of interests.

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