



Structural and Functional Model for Optimising the Life Quality of a Person with Disability

Evgeniya Gutman¹, Vladimir Aidarov², Valeriya Maslennikova³ and Bulat Fakhрутdinov⁴

¹*Kazan Federal University, Kazan, Russia*

^{2,3,4}*Institute of Pedagogy, Psychology and Social Problems, Kazan, Russia*

E-mail: ¹<Egutman@rambler.ru>, ²<vladimir_aidarov@rambler.ru>, ³<maslennikova_v@mail.ru>, ⁴<mega.sppa@mail.ru>

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ABSTRACT This study aimed to develop a structural and functional model of the psychological and pedagogical support process of optimisation of the life quality of a person with disability and its approbation. Thus, the main research method of this problem is modelling, allowing to consider this problem as a process of purposeful and conscious social-medical and psychological-pedagogical rehabilitation of a person with disabilities and mastering by specialists-rehabilitators of psychological and pedagogical competencies to carry out the rehabilitation process. Finally, the study presented a structural and functional model of the psychological and pedagogical support process of optimisation of the life quality of a person with disability, consisting of interrelated motivational-target, methodological, content-process, and effective-evaluation components. Therefore, their features were revealed, and an algorithm was developed to implement this model.

INTRODUCTION

The current socio-political and sociocultural situation in Russia is characterised by significant structural changes associated with global modernisation processes having a long-time nature. Under these conditions, society, especially socially vulnerable groups of the population, including the category of disabled people, found themselves in a situation, which causes a sharp drop in living standards, social inequality, collapse of the value system, and degradation of traditional institutions responsible for its full functioning. Experiences about one's inferiority and insolvency as a result of a defect remaining after an illness or surgery, or as a result of prolonged chronicity of the disease, can be a direct cause of psychosomatic disorders (Gorshkov 2008; Gafiatulina et al. 2018).

Unfortunately, a rehabilitation specialist in the clinical practice is mainly interested in those aspects, which change due to the situation of the disease and treatment, first of all, patient satisfaction with their physical functioning. Thus, the main attention is paid to recuperation of the somatic status of a person with disabilities, and consequently social and psychological aspects of one's condition often remain on the sidelines. In this situation, the rehabilitation

specialist is forced to assume the functions of a psychotherapist or a psychologist, as he must give the patients the expectancy of the cure and faith in their own strength and reserve capacity of the organism; otherwise, the person with disabilities will certainly feel inferiority, alienation, and failure of the low value.

According to the report of the World Health Organisation, the goal of vocational rehabilitation is not only the desire to return a person to a previous state, but also to develop the physical and mental functions to an optimal level. This means returning a person to independence in everyday life and to the previous job or, if it is possible, preparing him for another job. Therefore, psychological, pedagogical, and socio-psychological rehabilitation of people with disabilities should be considered as a social phenomenon. In fact, the main task of psychological and pedagogical support is to integrate social, psychological, and pedagogical rehabilitation in order to increase the rehabilitation potential and improve life quality of people with disabilities, including scientific, methodological, regulatory, socio-psychological, psychological, pedagogical, medical, and organisational components. In this context, it would be advised to look for a solution to the problem of developing a person with disabilities on the basis of a synergetic par-

adigm as a methodology for developing innovative perspectives in the field of psycho-pedagogical support of personal development (Chan et al. 2009; Naylor et al. 2016; Skord 2019).

Despite a rather large number of publications on the issue of psychological and pedagogical support of the process of personality development (Marek 1999; Salkind 2008), the specifics of psychological and pedagogical issues in inpatient medical institutions have not been adequately studied in relation to categories of people with disabilities. Therefore, the issue of psychological and pedagogical support for optimising life quality of a person with disabilities could be attributed to the little studied category. In addition, despite significant results of the study of optimising people's life quality, the issue of optimisation of the life quality of people with disabilities remains unresolved from the point of view of the psychological and pedagogical aspect of its solution (Aismontas and Odintsova 2017; Rogers and Bender 2018).

Young people with disabilities are in conditions of social deprivation. Moreover, they constantly experience a lack of information (Macaskill 2016; Rogers and Bender 2018). Therefore, a sufficiently large number of persons with disabilities, both adults and children, are left out of the picture, and in the worst condition, they become patients of special medical institutions, and at best, become locked in a narrow circle of relatives and friends so that they feel themselves an eternal "burden" on others. In addition, social attitudes to the families having a child with obvious abnormalities are often contradictory and "filled" with prejudices (Nelson 2003; Saurel-Cubizolles et al. 2007; Müller et al. 2019). In this regard, the family's need for new social contacts increases and thus communication of the families having the same situation with specialists, associations, and organisations, which help people with abnormalities, can be of great importance.

Research Goals and Objectives

In this paper, the proposed model was aimed at the implementation of psychological, pedagogical, organisational, and medical conditions of the effectiveness of rehabilitation of a person with disabilities and focused on the development of scientific and methodological support

of the process of psychological and pedagogical support of the optimisation of the life quality of a person with disability.

METHODOLOGY

This study used an interdisciplinary analysis of the scientific literature, which made it possible to reveal the essence of theoretical and methodological foundations of optimising the life quality and the main relationships between its components. In addition, theoretical modelling, which allowed to structure the process of psychological and pedagogical support for optimising the life quality of individuals with disabilities was employed. Moreover, psychological and pedagogical diagnostics methods, including questioning, observation, testing, and interviewing and quantitative and qualitative analysis methods of intermediate and final results were used. Furthermore, addition, clinical, radiological, functional, and static research methods were used in the work. Finally, the MOS 36-item Short Form Health Survey (MOS SF-36), descriptive statistics, correlation analysis of group comparisons using Student t-test and nonparametric criteria (Mann-Whitney test), correlation (r and r_s), analysis of variance and factor analysis were employed as a tool for assessing the life quality.

According to the research design, the laboratory of rehabilitation of the State Institution of the Scientific Research Center of Tatarstan "Restorative Traumatology and Orthopaedics" (control group), State Autonomous Healthcare Institution "Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan" (experimental group), and the Department of Life Safety and General Physical Training of the Institute of Physical Culture and Sports of Kazan (Volga region) Federal University were chosen as the research base.

The researchers conducted this in three stages. At the first stage, a theoretical analysis of the existing methodological approaches in philosophical, psychological, and pedagogical scientific literature, dissertations on the problem of the study, theories and methodologies of the pedagogical research, the problem, purpose, and research methods were identified. Then, an experimental study plan was designed to deter-

mine the effectiveness of the implementation of the psychological, pedagogical, and organisational-medical conditions for optimising the life quality of a person with disabilities.

At the second stage, experimental work was carried out, based on which the working hypothesis was refined, and a model was developed in order to provide conditions for the effectiveness of psychological and pedagogical support for optimising the life quality of a person with disabilities (with diseases and injuries of the musculoskeletal system).

At the third stage, the received material and experimental results were systemised, discussed, and implemented for designing the thesis.

RESULTS AND DISCUSSION

It should be noted that for the first time, this study developed an integrative personality-social concept based on a synergistic approach which allows the researchers to consider the psychological and pedagogical support to optimise the quality of life of people with disabilities as a process, which is largely self-organising, not based on direct causal relationships, but due to many internal and external, regular and random, predictable and spontaneous, and ordered and chaotic effects (Hogg 2001; Cogné et al. 2017). According to the analyses, requirements of psychological and pedagogical support for optimising the life quality of people with disabilities on the basis of a synergistic approach were revealed as follows:

- ◆ The openness of psychological and pedagogical activity, which involves the interaction and exchange of information and “energy” with the environment.
- ◆ The psychological and pedagogical activity, characterised by the manifestation of the initiative among specialist rehabilitologists, the desire for self-improvement, self-realisation, and the increased effectiveness of psychological and pedagogical functions.
- ◆ Rehabilitation activities, freedom of choice, consisting of the ability of psychological and pedagogical activity to determine its direction without pressure from outside, implementation of the proposed initiatives with positive emotional results.

- ◆ Satisfaction with psychological and pedagogical rehabilitation activities, including changes in the relationship between a specialist rehabilitologist and a person with disabilities in psychological and pedagogical activities, which can only develop in a system of dialogue and cooperation.
- ◆ Orientation of psychological and pedagogical rehabilitation activity towards the goals of self-development.

The model proposed in this study was implemented using the following stages of experimental work. Firstly, it was supposed to study the state of medical and organisational rehabilitation of people with disabilities in the rehabilitation laboratory of the State Research Centre “Restorative Traumatology and Orthopaedics” and the rehabilitation department of the State Autonomous Healthcare Institution “Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan”. At the second stage, which is a formative phase, it was tried to introduce psychological, pedagogical, medical and organisational conditions identified in the research process into the activities of the rehabilitation department of the State Autonomous Healthcare Institution “Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan”. Finally, the third stage determined the final level by implementing psychological and pedagogical support for optimising the life quality of the people with disabilities in the rehabilitation department of the State Autonomous Healthcare Institution “Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan”.

In total, 500 disabled people aged from 27 to 55 years old with diseases and injuries of the musculoskeletal system who underwent total hip joint replacement were included in the study. The participants were divided into the control group ($n = 270$) and the experimental group ($n = 230$). In order to confirm the reliability of the obtained information, a questionnaire of the assessment of satisfaction with the life quality associated with the health of patients with diseases and injuries was distributed among the participants in the first days of admission to the hospital, before experimental work on psychological and pedagogical support for optimising

the life quality of people with disabilities. Then, the study administered the summative assessment of the dissertation research in the rehabilitation department of the State Autonomous Healthcare Institution "Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan" in order to consider some issues, in particular, specific analysis of the medical rehabilitation of the persons with disabilities of a traumatological profile and determine the degree of satisfaction with the life quality associated with the health of this people category, the need and justification for the inclusion of the psychological and pedagogical component in the rehabilitation of people with disabilities. Afterwards, low scores on the life activity scale were observed both in the control and experimental groups (43.23 on average in both groups) (feeling full of strength and energy, or, on the contrary, exhausted), which indicates the person fatigue led to the decreased vital activity on a scale, role-based functioning due to the emotional state (12.63) that was interpreted as a restriction in the performance of daily work because of a deterioration in the emotional state of a person. According to the results of a survey on this scale (67.4), they indicated a significant limitation of the person's social contacts and a decrease in the level of communication due to the deterioration of physical and emotional state. Moreover, low indicators on the mental health scale (characterised mood: the presence of depression, anxiety, general indicator of positive emotions) (53.35) indicated the presence of depression and anxieties in persons with diseases and injuries from mental ill.

At the formative assessment, the experiment was aimed to implement the model under psychological, pedagogical, organisational, and medical conditions for the effectiveness of psychological and pedagogical support in order to optimise the life quality of people with disabilities in the activities of the Trauma Centre, the State Autonomous Healthcare Institution "Republican Clinical Hospital of the Ministry of Health of the Republic of Tatarstan". It should be noted that formative experiment was conducted over eight years and covered a total of 230 participants, including 102 males and 228 females. The average age was 43.3 years. According to the experimental results, in the experimen-

tal group, persons with disabilities showed an increase in vital activity, an improvement in satisfaction with the life quality in all respects such as physical component of health on the scales of physical functioning, role functioning due to physical condition, pain intensity, and general health, as well as psychological component of health on the scales of mental health, role-based functioning due to emotional state, social functioning, and life activity.

CONCLUSION

According to the results of an experiment on the implementation of the psychological and pedagogical support system for optimising the life quality of a person with disabilities allowed the researchers to assume the validity of the hypothesis formulated in this study.

In addition, the proposed psychological, pedagogical, and organisational-medical conditions and methodological recommendations developed on their basis made it possible to significantly increase the effectiveness of psychological and pedagogical support in order to optimise the life quality, complete and quick cure, and vocational rehabilitation, social, psychological, and moral stability of a person with disabilities.

Despite a rather large number of researches on the issue of psychological and pedagogical support of the personality development process, the specifics of psychological and pedagogical issues in inpatient medical institutions have not been adequately studied in relation to categories of people with disabilities. Therefore, the issue of psychological and pedagogical support for optimising life quality of a person with disabilities could be attributed to the little studied category. In addition, despite significant results of the study of optimising people's life quality, the issue of optimisation of the life quality of people with disabilities remains unresolved from the point of view of the psychological and pedagogical aspect of its solution. Moreover, there is no data on the process of optimising the life quality of a person with disabilities, theoretical and methodological approaches, principles, and conditions of psychological and pedagogical support, the sequence of this process, and subjective and objective criteria for evaluating its results in the scientific, methodological, psychological, and pedagogical literature.

RECOMMENDATIONS

In order to comprehend the subject of this study and eliminate the weaknesses of this study, it is recommended for future studies to compare different aspects of a disabled person's personal and social life with a healthy person in order to identify weaknesses related to lack of facilities for persons with disabilities.

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