

Contradictions of Reproduction of Human Capital in Modern Russia

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Abstract—The article draws out the main contradictions in the reproduction of human capital from the point of view of the state of healthcare as the basis for the formation of biological human capital, education as a platform for the formation of intellectual capital, motivation for its development and preservation at the stages of the life cycle. The authors came to the conclusion that transformations and reforms in the social sphere, social protection of the population, employment, personnel management, training of bachelors, specialists and masters are accompanied by significant contradictions that impede the development of human capital. The main contradiction is observed between the health priorities at all stages of the life cycle due to its lasting value, regardless of the social differentiation of the population, quality vocational education and worsening conditions for its reproduction, especially in subsidized regions. The conclusions are based on the analysis of the main indicators of the state of health care, higher education, the authors' own research, and the generalization of specialists' opinions. The authors see the minimization of the negative consequences of this contradiction in the transition to a value-oriented healthcare model; creating favorable conditions for the training of specialists capable of active thinking, the formation of human and intellectual capital in accordance with the challenges of our time. Due to the fact that national projects were updated, we consider this tool for the formation and preservation of human capital.

Keywords—*human capital, stages of the life cycle of human capital, value-oriented healthcare system, higher education system, motivation to preserve workers' health, risks of "occupational burnout" of personnel, national projects.*

I. INTRODUCTION

In the twenty-first century, research in the field of human capital is becoming increasingly important due to many circumstances. These include civilizational changes, global peace and competition, lack of effective tools that meet the challenges of the times in terms of the development of human and intellectual capital, social policies that do not ensure access to quality health care and education, a pension system that is contrary to the interests of people in the field of conservation and accumulation of human capital, and others. Currently, many scientists and experts share the opinion that globalization is characterized by new challenges that are not reducible to the past experience of mankind; therefore, it requires changes in the models of organization of social processes.

These circumstances, to varying degrees characteristic of European countries, are also applicable for Russia. They

give rise to serious contradictions of inconsistency with the needs of society in the accumulation of non-material elements of wealth, such as scientific achievements, intellectual property, etc. One thing is certain – countries are in search of new principles of financing the social sphere, new models of healthcare organization and development of the education system, adequate to the requirements of training specialists for the information society, etc. [1-4].

It is obvious that the transition to the information society creates new requirements for the nature and quality of the staff's professional activities. They are associated with labor efficiency, stability of social and labor relations, employers' risks due to both possible economic losses and the search for qualified personnel; therefore, the article focuses on a relatively new phenomenon – "occupational burnout" of employees.

II. LITERATURE REVIEW

Let us consider the basic elements of human capital in more detail. It is a fact that there are many definitions of this category because of its versatility, starting with W. Petty, the founder of English classical political economy. Nobel laureates G. Becker and T. Schultz gave a deep substantiation of the theory of human capital [5]. We use the definition formulated by Russian scientists A.N. Dobrynin and S.A. Dyatlov, reflecting the needs of the modern information and innovation society: "Human capital is a certain stock of health, knowledge, skills, abilities, motivations that are formed as a result of investments and accumulated by a person, which are expediently used in the labor process, contributing to the growth of its productivity and earnings" [6]. As a rule, health, natural abilities, education, professionalism, and mobility are considered as elements of the category. Currently, the structure of human capital includes, in addition to the elements mentioned above, information retrieval skills and high migration mobility; the availability of fundamental scientific developments; environmental behavior and healthy living; high culture and the ability to rationally organize leisure activities. Experts give a deep description of these elements, contributing to the search for effective methods of formation, development and reproduction of human capital. For example, biological capital of health is represented by two organic parts – hereditary and acquired, which require adequate measures to control the reproduction of human capital, investments in the family budget, health care system and physical education [7].

III. RESEARCH METHODOLOGY

The objective is to actualize the problem of medical care access and education quality as the most important conditions for the formation and use of human capital guaranteed by the Constitution of the Russian Federation [8]. The study was conducted in three stages. At the first stage, the situation of reproduction of health capital is analyzed using the main indicators characterizing the number of people employed in the industry, the number of hospitals, including by ownership, the consequences of worsening conditions on the example of conflicts in medicine. Particular attention is paid to a new healthcare model that minimizes the contradictions highlighted by the authors. At the second stage, an analysis is made of a number of changes in the field of training specialists with higher education, including those that provoke “occupational burnout” of the teaching staff. Factors and causes of “occupational burnout” were identified by the method of sociological survey. At the third stage, conclusions and proposals are formulated aimed at minimizing the contradictions in the reproduction of human capital. The main research method is to analyze the main indicators of changes in health care and higher education, taking into account expert assessments.

In the process of reproduction of human capital, a significant role is played by the healthcare system, which performs the function of monitoring the state of health, implements measures to preserve it, and contributes to an increase in the period of active life and minimization of disabilities. Consider the most important indicators characterizing the availability of medical care to the population. The number of employees in the industry from 2005 to 2016 changed slightly – from 4.4 to 4.6 million. The number of hospitals decreased from 9479 units up to 5357 units (by 1.8 times). The number of hospitals in rural areas decreased sharply – from 3659 units down to 1006 units (by 3.6 times). In urban areas, the number of private-owned hospitals is growing.

The expenditures of the consolidated budget of the Russian Federation in 2016 amounted to 3.1 trillion rubles (an increase of 1.3 times compared with 2013). During this period, the so-called health system optimization took place, i.e. reduction of health care costs instead of modernization aimed at improving the organization of medical care for the population, as a result of which the volume of paid medical services increased from 109.7 to 572.4 billion rubles (a 5.2-fold increase) [9-10].

IV. RESULTS

Dynamics of these indicators shows that conditions for the reproduction of health capital are deteriorating. Russian scientists are worried about the consequences of human capitalization. The value of a person began to be determined not so much by his uniqueness (individuality) as by pragmatic use as a source of income, and the costs of developing human capital are accompanied by optimization of resources [11]. Passion for optimization of resources in healthcare led to the declarative nature of the availability of free medical care to the population, unjustified sizes of paid services.

The conclusion is confirmed by the results of sociological studies, which indicate that most of all citizens are dissatisfied with lower incomes, low wages, and the inability to pay for medicine and education. According to surveys of the Federal State Statistics Service and the Central Bank in March 2019,

49.5% and 49.8% of the respondents were absolutely not satisfied with the possibility of paying for medical services and education [12].

Let us pay attention to such a socio-economic consequence of the changes as conflicts in the corporate environment of medical workers. Recently, in different regions there has been a public dissatisfaction with low wages, high labor intensity, bureaucratization of management processes, lack of transparency in decisions, legal insecurity from medical errors, and the decline in the prestige of the profession (for example, the story of surgeons in Nizhny Tagil who are ready for mass dismissal; doctors and nurses of the N.N. Blokhin National Medical Research Center and others) [13].

Unfortunately, the problem concerns not only professional workers, for the preparation of which budget funds have been spent for many years moving towards a high professional level, but it is projected onto relations with patients. Conflicts can contribute to professional demotivation, ineffective work of all structural elements of the healthcare system, and deterioration of the population’s health indicators.

Thus, there is a contradiction between the priorities of health at all stages of a person’s life cycle due to its enduring value and dynamically worsening conditions of its reproduction, especially in non-self-sufficient regions.

V. PROPOSALS AND IMPLEMENTATION RESULTS

The contradictions in the health care system must be minimized using the well-known experience of many countries that prefer two main areas: the formation of a healthy lifestyle and the early diagnosis of non-communicable diseases and risk factors. This approach contributes to the relative saving of resources not only in the near, but also in the distant future. At the same time, the state should ensure the availability of medical assistance to citizens in the process of interaction between representatives of authorities, medical personnel, patients, manufacturers of medical equipment and manufacturers of drugs.

These objective requirements for the reproduction of health capital correspond to a value-oriented approach to the healthcare system. With this approach, the activity of the entire healthcare system should be subordinated to ensuring the necessary conditions for effective interaction - patient freedom in choosing a doctor and health-improving technologies; professional independence of the doctor; security of interaction resources (legal, economic, informational, technological, organizational).

Valuable medicine involves a combination of the significance of the best scientific evidence and the achievement of individual value for the patient. The main goal of such healthcare is to focus on the result, which would be valuable to the patient, to control and analyze the final results of treatment at an individual level. According to A.O. Conradi and E.V. Shlyakhto, “a new paradigm is being formed in building a healthcare system and assessing the effectiveness of its functioning – the so-called value-based medicine. This concept presupposes, first of all, a competent assessment of value from the point of view of not only the true medical effect, but also from the point of view of the patient, his environment and society as a whole” [14]. In our opinion, this model of health care meets the conditions for the formation and preservation of human capital, since it operates

on the principle: “better health of the population, and not more labor and money for the health care system”.

The second key component of human capital is education. As a rule, countries with higher levels of education are more economically successful.

The demand for higher education in Russia in recent decades has partly been ensured by structural transformations in the economy and the rapid development of the services market. In turn, the proposal was caused by institutional transformations and reforms, as a result of which the number of higher educational institutions was growing, a significant number of private organizations appeared, and the number of students studying on a paid basis, including with low quality of education, increased sharply. So, from 1993 to 2018, the number of educational institutions of higher education increased from 626 units up to 766 units, the number of students from 2613 up to 4246 thousand [10]. During this period, the number of faculty members has remained almost at the same level. If in 1993 it amounted to 243.6 thousand people, then in 2017 – it was 245.1 thousand. Consequently, at a high rate of increase in the number of students and a stable number of teachers, conditions were formed for “occupational burnout” due to the bureaucratization of educational activities and an increase in workload. Our study, using the example of teachers from three universities in Ekaterinburg, showed that the fact that labor intensity increases leads to “occupational burnout” (48.5% of respondents, 94 people noted), organizational changes are the second most important factor (41.4%).

Interest in higher education is partly due to the possibility of obtaining decent wages and career development. According to Russian scientists V.I. Gimpelson and R.I. Kapelyushnikova, the return on education in the form of an increase in salary for each additional year of study was 5-7% [15]. If the increase in wages in accordance with the increase in the level of professional education of workers in the real sector of the economy is a relative incentive for graduates, then the latter is not typical for the sphere of scientific activity. Our experience shows that graduates prefer to confine themselves to graduate studies. The most important reasons for the decline in interest in scientific activity are the constant complication of the requirements for the defense of dissertations, not guaranteed decent material support due to obtaining a degree.

High level of education of the population, not provided with appropriate jobs and staff qualification requirements, was the reason for reducing the number of higher education institutions and budget funding. At a press conference at the Higher School of Economics “The Quality of Budget and Paid Admission to Russian Universities in 2018” on December 25, 2018, the Minister of Science and Higher Education of the Russian Federation Mikhail Kotyukov announced official figures and conclusions [16]. Here are some of them. In 2018, more than 6,000 people entered higher education institutions than in 2017 (due to an improvement in the demographic situation of this age group); From 25% to 40%, the share of paid tuition in Russian universities has increased. In 2011, the average amount of paid tuition per year was 68 thousand rubles in the country, and in 2018 – 140 thousand rubles. At the top educational programs, this amount reached 500 thousand rubles per year and above.

Transformation of higher education from elite to mass has determined the consequences and prospects of this process [17-18]. The Government of the Russian Federation believes that by 2024 budget places should be reduced by 20%, which contradicts the Concept of the federal target program for the development of education for 2016-2020 [19], the logic of training qualified professionals for the digital economy. The reduction of budget places in educational institutions, the increase in the cost of training inevitably leads to segregation among applicants on the basis of the material security of the family, which is under a great load in the context of changes in social policy. The idea of increasing the social responsibility of the working-age population for their own well-being, the future of children, and parental support is gradually becoming a reality. This paradigm of social policy is justified, but the active role of the state should remain, in particular, in the field of reproduction of human capital.

The rapid increase in the cost of education with a drop in income over the past 4 years is a brake on the formation and development of human capital, which contradicts the challenges of the information society. The authors share the opinion of experts on the need for “social elevators” as a system of opportunities for students to implement their own efforts [20-21]. They can become a tool to increase the accessibility of higher education, when social equality is appropriate at the start of a career, and then the staff independently creates opportunities for professional development.

VI. CONCLUSION

An important direction of minimizing the contradictions in the reproduction of human capital in the health care system is the control of society by institutions that implement social policy. As a result, it should be clear what kind of assistance is intended for all segments of the population, how efficiently budget funds are spent. The administrative bureaucracy of medical institutions should be controlled by medical personnel, especially in the field of resource use and remuneration. In the transition to a value-oriented healthcare system, it is necessary to find effective conflict management tools aimed at converging the interests of the doctor and patient.

In the field of educational activity, it is necessary to ensure compliance with the intensity of labor and the level of wages, which helps to minimize the “occupational burnout” of teachers and improve the quality of education. Given the trends in the development of the vocational education system, with the aim of further lagging behind the leading countries in terms of the proportion of skilled workers who are able to adapt to the challenges of the modern economy (knowledge economy, information or digital economy), the emphasis in the process of organizational change should correspond to the society’s need for the development of specialists’ abilities of active thinking, the formation of human and intellectual capital. Therefore, students who are studying should be the main object of teachers’ work, not formalization of educational activities. This will not go unnoticed – gradually the prestige of teaching activity will revive, the degree of risk for “occupational burnout” will decrease.

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