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Specific functioning of human capital of the medical industry

Abstract: The peculiarity of this study is a comprehensive look at the chosen topic from the standpoint of economics, psychology, and medicine. The qualitative characteristics of human capital in the medical industry differ from those already defined in other industries. The medical industry and human capital are seen as areas of constant development. They require systematic analysis, careful study by scientists, acquisition of new knowledge. This study is aimed at determining the specifics of the functioning of human capital in the medical industry. This will make it possible to analyze the human capital of the medical field and propose directions for its development and improvement of its competence. Characteristic and specific features of the medical field have been studied. It is emphasized that the state of the medical industry is noted as negative. Funding of the medical industry is insufficient. The medical industry works as a single space with close connections between the population, employers, and the state budget. The specificity of the functioning of the human capital of the medical industry is determined by the specified features of the health care system, the internal and external environment of the medical industry. Accordingly, human capital belongs to the medical field and has specific features, functions in an internal industry environment with certain characteristics. The study made it possible to determine the specifics of the functioning of human capital in the medical field in the next points: psychological stress, high degree of responsibility, intensive work; violation of the physiological state of medical personnel; professional burnout; the development of human capital in the medical industry requires the automation of the workplaces of the personnel of the medical organization, the improvement of the level of information support of medical workers; inconsistency in the tasks of structural restructuring of the health care system; low degree of social protection of medical personnel; the need for continuous professional growth of medical personnel; the need to introduce new payment methods; using the joint responsibility of medical professionals and the medical community to each other.

Keywords: human capital, human capital of the medical industry, medical industry, medical personnel.



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Специфіка функціонування людського капіталу медичної галузі

Анотація: Особливість даного дослідження полягає у всебічному погляді на обрану тематику з позицій економіки, психології та медицини. Якісні характеристики людського капіталу медичної галузі відрізняються від стало визначених в інших галузях. Медична галузь та людський капітал вбачаються як сфери постійного розвитку. Потребують системного аналізу, прискіпливого вивчення з боку науковців, набуття нових знань. Дане дослідження цілеспрямоване на визначення специфіки функціонування людського капіталу медичної галузі. Це надасть змогу проаналізувати людський капітал медичної галузі та запропонувати напрямки його розвитку, підвищення його компетентності. Досліджено характерні та специфічні риси медичної галузі. Підкреслено, що стан медичної галузі відзначається як негативний. Фінансування медичної галузі недостатнє. Медична галузь працює як єдиний простір з тісними зв'язками між населенням, працедавцями, державним бюджетом. Специфіка функціонування людського капіталу медичної галузі обумовлена означеними особливостями системи охорони здоров'я, внутрішнім та зовнішнім середовищем медичної галузі. Відповідно, людський капітал, що належить до медичної галузі, має специфічні риси, функціонує во внутрішньому галузевому середовищі з визначеними особливостями. Дослідження дозволило обумовити специфіку функціонування людського капіталу медичної галузі в наступному: психологічні навантаження, висока ступінь відповідальності, інтенсивна праця; порушення фізіологічного стану медичного персоналу; професійне вигорання; розвиток людського капіталу медичної галузі потребує автоматизації робочих місць персоналу медичної організації, підвищення рівня інформаційного забезпечення медичних працівників; невідповідність завдань структурної перебудови системи охорони здоров'я; низький ступінь соціального захисту медичного персоналу; необхідність безперервного підвищення кваліфікації медичного персоналу; необхідність впровадження нових методів оплати праці; використання солідарної відповідальності медичних працівників та медичної спільноти перед один одним.

Ключові слова: людський капітал, людський капітал медичної галузі, медична галузь, медичний персонал.



Introduction

Research on human capital has developed widely in recent years. Allocation into a separate category, classification, institutionalization of the concept attracts the attention of scientists. But experiments at the intersection of sciences become the most attractive.

These are a combination of theoretical hypotheses, practical experience, systematic analysis of the economic, psychological, and medical profile of human capital in the medical field.

“Observations at the world level bring analytical considerations about the progress of humanity beyond the framework of economic growth, firmly assigning a person and his well-being a central place in the politics and strategy of development” (*Jaban et al., 2018:2*).

“Today, the priority in the effective management of resources is given to human capital, because it represents a stock of knowledge, skills, competencies and abilities of people that allow creating private, social and national well-being” (*Freeman & Freeman, 2018*).

The qualitative characteristics of human capital in the medical industry differ from those already defined in other industries. Note that each branch has special and specific differences. There are also general qualitative characteristics of human capital widely applied to all branches of the national economy. But there are narrowly defined features for each industry, and perhaps sub-industry, separately according to their specifics.

Such a pronounced specific branch is the medical field.

Ukrainian developments in the field of human capital use and in medicine, in particular, are significant. They consist of works by O. Grishnova, E. Libanova, V. Mandybura, M. Semikinoi, A. Chuhno, studies by V. Antonyuk, S. Bandur, I. Bondar, S. Doroguntsov, A. Zhukovskaya, T. Zayats, M. Karlin, E. Kachan, V. Kozak, A. Kolot, Yu. Krasnova, L. Kryvenko, V. Lagutina, N. Lukyanchenko, V. Novikova, V. Onikienko, S. Pirozhkova, V. Savchenko, A. Tkacha, V. Yakubenko. Domestic and foreign scientists: S. Antonova, G. Bryadko, T. Brizhit, O. Vasylieva, O. Zhamkova, I. Lomakina, U. Luschyk examined the researches of the market of medical services, improvement of health care management, innovative development of the medical industry, S. Mykhaylova, M. Samofach, S. Stetsenko, O. Chehun, V. Shevtsova, K. Stern, L. Shcherbachenko. The medical industry and human capital are seen as areas of constant development. They require systematic analysis, careful study by scientists, acquisition of new knowledge.

The qualitative development of human capital is considered a fundamental goal of Ukraine as a perfect state. Therefore, this study is aimed at determining the specifics of the functioning of human capital in the medical industry. This will make it possible to analyze the human capital of the medical field and provide proposals for its development and improvement of its competence.

Research results

Human capital is the most valuable and main resource of every state. And Ukraine is no exception. The government considers the development of human capital as one of the most important functions of the state and provides high-quality medical services.

“Creating the necessary basic conditions for a comfortable and safe life, opportunities to realize the potential of citizens is one of the most important functions of the state. It is the high-quality development of human capital that is the basis of the growth of the national economy and the strengthening of Ukraine’s competitive position in the world. The main indicators of the effectiveness of the Government’s work in this direction are an increase in the positions in the human development index, a decrease in the levels of mortality and poverty of the population. To achieve the priority goal – the sustainable development of human capital in Ukraine – a number of transformations in key social spheres, including in the field of health care, are foreseen: ensuring equal access of citizens to quality medical services by creating a new organization of the health care system based on the basis of medical insurance, reforming and improving medical care” (*Government portal...*, 2021).

The medical industry is characterized by the following features:

- the specificity of the manifestation of the results of medical care;
- health promotion, treatment is a priority of the country, a basic component of human capital;
- individual (regarding the person being treated) financial investments are in no way related to the obtained result and are unpredictable;
- the impossibility of objectively assessing the cost of medical services;
- psychological positive grounds for financing this area by a large number of investors;
- there is a large number of investors willing and able to finance – patient, family, enterprise,

- employer, charitable funds, insurance companies, the Red Cross organization, budgets of all levels, international funds and organizations;
- the duration of treatment, rehabilitation, health maintenance, leading a healthy lifestyle can cover a person's entire life;
 - the professionalism and quality of professional staff in the medical field directly affects the effectiveness of medical services received by a person;
 - a large number of donations instead of state funding of the industry;
 - experts believe that 2/3 of the market in the honey industry is the shadow labor market;
 - no taxes are paid from shadow cash flows. Thus, the state is significantly limited in tax revenues and financing of the industry;
 - corruption turned out to be an integral element of the medical industry. “Invaluable human capital is directly involved on two sides of the problem: both as an object of struggle and as its subject. The peculiarity of thinking and mentality of the Ukrainian nation also leaves its mark and promotes corruption” [*Kolomiets, 2019:62; Kolomiets et al., 2021*];
 - imperfect legislation, gaps in the legal regulation of the medical field;
 - shortcomings of organizational and control mechanisms;
 - socio-economic problems of the medical field that have not been resolved over the years;
 - lack of a consistent and systematic approach in the fight against corruption in the medical field;
 - underdevelopment of civil society institutions;
 - civil irresponsibility and low level of citizens' ideology;
 - insufficient transparency of the health care system as a whole, the efficiency of spending budget funds (lack of public and independent examination of the decisions made);
 - the absence of real and effective mechanisms of public participation in the implementation of the integral principle of the state and public nature of the management of the health care system;
 - significant abuse and excess of official authority;
 - a wide field for fraud of a financial nature, committed by a person using his official position;
 - receiving and giving bribes;
 - the working time of doctors is shortened to 38.5 hours per week, for narrow specialists – 33 hours;
 - modern forms of remuneration are aimed at applying individual wages, in its structure 30% permanent payment, 70% variable;
 - in the cost of medical services, the salary is 30-35% (dentistry 20-25);
 - prioritizing social and medical efficiency over economic efficiency (*Lectures, 2020:9; Radieva & Kolomiets, 2019*);
 - a high constant need for the existence and functioning of the industry forever at any time;
 - the possibility of constant development of the industry, endless improvement of technologies.
- Experts characterize the state of the medical industry as negative. “Currently, the Ukrainian

health care system is in a critical state, which is confirmed by the results of international indices (human capital index, human development index, competitiveness index), low average life expectancy, high percentage of the population that cannot receive medical care in full, and low self-esteem of one's own health)" (*Zasorina, 2022:179*).

"The national health care system faced two very difficult problems – a catastrophic lack of resources and their irrational use, the creation and effective functioning of a unified medical space of Ukraine" (*Vasylenko et al., 2022:13*).

SEDA international index (analysis of the sustainability of the country's economic development) (*Andronik, 2019:69; SEDA..., 2018*) for Ukraine, it has a value of 54.8 – quite low. The maximum value reached by the countries – 85.3.

In the conditions of martial law and the presence of COVID-19, the number of beds is reduced, doctors and nurses are involved in the treatment of military personnel and those affected by the disease of COVID-19. Therefore, the traditional processes of the medical field are not given the necessary attention.

Funding of the medical industry is insufficient (*Figure 1*).

Only 50-60% of the required amount of funding comes from the state budget.

State financing of the medical industry is divided into a number of expenses: 60% salary, 30% utilities, 10% patient needs (*Figure 2*).

The medical industry works as a single whole environment with close connections between the population – the employer – the state budget.

In the conditions of the current state of war, high-quality, affordable and timely medical care is provided to residents of communities and displaced persons. Health care facilities function during martial law.

The program "U-LEAD with Europe" provides for the use of the potential of internally displaced persons for the development of medical facilities, the conclusion of agreements with the National Health Care System and the provision of the medical field. Provision of medical and social assistance to displaced persons is being organized. In the meeting places of people evacuated from territories that are under occupation or in which hostilities are ongoing, a rotation of medical and social workers is organized (*Kolomiets et al, 2021; Radieva & Kolomiets, 2019; The functioning of the medical sphere..., 2022*).

The specificity of the functioning of the human capital of the medical industry is determined by the specified features of the health care system, the internal and external environment of the medical industry.

Accordingly, human capital belonging to the medical field has specific features, functions in an internal industry environment with certain characteristics.

The nature of human capital in the medical field is determined not only by the specifics of the medical field, but also by psychological stress, a high degree of responsibility, and labor intensity. Often this is intensive work without a break, 24 hours a day on duty, 48-64 hours of rest. This mode of work violates the physiological state of a person. At the same time, up to 80% of the medical staff (data of the author's study, *Figure 3*) work part-time during non-working hours in other medical institutions.

In turn, such a situation, psychological and physical stress lead to professional burnout. This is another negative feature of human capital in the medical field.

“The health care system is a strategic activity of the national economy, ensuring the reproduction of the population, social guarantees, the health of citizens... In modern economic conditions, medical services focused on the development of human capital are among the most important... They ensure a high level of physical and moral health of population. It, in turn, significantly affects the processes of economic growth not only at the individual level, but also at the macroeconomic level” (*Yanchak, 2018*).

The development of the human capital of the medical industry requires the automation of the workplaces of the personnel of the medical organization, the improvement of the level of information support for the doctor, paraclinical structures and average medical workers.

The high productivity and efficiency of the medical industry is ensured by the labor resource. Inadequacy of the training of specialists to the needs of the practice of the medical field, the tasks of structural restructuring of the health care system, the low degree of social protection of medical personnel lead to a significant deterioration in the quality of medical care with a negative result of the medical service. Based on the above, there is a need to return to the referral of graduates of professional and higher educational institutions, continuous improvement of the qualifications of medical personnel, and the introduction of new methods of payment.

The specificity of the functioning of human capital in the medical field is focused on the use of administrative resources. The system of self-regulation of professional medical activity is not developed. The joint responsibility of medical workers before the medical community and feedback are practically absent. Territorial professional medical associations have not actually been created in Ukraine.

Researchers claim that existing professional medical associations and societies are not empowered and do not really affect the quality of medical care (*Freeman & Freeman, 2018:17; Yanchak, 2018*).

The study made it possible to determine the specifics of the functioning of human capital in the medical industry as follows:

- the nature of human capital is determined not only by the peculiarities of the medical field, but also by psychological stress, a high degree of responsibility, and labor intensity;
- the work regime of the medical staff violates the physiological state of a person;
- psychological and physical stress lead to professional burnout;
- the development of human capital in the medical industry requires the automation of the workplaces of the personnel of the medical organization, an increase in the level of information provision of medical workers;
- insufficient compliance of the training of specialists with the needs of practice in the medical field;
- inconsistency in the tasks of structural restructuring of the health care system;
- low degree of social protection of medical personnel;
- the need for continuous training of medical personnel;
- the need to introduce new payment methods;
- use of the required number of administrative resources;
- use of the joint responsibility of medical workers and the medical community to each other;

- the need to create territorial professional medical associations.

Conclusion

A pronounced specific branch is the medical field. In modern researches, experiments at the intersection of sciences become more and more attractive. These are a combination of theoretical hypotheses, practical experience, systematic analysis of the economic, psychological, and medical profile of human capital in the medical field.

The purpose of the research is to determine the specifics of the functioning of human capital in the medical industry. The medical industry is characterized by a number of features. It was determined that the state of the medical industry is negative, funding is insufficient.

The specificity of the functioning of the human capital of the medical industry is determined by the features of the health care system determined in the study, and the internal and external environment of the medical industry. Accordingly, human capital belonging to the medical field has specific features, functions in an internal industry environment with certain characteristics.

The study made it possible to determine the specifics of the functioning of human capital in the medical industry. This will make it possible to analyze the human capital of the medical field and propose directions for its development and improvement of its competence.



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Appendix

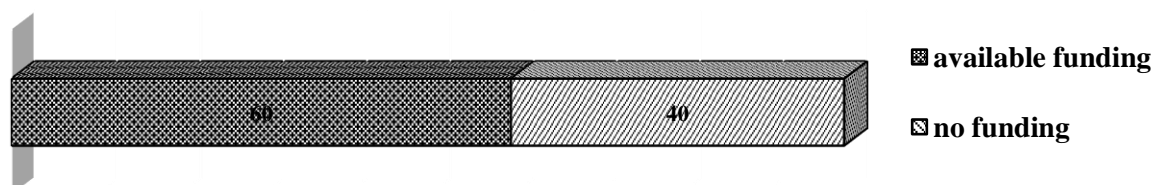


Figure 1. Financing of the medical industry in Ukraine (official statistical sources of Ukraine)

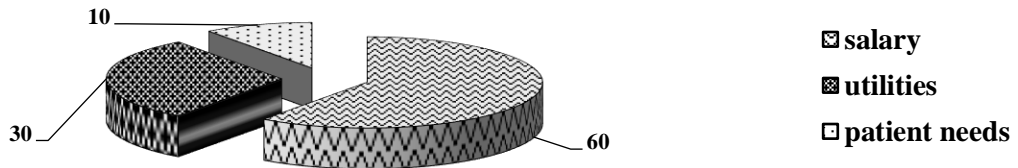


Figure 2. The structure of expenditures of the medical industry of Ukraine (official statistical sources of Ukraine)

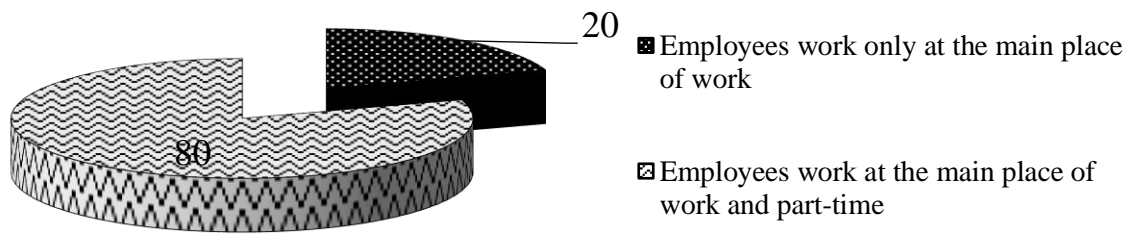


Figure 3. The structure of the involvement of the medical staff of Ukraine (compiled by the author on the basis of his own research)