

Managing the human factor in a virological laboratory. Effective techniques of motivating employees in a team

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Summary

A microbiological laboratory, in accordance with the existing legislation in Poland, is obliged to: develop and implement procedures for each phase of testing the material, starting from taking the sample until the release of the result; conduct both intra – and EQA of testing; ensure adequate managerial staff performing microbiological testing.

Motivating lab employees is a complex process, enabling the excitation and focusing of energy of the aspirations and needs of the employee to perform specific tasks. In the case of medical entities, the proper operation of a diagnostic laboratory is associated to a significant extent with the proper functioning of the entire facility, the main goal of which is to achieve high standards of medical services. The paper describes how the application of economic and non-economic strategies, incentives becomes a factor increasing the efficiency, effectiveness, job satisfaction of individual employees which in return affects the operation of the entire facility, and thus the quality of services provided to patients.

Key words: Management, laboratory personnel, motivating employees, medical diagnostic laboratory.

Introduction

The proper and efficient functioning of the medical facility is a guarantee of fulfilment of the obligation under the Art. 68 of the Polish Constitution[1] dated 2 April, 1997 (Journal of Laws No. 78, item 483, as amended), according to which every citizen has the right to the protection of health and public authorities must ensure, regardless of his financial situation, equal access to health care services financed from public funds. To ensure that these institutions could function in such a way,

they must be based on legal regulations defining their role and tasks throughout the health system.

In recent decades, many countries have noted the reduced incidence of most infectious diseases, which undoubtedly is the result of the development and implementation of programs for prevention, diagnosis, and treatment of infections. In Poland, a National Health Program was founded, whose priorities for 2007-2015 are,

among others: the development of methods and techniques for prevention, diagnosis, treatment of infectious diseases and infections significant from the perspective public health, the construction of efficient screening systems, reducing hospital-acquired infections and antibiotic resistance by introducing the control of these infections, and the efficiency of using antibiotics which is extremely important in the viral diagnosis. In 2013 the nationwide Anti-Influenza program was developed, where the Working Group consisted of the staff – experts from the Influenza Virus Research Institute, National Centre for Influenza of the National Institute of Public Health-National Institute of Hygiene in Warsaw.

A key element of the program of surveillance of the infections and multiresistant microorganisms is a microbiological diagnosis, which was significantly reflected in a Polish legal laws in force. Laws and regulations on this issue determine, inter alia: requirements for microbiological laboratories, rules for the sanitary-epidemiological tests on population and health care facilities, the role of a microbiological laboratory and of a diagnostician in the prevention process, monitoring and limiting infections, especially in hospitalised patients. Medical microbiology, next to medical diagnosis, transfusion medicine, and medical genetics, has been identified as a priority area of laboratory diagnostics [2]. Quality standards for medical diagnostic and microbiological laboratories have been defined [3]. A microbiological laboratory, in accordance with existing legislation in Poland, is required to develop and implement procedures for each phase of testing the material, including: commissioning the tests, collecting and transporting samples, receiving and storage of materials for testing, testing methods, giving back the results, and quality control of microbiological tests performed. These procedures should be made available to base orderers with the confirmation of acknowledgment with them. Providing procedures to orderers other than base ones, is carried out at their request. Laboratories are required to adapt their activities to the requirements of the Regulation until 31 March 2009. For the proper functioning of the laboratory a laboratory manager – specialist microbiologist is responsible. According to the Regulation of the Minister of Health of 21 March 2008 [4] persons that do not meet this

condition, on 30.03.2008, employees for the period not shorter than one year before the entry into force of the Regulation, may remain at their position until 31 December 2009. In accordance with the Act of 23 June 2006, amending the Act on laboratory diagnostics and the Act on professions of a doctor and dentist [5] the following persons are authorized to perform laboratory diagnostics:

- laboratory diagnostician;
- a doctor authorized to perform his profession and having specialization in the field of laboratory diagnostics;
- a doctor authorized to perform his profession in the course of specialization, a technician or bachelor in medical analytics – these persons work under the supervision of a laboratory diagnostician.

A laboratory diagnostician is a person who graduated from majoring in medical analytics and obtained a master's degree. Persons, who have completed university education in other fields (M.Sc. in biology, pharmacy, biotechnology, veterinary surgeon), must take post-graduate training in Medical Analytics, confirmed by an examination, or obtain the title of a specialist in the field of microbiology. Persons, who are authorized to perform their profession of a laboratory diagnostician, on the day of entry into force of the Act retain their right, and those who started postgraduate education before the entry of the Act into force, complete it according to present rules.

The process of team management

In practice, the process of management of any organization is based on five basic functions:

- planning – defining the organization's objectives and activities according to a certain method, plan or logic, and then deciding on the best way to achieve the assumed objective;
- organizing – is the process of organizing, allocating, coordinating activities and resources to the individual members of the organization;

- employing – manager employs people at various positions in the company, who have appropriate qualifications and aptitudes;
- managing – the process of managing and motivating staff in the organization;
- controlling – the final phase of management, the process aiming for assurance that the actual activities conformed to the planned actions, the observation and systematic introduction of adjustments to current activities to facilitate the achievement of the objectives [6].

Treating the employee (in accordance with the principles and the idea of human resource management) as the most important resource of the company / team, and his work as a product that is designed to meet specific needs, became the basis for the creation of effective motivation programs.

Managing people (Human Resources in the organization, such as a company) is an integral part of the human resource management process and is focused on providing the expected efficiency and productivity of work through purposeful shaping the behaviour of individual subordinate employees and of entire teams [7].

The human potential of the organization (people, employees, staff, human capital in a team) – is primarily an adequate number of employees and the compilation of the various components that characterize them, in particular:

- knowledge (e.g. professional, general);
- individual predispositions (e.g. interpersonal, intellectual);
- skills (such as communication, cooperation, flexibility, risk taking, adaptability to change);
- intrinsic motivation (e.g. goals, values, moral norms, aspirations, assertiveness, enthusiasm);
- physical aspects (e.g. health, age, living situation, performance or handicap).

Human capital of each team consists of individual human capital of its members. With

appropriate and adequate (professional) management of that human capital, it can be greater than the simple sum of the individual capitals of individual members. This is achieved by using the synergy effect (due to the interaction of different and complementary team members the benefits of work are greater than the sum of their separate actions). Human capital of a team is, therefore, the sum of the competence of the manager and the subordinate staff [8].

Teams of people

Teams are usually part of a larger whole (e.g. an organization, an enterprise, a company), and they are created in order to increase the efficiency of individual employees and the entire organizational structure. Therefore, building, maintenance and improvement of teams and teamwork is intended to achieve better outcomes set to the given organization [9].

A team is most often defined as a group of many different people with complementary skills (they have the appropriate skills needed to perform a specific task), working together to achieve common goals, with a sense of mutual responsibility and usefulness [10] The team as a group is also defined as two or more persons mutually interacting and interdependent, cooperating (bottom-up or top-down) to achieve specific goals [11] The team is not a mere gathering of individuals, because, as a rule, three basic conditions should be fulfilled, namely:

- people in a team are interdependent by mutual interactions;
- team members are psychologically aware of one another, they perceive one another as a team [12].

In addition to teams, in organizations operate groups of employees who work together, but such communities do not fulfil all the above conditions, or meet only some of them, and the cooperation between such employees is mainly sharing information necessary for individual employees to implement the tasks assigned to them individually. Working groups are not engaged in work that requires joint effort. The results of their work are usually the sum of individual contributions to the work of individual

members of the given group, and there is no visible effect of synergy, which is characteristic of a typical teamwork.

The team is created in a specific purpose. Each team member should know and understand the objectives and targets set for the group. Team members need to know whether the aim of their work is to develop recommendations for a company policy or the implementation of a specific strategic plan. Whether they need to solve the current problem with the quality or conduct long-term work in this area. Whether a new product is developed, or whether a solution should be found to a specific problem, which has just appeared. Teams often have the freedom to define the rules for the functioning of the group and how to implement the task. However, even in such a case, the team still has to obtain the approval of senior management, which at the same time will provide support for the team. Management commonly sets some limits of autonomy for decision making by the staff. A team of employees is defined as a kind of a social system because it consists of people, or as a socio-technical system, since apart from people, to the efficient and effective operation, the needs appropriate tools. The team as a system is thus:

- a subsystem, as it is always possible to indicate a superior system (e.g. the whole organization, a company);
- an open system, which actively cooperates with the environment; the access to a team should not be limited;
- a hierarchical system; inferiority and superiority can be seen in the team action, such as employee relations and task relations between the leader and the individual members;
- an active system (internally); interaction between members is necessary to carry out the tasks;
- a system of planned actions, where an indispensable tool is scheduling the task;
- a system of situational actions; there may be unexpected spontaneity in a team, sometimes dependent on the situation [13].

Economic motivation in human resource management in the medical diagnostic laboratory

In the process of motivating employees it is not only a laboratory that plays a big role, but also economic incentives, at the head of which is the remuneration paid for work done under the legal employment relationship. Remuneration for work is an essential provision of the employer as part of the employment relationship according to its type and quantity according to pre-established rates in the institution (Labour Code) [14]. The role of a remuneration is reflected in its features. The most important are the four basic features of remunerations: income, cost, social, and motivational. In addition to these features, the market feature of a remuneration can be mentioned, which consists of attracting employees to a virological laboratory and keeping them in the laboratory. The remuneration is something more than a sum of money and benefits under the terms of employment. According to the concept of HMR Human Resources Management, the concept of remuneration also relates to issues such as the provision of career development – in the case of the laboratory staff it will include meeting the requirements and obtaining the right to practice the profession of a laboratory diagnostician, or meeting the requirements of obtaining the title of a professional specialist in the field of microbiology. In addition, it related to creating the possibility of positive mutual relations between the management of the laboratory and subordinates, as well as safety, and respect, and recognition of colleagues. Remuneration as an incentive for the employee shapes his attitude towards work, and the relationship between wages affect human relationships in the workplace. It is also one of the criteria for assessing the social value of laboratory employees and the source of its prestige. The remuneration also includes the evaluation of an employee by others, e.g. the managers of a diagnostic laboratory. The proper wage policy is one of the most effective tools for managing human potential of the given medical facility. An effective system of remuneration should reward actions that lead to achieving the objectives of laboratories and implementation of specific tasks. In the modern economy in medical laboratories the demands increase for the knowledge and skills of analysts, therefore, the

management should focus their attention also on developing the potential of employees. Their activities include:

- 1) encouraging laboratory staff to seek opportunities to acquire new skills;
- 2) providing internal and external training needed for the current position in the laboratory;
- 3) The introduction of such programs, the aim of which is to share knowledge among the staff such as a virological laboratory and groups of employees from other bacteriological or parasitological laboratories;
- 4) basing the structure of positions on the requirements concerning the competence;
- 5) rewarding competence and personal development [15].

A new interesting solution can be the flexible employee benefit plan, called the cafeteria remuneration. The development of this form of remuneration results from the intention of the entire medical facility to make the remuneration more flexible depending on work time, increase of motivation and keeping employees which are important for the institution. The cafeteria forms of remuneration depend on the individual choice of the appropriate elements of remuneration in kind by the employee himself. Monetary value can be replaced for example by: goods in kind, additional days of leave, social security benefits, flexible working hours, training, sporting events, tours [16].

The non-economic motivation in human resource management in the medical diagnostic laboratory

In lexical terms, motivation is understood as an intermediary process or internal state of the body, which stimulates or gives energy to activities aimed at obtaining a specific objective [17]. Motivation to work in the viral type laboratory is the process of activating the behaviour of the lab assistant, which makes him, by performing specific diagnostic actions directed at the patient, meet his own individual needs. An appropriate

motivation of laboratory employees affects in an indirect way the implementation of the objectives and targets of the whole medical facility. In order to get acquainted with the essence of motivation among the staff, it is necessary to present the basic concepts of motivation, which include:

- 1) Models focused on the needs;
- 2) Theory of justice;
- 3) Model of expectations;
- 4) Reinforcement theory;
- 5) Content theory;

The first of these models focuses on identifying the needs of a laboratory employee that are at the basis of all human motivation. According to the Maslow's concept, only unrealised needs exert influence on human behaviour, and the satisfaction of higher needs (e.g. the need for prestige) is possible only if the needs located on the lower level (e.g. the need to belong to a group of laboratory diagnosticians) are satisfied [18]. This system is not static. The hierarchy of needs can be reversed when an earlier satisfied need is deprived. In the course of the development of the personality of a lab employee, this system can be changed, however, an analyst will more frequently pay attention to the needs of the higher order, such as recognition and self-esteem.

The author of the two-factor theory, F.I. Herzberg – distinguishes two groups of factors influencing satisfaction and dissatisfaction with one's work [19,20]. These are hygiene factors, which in themselves are not an end, but enable the implementation of pre-defined objective, are external and are not subject to the employee control, and may be the primary reason for the lack of satisfaction with work, and are a widely understood component of the work environment (in the case of a laboratory it will be the remuneration, job security and stability, relations with superiors of the laboratory, as well as personnel policy of the whole facility). The second factor are the motivational factors – they are targeted to meet the higher needs and have internal feature. They should be considered in terms of a sense of satisfaction from one's work, they include striving for the achievement of objectives, the certainty of

being appreciated in the effort put in the work, the possibility of promotion and development, a sense of responsibility. Meeting those needs even to the slightest degree triggers positive motivation to work. The impact of these factors on an employee may be different, because each person can react differently, and subjectively perceive specific information.

The theory of justice determines the motivation for work, which is determined by the perception of one's effort put into the work carried out, while constantly comparing this work to the reception of awards by other employees. A representative of this trend was, among others, J. Stacy Adams, who noted that people strive for justice of the awards granted to them and obtained in connection with their achievements at work [21].

Employees who feel unfairly evaluated may in different ways alleviate the inequality [22] for example, in the case of the laboratory staff, it may be a decrease in their performance of work, or lack of desire to improve their skills in the areas particularly sensitive from the point of view of the laboratory.

According to the expectancy model, the behaviour of a given person depends on the expectations, values that the person can obtain through work. The theory of V.H. Groom assumes that the motivation to work is a result of the expected results of the behaviour and expectations that these results can be achieved [19]. It includes: value, attractiveness of the award, the belief that certain behaviour will bring the expected result, as well as expectations and the probability of carrying out the estimated effort.

The reinforcement theory originates from the behavioural approach. It is based on the assumption that current human activities result from the previously learned behaviours linked with pleasant or negative consequences. The main author of this theory is B. F. Skinner, who noticed that the behaviour of the employees can be modified by reinforcing of, for example, the rewarding of expected responses, and unlearning of undesired reactions, such as ignoring, punishing [20,23]. Research on the effectiveness of work shows that, for experienced employees positive reinforcement is more efficient and better perceived.

The content theory is the trend, which shows two opposing attitudes of people towards work, represented by the theories of X and Y [20,24]. According to the first theory, an individual by its nature does not like to work, is lazy, has a low level of professional ambitions and, therefore, will seek to avoid duties and take responsibility for them. In order to improve the efficiency of such employees, it is necessary to introduce strict supervision and control. Such an organization, e.g. a laboratory, must have a strong hierarchisation, formalization, and management rigor.

According to the Y theory, the effort of work is as natural and necessary for a man as fun and recreation. An employee takes a decision on his own about involvement in the implementation of the tasks assigned; he can make decisions independently. The activities of such an employee are affected primarily by higher needs. A laboratory, operating under the Y theory assumptions, can better exploit the potential of the laboratory staff: of laboratory diagnosticians, specialists in various laboratory fields, as well as technical staff, saving time and money associated with strict control. Whereas, employees have a sense of autonomy, which favours greater involvement in the laboratory work.

Summary

Motivating employees in a team is primarily targeting them for specific actions that the team implements under the leadership of the leader. Well motivated employees formulate their objective well and take actions that will help them achieve this objective according to their expectations. People are motivated mostly by unmet needs (biological, social, achievement, recognition, development, power). The diversity of these needs makes it impossible to develop a general prescription for all the people working in the team. People must therefore be treated as individuals who have different needs and different goals [24].

Motivation is largely used for increasing the involvement of employees in the work to achieve the goals and tasks and to function effectively and collaboratively in a team. Not involved and not motivated employees more frequently stay on sick leaves than motivated individuals. In a team, where there is a motivating atmosphere

among employees, absenteeism is, on average, seven days in the year. Lack of commitment to the work generates at least ten days of absence per employee. Practice shows that an engaged employee in a team is the one who speaks positively about his team and the facility, in which he performs the work, who associates with the team his future career and is motivated to give more of himself in his daily work than the standard responsibilities specified. Such an employee is aware that his individual actions will contribute to the success of the team in which he operates and performs tasks [25].

A GUIDE TO EFFECTIVE MOTIVATING OF LABORATORY EMPLOYEES

Set a target of excellence – give challenge to people

Inform your team

- Do not make a secret of the basic information;
- Information is needed by people to better work;
- The more information about the work – the greater the motivation to work;
- Agreeing on the objectives to be achieved and inform about the results.

Praise people

- Skilful reward is invaluable – people who are happy with themselves, achieve good results;
- Find out what motivates your people;

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- Ways to give praise are limited only by your imagination;
- Reward team collaboration;
- Notice special achievements and praise them, do it in public;
- Do not speculate failures of your subordinates, look for the good stuff in them;
- Delegate powers;
- Involve the team in setting the policy of actions;
- Delegate powers, it triggers creative thinking, hidden skills;
- Ask for help, use the knowledge and experience of the team;
- Listen to the people, let them know that you rely on their opinion;
- Demonstrate loyalty to the team, do not usurp someone else's ideas;

Praise in public!

Reprimand one-to-one, and immediately after the occurrence!

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