



Motivation among Physicians in Greek Public Health-Care Sector

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Authors' contributions

This work was carried out in collaboration between all authors. Author AT managed the basic literature searching and wrote the first draft of the manuscript. Authors PS and PB contributed to the systematic selection of the literature and revised the manuscript. All authors read and approved the final manuscript.

Review Article

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ABSTRACT

Aims: The aim of this study is to examine the issue of motivation of physicians employed at Greek public hospitals.

Methodology: Through the review of relevant literature, an attempt to examine the trends in this issue in Greek public health care sector has been made. Various electronic databases were searched by the authors and through systematic selection 41 scientific articles, studies and electronic sources were identified, that this literature review is based on. The selection was based in two different criteria : for the theoretical background of the issue of motivation, articles and books that considered to be fundamental for the formulation of the subsequent theories were selected, while for the relevant to the main research question literature (motivation in Greek physicians) the most recent data were selected.

Results: Motivation of doctors is a highly complex issue that presents an intense differentiation compared with other aspects of staff handling. According to the literature, financial incentives cannot by themselves motivate physicians. On the contrary, the development and utilization of incentives that are associated with achievement of goals, possibility of professional development and recognition in the workplace, appears more effective.

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Conclusion: Proper diagnosis of the needs of the doctors in the hospital and the selection of appropriate techniques, as these arise through various theories of motivation, can help in the efficiency and efficacy of health care services. Especially in a time of prolonged economic downturn, while the health needs of the population are increased and budgetary constraints compound the difficulties of their effective coverage, searching for administration models that will be able to take full advantage of material and human resources are inevitably in the spotlight of our interest.

Keywords: Motivation; physicians; human needs; public hospital; incentives.

1. INTRODUCTION

Despite the great technological evolution, human resource still remains the basic factor of success of an organization's objectives. Particularly in the case of the hospital, which is characterized as a "labour intensive process", human resources are the most important element of production and distribution of health services [1].

A crucial factor that determines the effectiveness of the whole system is the quality of medical services. Therefore, the successful administration of the doctors is one of the greatest challenges for the management process of the hospital.

A fundamental element for achieving this objective is the formulation of an effective employee motivation. Through this, human behavior is directed and maintained in the desired direction of success in the organization's objectives [2].

The identification of the motivation factors of physicians has always been a major challenge. However, at times of economic crisis it has become a dire necessity, in an effort to safeguard and improve medical effectiveness, economic efficiency and social equality.

This is especially important under the pressure of current conditions, as on the one hand a dramatic reduction of public expenditure on health is planned, despite the fact that it is already one of the lowest among the Organization for Economic Co-operation and Development countries, and on the other hand, a dramatic increase in the health problems of the population can be noted [3].

Financial crisis has posed major problems to population's health in Greece, while a bulk of austerity measures has been implemented in the health sector. A reduction in public hospital beds from 35000 to 33000, which has been planned during 2011, is in process [4]. At the same time savings policy has brought a freeze on hiring new physicians [4].

Meanwhile, lack of income has led into a rise in admissions to public hospitals of 24% in 2010 compared with the previous year, and 8% in 2011. At the same time a 30% decline in admissions to private hospitals has been reported [5].

Only in 2011 Greek health care expenditures have fallen from 25 billion € to 16 billion € (about 36%) [6].

Under these circumstances, ways to improve the efficiency and efficacy of the public health sector must be found, without breaking the austerity rules which have been imposed by the European Union and the International Monetary Fund. Better utilization of the existing

sources, especially the human resource, consists a great way to empower the capability of the health care sector. Motivation is a key tool in this direction.

In this article, an attempt will be made to examine effective motivation policies in Greek public hospitals. Starting with the theoretical background, the delineation and presentation of the basic patterns of motivation will be attempted. Then, in summary form, some basic conclusions, as those emerge from literature and contemporary research, focusing primarily on Greek reality, will be presented. Finally, a series of proposals that could contribute to effective empowerment/motivation of doctors will be examined.

2. MOTIVATION IN THE WORKPLACE-THEORETICAL BACKGROUND

Motivation is defined as the process that accounts for an individual's intensity, direction and persistence of effort toward attaining a goal. It is considered as one of the most important parameters of the effect of output, and a central administrative function [1].

Motivation factors have a great variety among different people, as with the same person over time. They are determined by age, life conditions, career level and ambitions. At the same time they are affected by elements from the external environment, such as variables of micro-social (labour unit) and macro-social (economic recession e.t.c.) areas [7].

Traditional ways of motivation were connected with economic incentives (productivity-fee connection), social incentives (pleasant working conditions), incentives relating to the nature of the work (ways to make it more interesting) and reinforcement of desired behaviors [1,8].

The gradual awareness of the limitations of traditional views led to the search for new models. The theories of human needs were thus developed, based on psychology (Table 1).

In accordance with the basic principles of Maslow's theory, needs are hierarchically structured and each level works as an incentive to the extent that has not been covered. In the pyramid of needs physiological needs are preceded, followed by safety needs, social needs for love and belonging, the need for self-esteem and finally for self-actualization. The hierarchy of human needs model suggests that human needs will only be fulfilled at one level at a time. So motivation succeeds when the effort of coverage follows the specific range (self-realization, for example, may not act as an incentive for someone without income) [9,10].

In Herzberg's two-factor theory, the basis of motivation consists of incentives, which are related to the nature or the object of the work (motivation factors), and disincentives, which are related to the working environment (maintenance factors). Here we have a separation of these factors into those that motivate and those which maintain without leading to dissatisfaction [11].

According to McClelland's acquired needs theory, there are three main acquired motives common in all people: for achieving goals, affiliation and power. Everyone has the will of their coverage and the difference lies in the degree that each one characterizes every different person individually [12,13].

In Vroom's expectancy theory, motivation takes place on the basis of two factors combined, that is, preference for a result, and expectation that a behavior will lead to this. Faced with

two alternatives the employee will prefer the one that will lead to something that is more desirable and which is more likely to happen [14,15].

In Adams' equity theory, the attitude of the employee is affected by a sense of justice. Considering the relationship of what he is offered to what he offers, he proceeds in the comparison of his reward to the effort he has made, as well as to the comparison of his reward to the rewards of others. If he feels that he has been wronged, he will shorten his performance; when there is a sense of justice, he will try to increase the quality and quantity of his work [16].

A series of other, mainly psychological, theories have been developed. According to Skinner's reinforcement theory, based on the model of contingency dependent learning, behavior that is reinforced is more likely to recur. The reinforcement may be related to fee, working environment, increased control over work, social recognition, etc. [17].

Table 1. Motivation theories

	Theory	Basic Elements
Maslow [9,10]	Theory of Needs	Pyramid of needs : <ul style="list-style-type: none"> • physiological • safety • love and belonging • self-esteem • self-actualization
Herzberg [11]	Two-factors Theory	Motivation factors (related to the nature of the work) Maintenance factors (related to the working environment)
McClelland [12,13]	Acquired Needs Theory	Main acquired motives: <ul style="list-style-type: none"> • achieving goals • affiliation • power
Vroom [14,15]	Expectancy Theory	Motivation=Valance × Expectancy
Adams [16]	Equity Theory	Individual's Outcomes/ Individual's Own Inputs = Relational Partner's Outcomes/ Relational Partner's Own Inputs
Skinner [17]	Reinforcement Theory	Contingency Dependent Learning (Behavior that is reinforced is more likely to be repeated)
Murray [18,19]	Achievement Motivation Theory	Behavior is the result of the conflict between motivation for success and failure avoidance motivation.
Locke [1]	Goal Setting Theory	Specific goals lead to higher levels of performance, while goals that are hard to achieve are linearly and positively connected to performance.

Murray's achievement motivation theory argues that the operation mechanism of human motivation follows the type of conflict between two trends. The first leads to involvement in a project (motivation for success), and the second leads to the removal of a project (failure avoidance motivation). People often choose to do something not only because they are seeking success, but also because the probability of failure in what they have chosen is minimal [18,19].

According to Locke's goal setting theory, if you want to drive people into a behavior, you must change the characteristics of the objectives in order to make them more attractive. By taking this into account, modern management gives emphasis to the formulation of clear, realistic and acceptable objectives, enhancing the involvement of employees in their configuration [1].

A successful motivation policy relies on effective diagnosis of the needs of employees and the choice of appropriate techniques that arise from the various existing theories.

3. MOTIVATION AMONG MEDICAL STAFF IN GREEK HOSPITALS- CONTEMPORARY STUDIES

Motivation policy in Greek public hospitals is largely limited by the strict legislative framework, which regulates a number of important issues such as salaries, prospects of professional development etc.

Wages of the doctors are determined by State law. Therefore an important motivation tool does not lie in the hands of the administration heads.

Rigid criteria also exist for issues related to career advancement. The basic condition of professional development is previous experience. However, the participation of senior and middle executives of the medical service in election bodies enables them to intervene in professional development [20].

In Greece, there has not been much research done related to motivation among physicians. However a literature review of contemporary research, referring to medical potential, leads to some key conclusions.

A study of Kontodimopoulos et al. [21] in 13 Greek hospitals showed that the most important factor for doctors is the "achievements" factor, which refers to intrinsic motivators such as pride, appreciation, respect and social acceptance. More years in the same hospital and in the same position (especially a managerial position) meant higher motivation by achievements. The incentives associated with "remuneration" follow and seem to be highest for those who are higher in hierarchy. As for the "co-workers" motivator, which refers to working relationships with supervisors and colleagues as a source of satisfaction, it seems to be evaluated higher by those who have been working for more years [21].

In a study of Niavis [22] at a University General Hospital of Thessaloniki, the most important motivation factor among physicians found to be the "achievements", which followed by "co-workers", "remuneration" and "job attributes". The results were in coherence with the general theories of motivation, which identify as motivating both economic and non economic factors, while the ranking of human needs off Maslow's theory was not confirmed.

Similarly, in another study at the public General Hospital "Sotiria"[23], "achievements" was proved to be the strongest motivator, especially for physicians who were over 55 years. "Remuneration" and "co-workers" followed, while "job attributes" was proved to be the weakest factor.

On the other hand, the results of another study, which carried out at the General Hospital of Kilkis [24], showed that the most significant motivation factor was "co-workers", which was followed by "achievements" at a close distance. "Job attributes" and "remuneration" followed in the particular study.

The factors on which motivation is based are strongly linked to job satisfaction, which is defined as a positive emotional state, resulting from the appraisal of someone's job or job experience [25]. Job satisfaction is divided into internal and external. The first one refers to the content of the work and the second to external conditions [26].

To be sure, motivation differs from job satisfaction. If motivation is the generator for someone's work, satisfaction can be seen as the refueling station for that generator [27].

What is of importance is that professional satisfaction of physicians is one of the four most crucial indicators of quality of care, together with the health situation and the level of satisfaction of patients, and the cost of health programs [28].

A study by Alexias et al. [29] for job satisfaction among physicians in a public hospital showed that it was higher among doctors over 51 years with professional experience of between 16-25 years. At the same time, those of older age, who were higher in hierarchy and with more professional experience, were less emotionally exhausted than their younger colleagues. Increase of job satisfaction leads also to an increase of personal achievements, while it could help to burnout prevention.

A study of Kaleas and Platsidou [30] showed how specific factors, such as the relationships with co-workers and the variety of work, cause particular satisfaction to physicians. What seemed to be of importance was the effect of demographic factors, such as age and marriage status. In general, job satisfaction is inversely correlated with emotional exhaustion and positively correlated with personal accomplishment.

Meanwhile, pointing out the importance of different needs in physicians can also help to the formulation of an effective motivation policy. In a study about the evaluation of motivation in physicians and nurses in Patras hospitals, need for "professional growth" was proved to concern the majority of doctors (78,53%) [31]. Continuing training and acquiring specific knowledge through the participation in post-educational programs seems to be a priority for physicians.

Similarly, in a study which was conducted in health care centers of the 6th Health District of Greece, needs for recognition and personal growth were found to concern most of the primary care physicians (67,9%) [32].

The results of many studies confirm that employees are not motivated solely and mainly by money, which seems to be a common view; and this attitude does not occur specifically to the reality of the Greek health care system.

In a study by Lambrou et al. [33] of a Cyprus public hospital, job satisfaction and motivation among physicians seemed to be related to achievements, appreciation, respect and social acceptance as a result of work and working relationships. Especially the last one occurred more strongly among doctors compared with other professionals.

The importance of intrinsic factors in the effective motivation of doctors has been reported in many researches and studies that are related to many and different socio-economic environments. Studies in Jordan and Georgia reported self-efficacy and pride as important motivational factors. Research in two African countries, Benin and Kenya, stressed the importance of non-financial parameters, while a German study also showed that intrinsic factors are more important than remuneration [33].

The above lead us to some key conclusions. Intrinsic factors seem to be the most important motivation elements. From the internal factors which mainly separated in "job attributes" (motivators that are related with certain work characteristics like contribution to the process of decision making, creativity and use of skills) and "achievements" (pride, recognition, value and social acceptance), the second category is proved to be the most important. At the same time, the need for continuing training, which leads to professional growth, seems to be evaluated higher by doctors.

Of course further research is needed since the focus of previous studies is limited. However the above first conclusions could help hospital management to increase overall performance both individually and organizationally, formulating an effective motivation policy.

4. APPLICATION OF MOTIVATION TECHNIQUES TO PHYSICIANS IN GREEK HOSPITALS

The effective motivation of doctors depends on many factors. The theoretical discussion around this topic has resulted in numerous theoretical shapes, each of which is a useful tool for administration [1].

By utilizing the theory of two factors of Herzberg, administration authorities have initially to eliminate disincentives and then to motivate positive ones, through incentives. Herzberg [11] argued that extrinsic factors are more closely linked to job dissatisfaction than satisfaction. For example, although a high salary does not make a job satisfying by itself, a low one may lead somebody to feel dissatisfied.

Extrinsic factors that may be important to physicians, such as the flexibility of scheduling work hours and the reinforcement of the sense of importance, must be in the centre of the interest of administration authorities. On the other hand there is no doubt that the first priority for doctor's motivation is to accentuate the intrinsically rewarding aspects of the work [34].

Some of the most important intrinsic factors for physicians, as they are derived from literature, are intellectual challenge, opportunities for professional growth, sense of competence in skills, autonomy, relatedness to others and self-expression [27].

An important point that can strengthen all the above, while mediating both in the development of responsibility, as well as in scientific and professional development, is the continuing medical in-service education. Case discussions, meetings to discuss published medical papers, workshops, conferences and seminars which can be organized by the

hospital, constitute an effective continuing learning experience that reinforces interest for the daily clinical practice.

The medical profession requires continual training. The opportunity for scientific research, and further education and specialization, motivates physicians by contributing in excess to the daily routine and enhancing the extroversion of the hospital.

Motivation is differentiated, depending on the level of the doctors in the hierarchy. In the case of clinical leadership, the dual role must be taken into account. On the one hand there is the role of the physician, who is entrusted with clinical care, and on the other the role of the director, who is involved in a set of processes related to organizational management issues [35].

The administration authorities of the hospital have to know the peculiarities of each department, respond promptly to requests that arise and recognize personal achievements. Cooperation with all physicians, observance of commitments and actual interest for every day problems are required. Under these circumstances the function of motivation and the internal service quality are stimulated through the empowerment of the role of clinical directors [35].

In order to empower physicians who do not hold managerial posts, emphasis should be placed on improving the conditions of cooperation between doctors of different specialties, on defining clear tasks and objectives, and on rewarding achievements. In this direction the predictions of "civil servants code", which includes granting of "moral rewards" (honorary title, praise, etc.) for exceptional acts, can be exploited [36].

Positive recognition, which is not awarded frequently enough, is of great importance as well. Often, the prevalent attitude among many senior physicians is that junior doctors should perform all the menial tasks without expecting a word of gratitude because "it is their job to do so." Recognition even for the routine job when is well done can strengthen job satisfaction, motivating positively.

In addition, individual differences should be taken into account. Useful tools in this direction are the theories of McClelland and Vroom: managers must be able to diagnose the most important needs for every doctor (achievement of goals, affiliation, power) and to adapt the specific tasks and additional responsibilities on a more personalized level, based on personal expectations and preferences [12,15].

Another important factor is the creation of a sense of justice. Equal opportunities of access to continuing education and the preservation of the conditions that the law sets for working hours in order to avoid unfair work intensification must be ensured. In this field the crucial role is played by the department and clinical directors who are in charge of the day-to-day management decisions.

Finally, the assurance of participative procedures is of great importance. Although the strategic objectives are set by senior management, the particular objectives are shaped through the involvement of all levels of the clinical hierarchy [37].

A useful tool in the direction of reinforcing participation procedures is the implementation of Quality Circles, which consists one of the most promising approaches for empowering motivation process in the working place [38]. Quality Circles are groups of employees

performing similar duties, who meet at periodic intervals to discuss work-related issues and to offer suggestions for improvements [39]. Through them employees (clinical doctors in our case), with the participation of managers and directors, may have the chance to locate organizational problems related to every day clinical practice, explore causes, recommend solutions and take corrective action since they have the authority to do so [40].

Through this participatory management technique, doctors can be motivated by their contribution in the process of decision making, developing their creativity and enhancing decision making skills. At the same time, management authorities' awareness of employees' job related concerns is getting better.

Use of observations and personal acquaintance of all doctors strengthens the sense of self gravity and enhances the consistency of the medical group. Besides, open channels of communication contribute to preventative treatment of individual problems and improve the employee's job satisfaction sense.

The theoretical background of the above motivation tools is provided in Table 2.

Table 2. Theoretical background of motivation techniques

Motivational Interventions	Theoretical background
Taking care of extrinsic factors (flexibility of scheduling work hours, reinforcement of the sense of importance)	Two-factors Theory (Herzberg)
Taking care of intrinsic factors (intellectual challenge, opportunities for professional growth, sense of competence in skills, autonomy, relatedness to others, self-expression)	Two-factors Theory (Herzberg)
Differentiation of motivation techniques depending on the level of the doctors in the hierarchy	Acquired Needs Theory (McClelland)
Adaption of the specific tasks and responsibilities on a more personalized level; personal expectations and preferences taken into account	Acquired Needs Theory (McClelland) Expectancy Theory (Vroom) Goal Setting Theory (Locke)
Creation of a sense of justice. Equal opportunities for physicians	Equity Theory (Adams)
Continual training	All theories
Positive Recognition	Theory of Needs (Maslow) Equity Theory (Adams) Reinforcement Theory (Skinner)
Reinforcing participation procedures	Two-factors Theory (Herzberg) Expectancy Theory (Vroom) Equity Theory (Adams)

5. CONCLUSION

In a time of economic crisis, the public hospital confronts funding reduction and, simultaneously, increasing requests. During the last year imports in public hospitals have increased dramatically, due to the growth of health problems of the population and the

reduction of disposable income, which used to allow for the alternative of privately funded services [41].

This leads to the necessity of utilization of all resources, in an effort to improve the efficiency of the system, the cornerstone of which is the improvement of the efficiency of human resources.

As far as the doctors is concerned, the research data suggests that the motivation factors are fundamentally endogenous, and at a lesser degree economical [40].

Public hospital administrators are called to strengthen these factors in order to shape a motivation policy which allows successful adjustments, without additional economic cost, which is the main limitation of the era.

The knowledge of theoretical approaches and the study of research data can lead to good practices. The development of theoretical tools, the application of appropriate techniques, total and personalized interventions at different levels of the hierarchy of the doctors, the systematic formulation and the implementation of interventions and realistic approaches, can all lead to a comprehensive motivation policy with visible results.

CONSENT

Not applicable.

ETHICAL APPROVAL

Not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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