



**MASTER DEGREE IN HEALTHCARE MANAGEMENT**

**MASTER THESIS**

**MOTIVATION AND MANAGEMENT OF WORK-RELATED  
STRESS IN HEALTHCARE PROFESSIONALS: THE CASE OF  
GREECE**

**BY**

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## **Prologue**

This work was carried out within the studies concerning my Master degree in "Healthcare Management", in the University of Macedonia. The exhalation was conducted at a difficult time for the Greek society and more generally for the whole planet in the midst of the COVID-19 pandemic, when all healthcare professionals were called upon to challenge themselves and their strengths in order to deal with the pandemic with the best possible results. Access to hospital units for data collection was prohibited so the research was carried out using only remote methods.

I would like to thank all the participants who have devoted some of their extremely limited time to complete the questionnaire of the research, as well as my supervising professor Mr. Michail Dimitrios.

This paper is an attempt to identify the relationship between work-related stress, job satisfaction and motivation among workers in healthcare units in Greece. The relationship between work-related stress (workload, tensions, conflicts), mental health, including work satisfaction and motivational procedures applied to the organization, is being investigated.

The problems caused by work stress are particularly evident in countries experiencing significant economic and social changes. It is of major importance that specialized psychologists, managerial executives and government policymakers fully understand the range of work-related stress, in order to design and implement the necessary interventions and legal frameworks to safeguard workers' health and safety.

The modern working environment is characterized by increased challenges and opportunities to exploit. Management must ensure that quality and productivity levels are improved, workers' skills are developed, staff diversity is managed in parallel with stimulating innovation and adapting to the new requirements of the global market. Other challenges of the modern organizations are the promotion and growth of an ethical behavior of employees, always taking into account their satisfaction and dedication to the organization.

## **Summary**

This paper will provide a theoretical background of motivation, work-related stress, job satisfaction and occupational burnout syndrome among healthcare professionals, through an analysis of the Greek and international literature. The theoretical background includes the study of the relationship between management – employees – business results, and how these factors change in terms of work-related stress. There will be presented various measurement scales and models for the prevention of work-related stress and job satisfaction, which have

been adequately applied and evaluated for their accuracy. Through the research by questionnaires, motivation will be examined in terms of job satisfaction and job stress. At the same time, stress levels and the main motivating factors will be examined in relation to the sample used in the research.

Four online databases were used for the needs of this paper: Emerald, PubMed, ResearchGate and Google Scholar. The search was based on keywords about motivation, occupational stress, burnout syndrome and job satisfaction. The search was done in Greek, English, French and German, during March and April, 2021. The present paper consists of scientific researches, dissertations and other papers from trusted sources.

The purpose of this research is to examine the relationship between work motivation and job satisfaction among healthcare professionals as well as to highlight motivational factors and other factors of human resources management.

The provision of health services is a complex and often very demanding task. Healthcare professionals face many responsibilities every day concerning patients, colleagues and the organization they work for. Medical professions require knowledge of a wide range of skills, interpersonal and specialized techniques. Sometimes they face contradictions because of the demands between administration and patients. According to the fourth European survey on working conditions (2005), work stress is the most common occupational health problem, affecting around 22% of European workers. Workers who experience work-related stress tend to be more time away from work. Also, the rise of psychological conditions, such as depression, anxiety disorders and burnout syndrome, are due to changes in the psychological context of the working environment (Theorell, 2006). It is concluded that occupational burnout syndrome is a link between psychologically unfavorable work environments and mental illnesses (Tennant, 2001; Paterniti et al., 2002; Borritz et al., 2005; Wang, 2005; Ylipaavalnemi et al., 2005).

**Key words:** Job Motivation, Burnout Syndrome, Occupational Stress, Healthcare Management, Healthcare workers

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# 1. Introduction

Organizations are social systems that combine human resources and other resources to produce a product or service, taking into account the concepts of profit and sustainability. All people are born different and bear their individual characteristics. Each employee has an autonomous personality and unique behavior, which have been shaped by the personal values, experiences, environment and stimuli. Work occupies the most important place in the life of every human being and the effective functioning of organizations has a great impact on the well-being of each society. For these reasons, human resource management has become a key factor in the successful operation of any organization. Organizational behavior is a discipline dedicated to the study and understanding of the causes, structure and dynamics of human behaviors, individual and collective, within the organization. Human resource management with the help of organizational behavior try to analyze, understand and manage the personality of each employee, who belongs at the same time to many different groups, organizations and structures, inside and outside the field where he carries out his work (Serdaris, 2008).

The role of a manager consists of three basic values: 1) Increasing the effectiveness of the organization, 2) Continuous development of people within the organization, 3) Building high morality, i.e. perception of high individual contribution to common purposes. As early as the late nineteenth century, many managers, mostly from the United States of America, focused on perfecting administrative practices. At that time, there was a perception that a worker had to be paid the lowest possible amount, while there was no effort to measure nor assess each employee's work. These early ideas of human resource management became known as scientific management, founded by Frederic Winslow Taylor: "In long-term planning, employees may be forced to work more diligently than the average person around them, unless they are not convinced that they will get a significant and permanent increase in their salaries. In the literature this phenomenon occurs with the term Taylorismus (Taylor, 1947).

Mayo then noted that Taylor's model does not contribute to the development of employees' talents. In fact, focusing on material progress makes it difficult to promote and develop skills, but also to work in teams. An important contribution to the need to develop a new, more human-centered model was the movement of the Great Depression (1929-1933). The model of Mayo was built on the values of Taylorismus, but introduced a fresh view of the human factor within the organization. Each person has a distinct role and importance in the production process and cooperation between them is very important. In this theory for the first time a connection was made between formal (goals, technology, skills, resources) and informal views (behaviors, values, teamwork, relationships, feelings), which are compared to



an iceberg, which is known to constitute of a single structure with two distinct territories: a visible one and an invisible one, symbolizing respectively the formal and the informal views (Mayo, 1933).

Healthcare professionals are the most critical players in the range of healthcare services. For example, forty percent to ninety percent of the national healthcare budget is absorbed by human resources. However, healthcare systems tend to treat human resources as a source of cost rather than as an investment. The application of incentives is a very useful practice for attracting and retaining healthcare professionals with specialized knowledge and high levels of skills. In addition, the application of well-designed incentives can enhance the motivation of employees, their satisfaction and their effectiveness. Improved monitoring, the creation of databases and the exchange of good practices between different organizations are crucial elements for the creation of better workplaces, for strengthening human resources, for improving outcomes and for patient safety. The main factors affecting the healthcare system are identified in general underfunding and neglect from the government. The main omissions of modern healthcare organizations include the perpetuation of ineffective practices and structures of human resource management, unpleasant working conditions, working overtime, lack of control and support, uncertainty about the professional future, financial inequalities, limited access to resources and information, but also absence of employee development plan (WHO, 2006; Caldwell & Kingman, 2007).

Hongoro and Normand (2006) observed that the labor market is compatible with the economic theory, in the way that in order for a healthcare professional to accept a job, the expected benefits of it must exceed the opportunity cost. These benefits, whether economic or not, are the incentives that will attract and retain a dedicated employee. The various motivations are at the disposal and at the discretion of each organization, regardless of its nature. They apply to both private and public bodies, to profit and non-profit organizations. The literature review highlighted the following categories of incentives: positive, negative, financial, non-financial, material and intangible. (Kingman, 2003; Cardwell, 2007; Zurn et al., 2005).

In a 2006 report entitled “Working Together for Health”, the World Health Organization identified a deficit of around four million healthcare professionals, more than two million of whom involve doctors, nurses and midwives. This lack of staff deprives more than a billion people of all access to health services. In the same report, the World Health Organization argued that any action to develop human resources should focus on improving the recruitment process, improving the performance of existing staff and reducing the rate of abandonment of the profession (Conseil international des infirmières, 2008).

## **2. Literature Review**

### **2.1 Motivation - Definitions**

According to Uno (2007), motivation is considered to be an encouragement towards a person to change his behavior in order to better satisfy his needs. In other words, it is a force that pushes the individual to change his behavior in exchange for his satisfaction. Maslow argued that each person has prioritized his needs according to five categories, which are placed and studied in a pyramidal structure. The most basic are called normal and include the need for food, water, shelter and love. The next category includes security needs and concerns all the individual's efforts to avoid anything he thinks might harm him. Then there are the social needs that include friendship, compassion and generally the feeling of belonging somewhere. The fourth category includes the needs of reputation and recognition, while in the latter category belong the needs of self-completion, in which the person receives the full satisfaction and feeling of completeness from his activities. Maslow also argued that it is not necessary for every need to be fully met in order for the individual to move to a higher level, but satisfaction to a minimum level is sufficient. At the same time, he stressed that for the various needs there is temporary saturation and thus the individual constantly experiments with new patterns of behavior in order to satisfy each time the need for his goal. Work motivation is a variable that can change the relationship between a stressor and a strain. Robbins (1993) defines motivation as the will and effort of employees to achieve organizational goals, provided that certain personal needs are met. Dublin (1977) includes in the term motivation all the efforts and forces of an organization to attract staff and maintain its human potential. Dalton (1974) defines motivation as the way in which needs, desires and aspirations guide human behavior and argues that motivation promotes job satisfaction and productivity.

In simple words, to identify a person's motivational factors, it is required to answer the question: "What do workers want from work?". Herzberg et al. (1959) identified two types of motivation, internal or endogenous and external or exogenous motivation, which were then linked to the existence or non-existence of job satisfaction. Further study of this dual motivational model was followed by Vroom (1964) and then by Porter and Lawler (1968). Under this model, employees enjoy rewards from both types of motivation and their ultimate satisfaction and motivation is the cumulative result. Endogenous motivation refers to all autogenic factors that force the employee to behave in a certain way or evolve in a particular direction. They are characterized by a high degree of autonomy and can be presented as a sense of responsibility, freedom of action, talent, ability to evolve and pleasure. On the contrary, external motivation includes anything that is done in order to receive an additional

reward, whether tangible or intangible. It may include positive stimuli and punishments and it is characterized by fast, strong and short-lasting results. Pool (1997) identified a significant positive correlation between motivational techniques and job satisfaction.

Zurn et al. (2005) argued that incentives to work are a factor of major importance for the performance of workers and, by extension, of organizations, but also an important variable in the intention to leave a job. Mathauer and Imhoff (2006), in line with the above-mentioned statement, added that low incentives have a negative impact on workers' performance, which extends to the healthcare system. It is the main factor that pushes a person out of work and leads to the aggravation of geographical inequalities, with the phenomenon of displacement of healthcare workers to large urban centers or even abroad. Finally, there is evidence that motivation is based on the employee's mental stability, ambitions and interest, which translate into his daily effort. According to that statement, motivation theory examines all motivation processes and explains how employees behave (Kanfer et al., 1999).

The main role of the workers' motivations in organizations has been recognized in the relevant organizational behavior literature a long time ago (O'Reilly, 1991). It's beneficial for people's mental health to work, because unemployment is linked to depression, stress but also with suicide (Blakely et al., 2003). It is clear that organizations need incentives for workers to achieve any defined goal (Smith, 1994). Motivated workers are more productive and help organizations survive and prosper. In this context, one can define the concept of motivation as a psychological process that gives purpose to behavior and direction (Kreitner, 1995), as an internal movement to satisfy an unsatisfied need (Higgins, 1994), or as 'internal processes and external forces directing behavior' (Naylor, 1999). Motivating employees is one of the main tasks of management, but it is a difficult process, because what motivates one person may not motivate another, and certainly whatever is motivating in the present, is not necessarily effective in the long term. A prime example is salary for which it has been observed that as income increases, money is a weaker driver, or when workers grow older, an interesting work acts more as an incentive (Kovach, 1987).

Patrick et al. (2009) and Wilbroad et al. (2013), highlighted as determinants of motivation for healthcare professionals the dedication, conscientiousness, endogenous satisfaction, time limits and active participation. Peters (2010) as regards healthcare professionals, recognized as the main motivators the content of work, the working environment, the exogenous benefits, autonomy, safety and transparency of procedures. Tribolet (2004) investigated the relationship between endogenous and exogenous motivation and Stringer et al. (2011), found that endogenous motivation is positively correlated with job satisfaction and, respectively, exogenous is negatively related with job satisfaction. Employees with strong internal

motivation, such as self-performance, will be mostly affected by the lack of freedom, while supporters of external motivation are more interested in their workload and rewards.

Respectively, Luo (1999), in her paper, identified a positive correlation between internal motivation and general work satisfaction, while external motivation was positively associated with depression. The support that the employee receives from the management and his social environment have a negative correlation with depression, anxiety and psychosomatic symptoms. The relationship between workload and external motivation, as well as the relationship between work freedom and internal motivation, are factors in the occurrence of psychosomatic symptoms and stress respectively (Luo Lu, 1999). Another important factor in motivation and dedication of staff is the quality of the working environment (Buchan, 1999). This quality is about providing a safe working environment and creating a positive organizational culture. In this sense, all members of an organization are called to play their part, taking on their own professional requirements and shaping the ways in which they will treat their colleagues and clients, with a view to creating a positive professional environment, where people would be pleased to work.

A degraded context of management and organization of motivation can have strongly discouraging effects. It is therefore important to understand that all aspects of organizational management have an impact on human resource management, whether it concerns business planning, service models or access to resources. Thus, incentive management systems should not be considered independently of other areas of the organization. As Mathauer and Imhoff (2006) point out, "human resource management policies must be integrated into a single - unique governance plan."

**Incentives table – Table 1**

<b>Financial</b>	<b>Non-financial</b>
Cash earnings	Degree of autonomy
Pension plan	Clarity of roles and activities
Insurance packages	Resource adequacy
Paid leave	Recognition of the effort
Allowances (children, housing, travel, consumables)	Support from management and partners
Prims (achieving goals, dedication)	Fair task-sharing
Scholarships	Feeling of security
Granting of loans on preferential terms	Ensuring cleanliness
	Good employee representation

	Good communication with partners
	Equal opportunities
	Granting parental leave
	Ensure stay at work
	Flexible working hours
	Rest breaks
	Education and development programs
	Effective supervision
	Provision of support services (transport, housing, child employment structures)
	Professional satisfaction
	Personal success
	Commitment to common values
	Respect for colleagues and society
	Feeling of belonging

Source: Buchan et al., in Adams & Hicks, 2001; Caldwell & Kingma, 2007; Dambisya, 2007

In summary, the main incentives for healthcare workers are presented by Bennett and Franco (2001) as follows: 1) Incentives at personal level (individual needs, expectations regarding the results or consequences of professional activities), 2) Incentives at operational level (salary, human resources management systems, performance feedback, culture), 3) Social and cultural incentives, 4) Health reforms (communication, leadership, compliance with employees' personal values).

## 2.2 Analyzing motivation

Herzberg (1987) stated that job motivation is determined by motivators and hygiene factors. Motivators can be used to increase job satisfaction. Hygiene factors do not lead to satisfaction but their absence leads to dissatisfaction. Some of the most well-known motivators are achievement, responsibility, work itself, recognition and growth or potential for advancement. The main hygiene factors are company policy and administration, style of supervision, interpersonal relationships, working conditions, salary, status and security. The management of an organization is accountable for increasing the motivational potential on a job position, which is called job enrichment.

Job enrichment will improve the link between the worker and the organization. Organizations have to acknowledge the commitment that people create to them and need to create jobs with growth potential in which employees are willing to remain. This is often not solely necessary

for the well-being of the staff, but it also includes a positive long-term impact for the organization. If they succeed to form challenging work positions, it will be easier to retain their best staff. The knowledge of certain employees is what creates and sustains competitive advantage for a company (Alavi, 2001).

Employee motivation can also be increased with job enrichment, which means an employee gets more tasks and/or a larger responsibility as for example increased participation in decision making. Job enrichment aims to internally motivate employees by giving them more opportunities for personal growth. As a result, they will get to perform better on their daily tasks, which will eventually increase their job satisfaction. Implementation of job enrichment in general tends to decrease stress levels, due to a higher level of decision latitude. But on the other hand, for some employees, more decision latitude and responsibility will increase their stress levels. Decision latitude refers to the potential control a worker has over his / her tasks and his / her conduct during the day (Karasek, 1979). Job enrichment will have the most effect on people with strong need for personal accomplishment. Organizations have to be aware of the fact that job enrichment will not have the same effect on all individuals. Even if they manage to increase the overall motivation of the workers on a particular work position, this does not mean it has a positive effect on the organization in general. Therefore, the management team needs to be really careful and aware of the individual differences of their employees when implementing job enrichment. Each employee will respond differently to job enrichment, thus communication and feedback is of extreme importance (Geurts, 2008).

Hackman et al., (1975) came up with a fresh approach to applying job enrichment and redesigning work, based on the two factor theory of Herzberg. This new theory provides a tool for the identification of the motivational aspects of a job position and helps making plans for changes. According to this theory an employee needs to experience three critical psychological states in order to get internally motivated. These psychological states include experiencing responsibility, meaningfulness and having knowledge of the results. Hackman et al. (1975) developed a diagnostic measurement tool these three critical states. This tool uses five factors to analyze a job: autonomy, skill variety, task identity, task significance and feedback. The final results provide a motivating potential score (MPS). Responsibility is measured by the amount of autonomy a work position provides. It is the degree to which the employee has substantial freedom and independence over his / her job. Hackman et al. (1975) concluded that the perception of meaningfulness can be measured by three core factors: skill variety, task identity and task significance. Skill variety is the number of various skills that are required to complete a task. Task identity refers to the knowledge of the final desired results. If an employee can oversee the process and know the desired results, the experienced meaningfulness is higher. Task significance is the overall perception of contribution of the

employee. This depends on the degree to which the specific job or the entire company has an impact on the lives of other people or on the world at large. Knowledge of the result is not just about being able to see the visible final result, but it is important to get feedback from other people. Getting feedback improves the overall perception of the job and influences knowledge of the results, meaningfulness and responsibility. Hackman et al. (1975) described five implementing concepts which each influence different core dimensions of job enrichment. These concepts are: forming natural work units; combining tasks; establishing client relationships; vertical loading and opening feedback channels (Geurts, 2008).

### **2.3 Motivation of doctors**

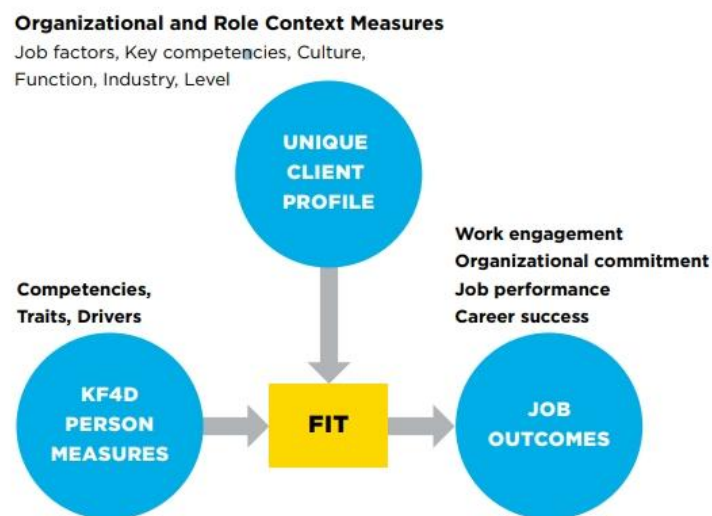
Doctors, because of their many years of study and the importance of their position, are mainly self-motivated or, as stated in the literature, have internal motivation. When they realize that they are losing their motivation, they try to distance themselves and observe the current situation globally. This method is known in the German literature as "Berg-Perspektive", while in English it translates as the Mountain perspective, in which a person is at the top of the mountain and observes the whole problem globally. Alternatively, organizations may turn to professionals who specialize in motivation techniques, called motivation coaches. In this method, however, there may be increased resistance from doctors, which, however, seems to be bent by the introduction of an individual doctor – coach session, especially when it is carried out remotely and not in person (Deutsches Ärzteblatt, 2014).

Another suggestion is the creation of support groups that in the literature appear as Peer Support Groups or as Motivationszirkels. These groups are formed by professionals of the same interest, in which they discuss their problems and concerns and seek solutions (Deutsches Ärzteblatt, 2014). The use of support teams as a tool to deal with work stress and burnout syndrome has been supported as effective by many researchers (Maslach & Goldberg, 1998; Schaufeli & Enzmann, 1998; Freudenberger, 1974). In fact, Schaufeli et al. (1998) argue that these groups are capable of providing all the necessary types of support to healthcare professionals, such as emotional, informational and moral. Also, there are surveys that have linked the highest levels of support from partners, with lower levels of occupational burnout (Janssen et al., 1999; Coffey et al., 2001; Jenkins et al., 2004; Taylor, 2007). Sources of stress vary depending on the job, but also on the personal perceptions of each employee. The main advantage of these groups, according to McVicar (2003), is that the members themselves choose the topics that will be discussed each time. Despite the benefits of this very widespread practice, it has been accused of not promoting cooperation between different groups of professionals and of involving the problems of intimidation and enforcement, since there is no coordinator of the group. Finally, from the bibliographical review, it seems to be

the most effective method for resolving factors of dissatisfaction, known as demotivators, but it shows problems in finding motivators (Deutsches Ärzteblatt, 2014).

The term internal motivation mentioned above refers to the carrying out of activities because of the social implications, importance, interest and enjoyment felt by the worker. Here, the concept of purpose at work should be added. Healthcare professionals struggle every day for the relief and treatment of patients, knowing that their actions have both individual and social impact. According to Button (2018) the management of each organization is responsible for developing a sense of purpose. Employees with a strong sense of purpose have increased dedication, better performance, increased job satisfaction and reduced levels of work-related stress. According to research, held by the Korn Ferry Institute, seventy per cent of employees, although they may maintain internal motivation for hard working, they have reduced dedication due to the standardization and impersonal nature of modern organizations. Also, organizations must shape the culture and values that will govern their operation and then look for employees who fit this profile. In this context, Korn Ferry's Four Gradual Proprietary Assessment Tool (KF4D) was developed, which is a tool to measure the degree of integration of an employee into an organization's culture (Lewis & Goff, 2016). Finally, it should be noted that the main characteristics of healthcare workers must be: high integrity, internal motivation and anthropocentric approach of the profession. Of course, compensation and rewards are very important in motivating employees, but most of the times they play a secondary role (Dai et al., 2018).

**Figure 1:** Korn Ferry's Four Gradual Proprietary Assessment Tool (KF4D)



Source: Lewis & Goff, "Korn Ferry's Four-Dimensional Executive Assessment: Technical brief", 2016



## 2.4 Incentive system features

Healthcare workers show a strong commitment to serving the public because of the anthropocentric nature of their profession. They receive great personal satisfaction from the care they provide to their patients, however, the importance of financial security and fair compensation cannot be ignored. The development of incentive schemes must therefore also incorporate economic measures, especially in areas where staff are struggling to earn a decent living. Inequalities or even the perception of inequalities in the design and implementation of the incentive system are often cited as important motivation variables. As Kingma notes (2003), the perception of wage differences creates a strong emotional response. Inequalities may stem from selectivity in the granting of bonuses, which are usually accessible only to high-ranking executives or new employees, excluding those already employed, and from the lack of transparency and accountability for the distribution of the various benefits and rewards.

The incentive system must reflect the needs and preferences of healthcare workers. The fundamental role of a motivator is to influence a person's behavior for better or worse. An incentive system considered by healthcare professionals to be ineffective either because it is in contrast to their personal or professional values, either because it actively harms their well-being or that of their patients, it is doomed to failure. In the worst-case scenario, it will create a deterrent effect that puts the quality of the work in immediate danger. A good incentive system must fully integrate the values, preferences and aspirations of healthcare professionals (Conseil international des infirmières et al., 2008). An incentive system, financial or non-financial, should, as far as possible, be formulated in accordance with its local framework, and be appropriate to the role, the functioning and infrastructure of the organization, the healthcare needs of the served population and local priorities in the provision of services. This is very important for incentive activities aimed at training and developing employees, which must be fully adapted to local conditions taking into account current funding methods, actual working conditions and available infrastructure (Chaix-Couturier et al., 2000; Mathauer & Imhoff, 2006). The objectives pursued by incentive schemes must be clearly stated (Petersen et al., 2006). This requirement determines the overall design of an initiative as well as the common goals of employees. Incentives must be aimed either at a specific outcome in terms of services or at modifying staff behavior. Also, the overall design of the incentive system should be realistic. Incentives must be able to be implemented effectively and promises that are difficult to deliver must be avoided. Some extreme situations can lead to discouragement or very rapid motivation of professionals, but eventually that leads to dissatisfaction (Gilson et al., 2004). Availability and sources of funding should not be ignored, as they are the main

implementing factors for change (Dambisya, 2007). Finally, some priority adjustments should of course be made according to changes in the needs and state of health of the population.

On the one hand, incentive management systems should be examined within the general financial framework and, on the other hand, their impact on healthcare professionals which are already active in the sector, must be taken into account. It is also important to understand that healthcare professionals are not a homogeneous group. Members' needs, preferences and aspirations depend on the personal and professional contexts in which they operate. The research of DeGieter et al. (2006) found that younger nurses place more emphasis on the promotion opportunities available to them than the more experienced nurses, while older nurses place more emphasis on occupational safety and their reputation in the hospital. When designing an incentive, it should be clearly stated how and to what extent it will facilitate the achievement of long-term strategic and short-term objectives. Rigoli and Dussault (2003), in an analysis of reforms to the healthcare system based on the implementation of incentive schemes, listed the risks of inadequate initial planning. They underline an inability to reach the expected results and often see the production of a result very different from what was expected by the designers of the incentive management systems. Finally, a great deal of attention should be paid to measuring performance, because it is a complex issue. While it is proven that the method of evaluation does not affect behavior and clinical decisions, evaluation measures can have a discouraging or even negative effect if they are not clear and transparent, and if employees are not previously convinced of their relevance and contribution (Kingma, 2003; Mathauer & Imhoff, 2006). Ramlall (2004) cited Fitz-enz (1997) who states “an average company loses approximately one million dollars with every ten managerial and professional employees who leave the company, due to the knowledge that leaves with them”.

## **2.5 Financial Incentives**

Financial incentives are an integral part of employment contracts. According to Hongoro and Normand (2006), at least fifty percent of the fluctuations in the work cycle are due to financial incentives. The amount of wages provided is a critical factor that healthcare professionals take into account when considering their career opportunities. Employers must be competitive in order to attract competent and highly qualified staff. According to Kingman (2006) the salary, the logical distribution of activities and the perception of fairness of compensation are the most critical factors that determine the attractiveness of an organization in the local and international labor market. Financial incentives can take the form of subsidies for travel, housing or other expenses of the employee's daily life. These incentives are very effective in areas where these services are particularly in demand or in cases in which expenditure is clearly recognized as an obstacle to the recruitment and retention of staff.

Finally, such incentives are sometimes preferred by employers, since they do not have a direct effect on their fund. Langenbrunner and Xingzhu Liu (2004) studied the financing and distribution of resources through three approaches: 1) the compensation approach, according to which providers are paid after the provision of their services, 2) the salary-based approach and 3) the integrated approach, which brings together the roles of provider and customer within the same organizational structure. Taking into account the above-mentioned approaches, a grouping of economic incentives can be made into three main categories. The first includes wages and other financial benefits available to workers on the basis of their qualifications and experience. The following category includes additional monetary fees, known in the international literature as bonus or *prims*, which are related to the achievement of specific objectives in specified time limits. These payments are made either in advance or after an achievement, always after an evaluation. Finally, the third category consists of financial incentives that are not related to direct employment activities and usually relate to scholarships or other financial services.

Some people believe that individual efforts do not lead to the desired results and that progress depends on team effort. The conclusion of the research by Mathuer and Imhoff (2006) proposes for more effective stimulation, that the organization's performance management systems should be organized according to the identities of the organization's teams. Such approaches are particularly popular in areas such as the treatment of chronic diseases, where scientific models have already been verified for their effectiveness (Chaix & Couturier et al., 2000). Although the incentives management systems are generally applicable at the level of organizations or individuals, the application of them at a group level has many advantages. Team members share the rewards provided by achieving the desired results, for which they are collectively responsible. Since each team member has an interest in the final result, all individual members have an incentive to improve their individual performance. A key advantage is also the systematic improvement of the functioning of groups and the promotion of mutual assistance relationships. For this reason, many healthcare professionals are more receptive to incentives aimed at group performance rather than at individual (Kingman, 2003).

## **2.6 Non-financial incentives**

The study of the literature has highlighted the need to adopt additional, non-monetary incentives, in addition to financial ones, in order to maintain and motivate staff. These measures are more effective in rich countries, where staff is expected to have a high standard of living, compared to relatively poorer countries. In both categories of countries, non-monetary incentives are not only valued for the direct benefit to workers, but they also allow

the employers to recognize the contribution and dedication of their employees, as they take into account the potential difficulties they may face in their daily lives. Healthcare workers prefer to have access to formal and informal educational programs as non-monetary incentives. Other important aspects are the nature of supervision, an effective guidance system, various plans to encourage and promote personal development of employees. Professional development through a well-designed training system, is an important factor of the employer's confidence towards the employees, for the performance of their duties. The prudent use of such programs has been linked to the fulfillment of personal and organizational goals, while ensuring the development of the capabilities needed to provide more effective healthcare services. It should be noted that any training received by employees, is a permanent personal advantage that increases their value in the labor market (Van Lerberghe et al., 2002). Training and development opportunities are particularly effective to the extent that they create better career prospects and are often combined with additional qualifications and other financial benefits that focus on the specific needs of individuals and organizations. Training courses must be designed to meet the needs of individuals and organizations and must always be practical and realistic.

Healthcare systems do not always have the necessary resources to provide financial incentives. However, sometimes they have access to other resources with which they can reward their employees. Complementary aids that have been verified as effective by surveys are housing aids, travel aids, childcare services, employee support centers as well as special healthcare programs for both workers and their families (Dambisya, 2007). Flexibility in the organization of work can play an important role in strengthening the dedication of healthcare professionals. This flexibility can be found in working schedules, better planning of leave periods (to coincide with, for example, school holidays) and incentives to return to work after a break. These approaches are of particular interest to healthcare professionals seeking to balance their professional responsibilities with commitments in their personal lives who have stopped working for family reasons. It also concerns older workers who wish to continue working but are not ready to take on the same hours or activities as their younger colleagues (Conseil international des infirmières et al., 2008).

## **2.7 Anxiety**

Stress is undoubtedly a huge problem that torments people of every age. As early as the last century, workers, employers and governments recognized its serious consequences. Stress phenomena not only affect physical and mental health on an individual level, but they also have economic and social implications (Luo, 1999). Matteson and Ivancevich (1987) estimated that about fifty percent of total absenteeism from work was related to stress, while

lost productivity was estimated at five percent due to work-related stress that could have been prevented. The same researchers calculated that the consequences associated with work stress cost the United States of America about three hundred billion dollars each year.

Healthcare professionals are very often faced with pain, discomfort and the possibility of the death of their patients. In addition to their other skills, it is very important that these employees receive the necessary training in the management of these negative situations, both in terms of communication with the patient and his environment, as well as in the personal management of their emotions. Organizations must constantly plan and implement actions to support and develop their employees, and not be repeated in static training programs. The misconception that "things will get better over time" has been debunked by many scientists, who argue that employee balance and development is a continuous and dynamic process (Shanafelt et al., 2005).

High levels of anxiety have negative effects on the individual both pathologically, psychologically and socially. The human body gradually loses its repair mechanisms and gets more vulnerable to diseases and infections. Many studies have linked stress to a variety of diseases. These include sleep disorders, headaches, gastrointestinal disorders, but also problems with relationships, with family, partners and friends. The contribution of stress to the manifestation or worsening of chronic diseases is also of a great importance. In fact, these diseases are more difficult to identify at an early stage, thus significantly burdening the financial budget of the patient and the insurance system. It has been estimated that workers who report increased levels of stress at work have fifty per cent more increased spending on healthcare services per year (Goetzel et al., 1998).

## **2.8 Work Stress - Definitions of Work Stress**

Work-related stress is of the most importance to administrators, employees and other stakeholder groups in the organization. It is a complex phenomenon and has been described in different ways, depending on the theoretical model according to which it is studied (Clegg, 2001). Robbins and Judge (2011) defined work-related stress as a dynamic situation in which an employee faces a challenge, which he is unsure whether he can cope up with and which is very important to complete successfully. Another definition was given by Luthans (2006) who argues that stress is an employee's response when adjusting to new situations, which is influenced by the individual characteristics and psychological processes, as well as by environmental factors and prevailing conditions. According to the National Institute of Occupational Safety and Health of the United States of America, work stress is defined as any harmful physical and emotional reaction of the employee, resulting from the divergence between the requirements of the job and the skills, resources and needs of the worker. More

generally, work stress can lead to health problems and injuries – occupational accidents (The National Institute for Occupational Safety and Health, 2014).

According to the cognitive theory of Lazarus and Folkman (1984) regarding stress and its treatment, work related stress is defined as the interaction between workers and their environment. This theory describes that when the demands of the environment exceed the available resources, the result is either the manifestation of stress or its treatment, depending on the personal perception of each employee about stressors. Nakasis and Ouzouni (2008) defined work stress as the harmful physical and emotional response to the mismatch between work demands and the employee's skills or resources. Riggio (2003) recognized two distinct categories of work-related stress, one due to work activities and the other due to role at work. Cooper and Marshall (1976) in their model suggest that work related stress is a consequence of job requirements, role in the organization, opportunities for development, organizational structure and employee relationships.

During the last decades, workers have been concerned about their working conditions. The main factors concern stability, working conditions and the level of wages. This increased job anxiety has been defined as occupational stress and is now linked to job satisfaction, anxiety disorders, depression and other pathological conditions. Work-related stress is a category of psychological stress that includes physical, mental and social factors (Sauter et al., 1990). The first legal reactions to work-related stress date back to 1960 in Michigan, United States, and concerned an employee in the automotive industry. He argued that in order to meet the daily targets, he had to carry out different processes at the same time, resulting in an increased number of accidents and negative criticism of his supervisor. The employee was acquitted by the court receiving compensation for psychological collapse. By 1995, almost half of the American states had revised their legal framework so that workers could receive compensation for psychological and physical disorders associated with work-related stress (Elisburg, 1995).

A distinction must be made between work stress and work challenges. The challenges are necessary to motivate workers to promote and develop their skills and achieve better results in their work. When a challenge is successful, the person feels euphoric and can relax. In contrast, work stress is a constant feeling of anxiety and stress, which is replaced by a feeling of exhaustion. In other words, a distinction must be made between productive stress, which can be characterized as a challenge, and excessive stress, which is an obstacle on the development of the employee and the organization (Sauter et al, 1999).

A very useful model for measuring work-related stress is that of Karasek, developed in 1979, but yet popular. After analyzing job positions from two major surveys in Sweden and the

United States, Karasek identified two unrelated dimensions of the study of work stress: The first concerns the amount of work, which is referred to in the literature as demand, and the second refers to the degree of control that the employee exercises over his activities.

Karasek's demand-control model takes into account the psychological impact resulting from the combined effects of labor requirements and the degree of freedom in decision-making. Further research has revealed that each dimension is independently related to international work-pressure indicators referred to as strains. Indicatively, the increase in consumption of sedative medication is mentioned when there is an increased workload, while consumption decreases when autonomy at work increases. Thus it seems that increased control can reverse the psychological consequences of increased demand (Karasek, 1979).

Based on this model, all jobs can be categorized into four groups:

**Table 2: Job Categories**

<b>Work category</b>	<b>Work Requirements</b>	<b>Degree of control</b>
High pressure	Increased	Reduced
Low pressure	Reduced	Increased
Active Tasks	Increased	Increased
Passive tasks	Reduced	Reduced

Source: Karasek, “Job demands, job decision latitude, and mental strain: implications for job redesign”, 1979

Karasek's model, despite its wide spread use, has been criticized for its effectiveness in the modern labor market (Cooper & Lewis, 1994; Quick et al., 1990). Medical professions are usually classified as active tasks, since they are characterized by increased requirements and a high degree of control, due to the highly specialized medical knowledge. Occupations that fall into the category of high pressure are most often associated with the emergence of psychological, physical and behavioral problems. Broadbent (1985) argued that Karasek's main drawback is that he does not take into account the multifaceted nature of the consequences of work-related stress. He found that high demands are associated with the occurrence of work stress, while the degree of autonomy is associated with depression.

Another omission of the Karasek's model is the absence of involvement of work conflicts in the manifestation of work stress. In the healthcare professions, as in most service occupations, workers spend most of their time together with colleagues. Thus, new possible sources of work-related stress have emerged, based on interpersonal relationships, such as working with wayward supervisors or associates (Frew & Bruning, 1987). Finally, another model described by Siegrist (1996) concerns the imbalance between effort and reward, and argues that work stress stems from the mismatch between high work effort and low rewards. Rewards include

salary, project recognition and promotion opportunities. In conclusion, it seems that job satisfaction acts as a variable that mitigates the consequences that accompany work stress, even in categories of high-pressure occupations, such as medical ones.

## **2.9 Defining Burnout**

Some of first references in the literature to burnout syndrome are attributed to Freudenberger in 1974, who described it as a manifestation of exhaustion, both mental and physical. In order to study the effects of burnout, it is necessary to measure the pathological conditions and behavioral manifestations of individuals. The most commonly measured conditions are headaches, sleep disorders and shortness of breath, while behaviors study irritability, cynicism and emotion management. Employees who work hard or for long periods of time, as well as those who constantly want to offer, are more prone to burnout. At the same time, Freudenberger pointed out that working without significant challenges, but also monotonous activities, are factors that increase the likelihood of work stress. Although burnout syndrome is associated with work-related stress, many scientists emphasize the need to differentiate between the two concepts (Cordes & Dougherty, 1993; Pines & Keinan, 2005; Smith et al., 2006). Maslach and Goldberg (1998) described burnout syndrome as a psychological syndrome of emotional exhaustion, depersonalization, and diminished personal achievement. Burnout was first observed in service workers and healthcare professionals (Maslach et al., 1996). However, a wealth of research has supported the possibility of studying this syndrome in any professional group (Bakker et al., 2002; Demerouti et al., 2001; Leiter & Schaufeli, 1996). Later, Maslach, Schaufeli and Leiter (2001) defined burnout as a psychological syndrome triggered by chronic work-related stressors referred to in the international literature as stressors. Three dimensions emerged in this approach: feelings of exhaustion, disconnection from work, and feelings of inefficiency. These dimensions make up the three subcategories of the Maslach Burnout Inventory (MBI) model, which is one of the most popular instruments for measuring the burnout effect (Schaufeli & Enzmann, 1998).

Another well-known model for the study of burnout syndrome, is known in the international literature as the existential model, proposed by Pines (1993). The basic premise of this model is that only highly motivated workers are at risk of burnout: "In order to burn out, one has to be first on fire" (Pines, 1993; Pines & Keinan, 2005). Alternatively, the Job Demands-Resources (JD-R) model is used to measure burnout components. In this model, stress is a response to the imbalance between work demands and available resources. More specifically, labor demands are closely linked to the burnout component, while lack of resources is associated with distancing oneself from work. Of course, Karasek and Theorell (1990) pointed out that regardless of the amount of resources available, there is a limit to the



maximum amount of work that each employee can complete. In the same context, Schaufeli and Buunk (2003) proposed three distinct theoretical approaches in order to study burnout syndrome: the individual approach (e.g. divergence between expectations and reality), the interpersonal approach (e.g. comparison with others, lack of reciprocity) and the organizational approach (e.g. misfit on job position). An alternative measuring instrument for burnout is also the Oldenburg Burnout Inventory (OLBI) model (Demerouti et al., 2001; Demerouti et al., 2003). In OLBI, burnout is portrayed as a syndrome associated with negative work experiences, including feelings of exhaustion and dismissal. Demerouti et al. (2003) defined exhaustion as the extreme feeling of fatigue as a consequence of prolonged and intense behavioral and / or physical activity. The problem is exacerbated when unpleasant working conditions prevail. Finally, distancing from work involves both distancing oneself from the content of the work and its contributors. As a situation, it represents an extensive and intense emotional, cognitive and behavioral reaction leading to job rejection.

Maslach (2001) investigated the effects of burnout on human health and stressed that its real purpose is to mediate between behavioral patterns and work outcomes. In contrast, recent research (Shirom et al., 2005) has linked chronic burnout to various health problems such as depression (Toppinen-Tanner et al., 2005; Ahola et al., 2005; Wang, 2005) and anxiety disorders (Bargellini et al., 2000). Many researchers have highlighted the need to distinguish between depression and burnout as two distinct states (Glass & McKnight, 1996; Melamed et al., 2006; Ahola & Hakonen, 2007). In the Maslach Burnout Inventory (MBI) model, the close relationship between the two concepts is found between depression and one of the three components of burnout, exhaustion (Glass & McKnight, 1996; Schaufeli & Enzmann, 1998). Another aspect that was put under observation is lifestyle choices and activities. Regarding the relationship between burnout and lifestyle, there are conflicting results between the various studies. Gorter et al., (2002) concluded that people who drank more alcohol and had less exercise were at a higher risk of developing burnout symptoms. In contrast, Burke (1994) and Shanafelt et al. (2002) did not identify any association between alcohol consumption and burnout. Finally, burnout syndrome has been associated with increased rates of absenteeism. Toppinen-Tanner et al. (2005) identified a link between the presence of burnout and increased absence due to psychological disorders and musculoskeletal disorders. In the same context, Ahola et al. (2008) concluded that severe burnout is associated with increased absence from work due to illness. A study by the Karolinska Institutet (2008) found that burnout was associated with lower levels of perceived health conditions, increased levels of work stress, increased risk of depression, sleep disorders, and impaired memory (Peterson, 2008).

In some countries, an attempt is made to separate burnout concepts and exhaustion disorder. Although in Greek the translation of burnout syndrome as occupational exhaustion syndrome

prevails, in Sweden these phenomena have been completely separated (National Board of Health and Welfare, 2003). Burnout as already mentioned consists of three components: exhaustion, distancing and decreased results. Exhaustion disorder refers to physical and psychological symptoms of exhaustion such as excessive fatigue, sleep disorders and mental dysfunction. Another difference occurs from the diagnosis of the two conditions. On the one hand in exhaustion disorder physical and psychological symptoms due to one or more stressors are examined, while in burnout there is only one stress factor, work.

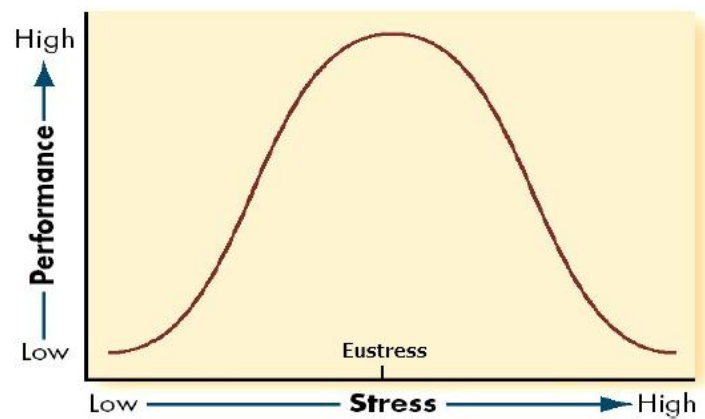
## **2.10 Occupational stress and Burnout**

Many researchers have associated occupational stress with burnout syndrome (Freudenberger, 1992; Burisch, 2006). The boundaries of distinction between the two phenomena are usually very difficult to distinguish. The main point of distinction between the two concepts lies in the intensity of the consequences but also in the way of affection. In particular, work stress can also be beneficial to the individual. This creative stress helps employees stay connected to their work and even achieve better results. When that positive related stress, known as “eustress”, increases in intensity or duration, it is now called distress and acts as a brake on a person's daily life, losing its beneficial properties (Kirchler, 2008). In contrast, burnout syndrome has only negative components, regardless of its size and severity.

McManus et al. (2002) concluded that work-related stress and burnout syndrome are interrelated. They characterized feeling tired and the reduced levels of performance as consequences of work-related stress, while attributed cynicism and other negative behaviors to behavioral responses to work-related stress. Richter and Hacker (1998) argued that burnout is a result of synergy between the employee's motivations and values rather than just work-related stress.

The following figure shows the distinction between eustress and distress, as well as their relationship to professional performance:

**Figure 2:** The Yerkes Dodson Curve



Source: Karl Halvor Teigen (1994)

## 2.11 Causes of work-related stress

Psychologists and managers have established two distinct approaches as causes of work-related stress. The first concerns the personal characteristics of the employee and attributes work-related stress to the personality and personal perception of stressors. The second approach takes into account working conditions that are objectively considered as stressful, such as increased demands and role conflicts. The appropriate response strategy would be designed according to the approach chosen by each organization. For the first one, which is characterized by strong subjectivity, measures are proposed that will help each employee individually to cope up with the requirements of his role. For the second one, coping plans should focus on redesigning jobs and the work environment (Elisburg et al., 1995).

Robbins and Judge (2011) argued that work-related stress may stem from external as well as internal factors, which in the international literature are referred to as stressors. The source of work stress has been identified as increased workload, bosses' mental function, limited time, lack of responsibility, role ambiguity, role conflict, lack of understanding of business culture, and changes in work processes. Einhorn et al. (2002), held a survey of doctors' groups in the United States of America, in which they found that red tape requirements are associated with increased levels of anxiety, reduced job satisfaction and reduced levels of research and development. In their work, Sehlen et al. (2009), also highlighted demanding bureaucracy as the most important stress factor, which even overcomes stress due to difficult outcomes of the patient's health. Finally, another stressor, which is one of the main characteristics of the medical profession, is found in working hours. Employees who work night shifts or work on

weekends show higher levels of work stress. Arkerstedt et al. (1990), argued that night work carries risks and long-term effects on workers' health.

Maslach et al. (2001), point out that when investigating burnout and work-related stress, attention should be paid to the contribution of each factor. When the emphasis is on the burnout component, there is a risk of underestimating the other components of burnout syndrome, such as factors that affect service quality or patient satisfaction.

In the past, the management sector responsible for managing work-related stress had not been adequately investigated for two main reasons: 1) Employers did not consider the health of their employees to be as important as other indicators; such as performance and 2) They linked the various diseases only to physical factors and not to social or psychological factors. This notion has now been dispelled, as many studies have linked physical illness to stress. Leading scientists include Jenkins (1978), who advocated the link between cardiovascular disease and psychological factors. Since then, people have come to understand better that body and mind are interconnected, and that a pathological disease can also have a psychological background (Beehr et al,1978). The literature review has shown that individuals now consider their perceived state of health to be a very important factor in the working environment. This can also be seen from the ever-growing "relaxation movement" which plays an active role in redefining the role of the employee, requiring the necessary time and actions for maintaining the good health and safety of employees.

## **2.12 Job satisfaction and work performance**

Employment satisfaction is defined as the positive attitude of an employee towards his/her work (Robins & Judge, 2011). Hasibuan (2006) and Cherigton (1995) argued that job satisfaction is directly linked to the degree of job enjoyment of the employee. The close relationship between job satisfaction and job performance has been the subject of research for many years (Argyris, 1964; Gross & Etzioni, 1985). In the healthcare sector (Doef et al., 2012) and especially in the nursing sector, job satisfaction is the most important factor in achieving better performance (Hanan, 2009). According to Gibson et al. (2011), employee satisfaction depends on the results of internal and external factors, as well as on employers' perceptions. It is the degree to which the employee feels positive or negative towards his/her work, taking into account the work environment and relationships with colleagues. A survey held by Robbins and Judge (2011) concluded that organizations with more satisfied employees perform better than organizations with less satisfied employees. In the same path, Noermijati (2008) used four indicators to measure employee satisfaction: 1) sense of pride in the job, 2) desire to work despite the opportunity to promote, 3) degree of enjoyment of work, 4) overall sense of pleasure. At the same time, high job satisfaction has been linked to

increased motivation (Ololube, 2007), effectiveness (Sagie et al., 2002) as well as reduced stress levels (Kim et al., 2009), absence from work (Gellattly, 1995) and abandonment (Iverson & Deery, 1997).

The study of the international literature highlighted the importance of the characteristics of the organization as important influencers of job satisfaction (Adams & Bond, 2000), such as shortages of staff, equipment and other resources. Giallonardo et al. (2010) identified a strong correlation between job satisfaction, leadership suitability and motivation, by studying the impact of management practices. Finally, the contribution of working conditions and its nature is important, as for example employment in departments with infectious diseases (Hamama et al., 2014; Kinzl et.al., 2004), but also the prevailing ethics of the organization (Goldman & Tabak, 2010). The following table summarizes the five main work features related to job satisfaction:

**Table 3:** Work features for job satisfaction

<b>Work Features</b>
1. Nature of the work
2. Financial compensation
3. Promotion Opportunities
4. Support from supervisors
5. Relationships with colleagues

Source: Smith et al, 1969

According to Bernstein and Nash (2008), job satisfaction can be broken down through three approaches: emotional, behavioral and cognitive. The emotional approach includes feelings of anxiety, boredom, excitement and recognition. The behavioral factor includes all the actions and reactions of the employee related to his work, such as his formal and informal working hours, fatigue sentiment and attempts to avoid undertaking work. The last but not least approach, the cognitive one, refers to the degree of difficulty of the work, to its mental requirements as well as to the recognizability he/she receives through it.

The heavy workload is a key factor in workers' dissatisfaction in the healthcare sector. Shortages of mainly nursing staff, either due to reduced funding or a lack of suitable candidates, sometimes force existing staff to undertake additional tasks, even if they are not qualified to perform them. As a result, interactions with patients and colleagues become more difficult. Other causes leading to an increased workload include local growth in demand for healthcare services, an increase in patient expectations, and the implementation of reforms and extensions of professional roles, in particular during the transitional phase of

implementation (Gilson et al., 2004). However, the consequences due to the increased volume of work can be offset by the perception of workers by the provision of certain additional services towards them. These include full compensation for working overtime, the granting of additional days off or leave hours, the re-examination of professional roles for better distribution of responsibilities, the introduction of formal or informal regulation on the number of consecutive working hours, and it is generally proposed a continuous communication between employees and employers, in order to minimize the occupational risks associated with fatigue (Conseil international des infirmières et al., 2008).

Job performance includes all the activities an employee chooses to do or not to do. It is a measure of the employee's contribution to the organization (Mathis & Jackson, 2000). According to Mangkunagara (2009), performance is defined as the result of the quantity and quality of services provided by the employee, in accordance with the responsibilities and tasks assigned to him. Vernon (1961) divided the skills of employees into two groups, the verbal ones that include speaking fluency and ease in using numbers, and secondly, the perception abilities, which include anything related to physical actions and functions. Accordingly, Thurstone (1970) grouped skills in spatial, perceptual, arithmetic, linguistic, memory, expression, and inductive thinking. Later, Argyle (1989) added appreciation skills, social skills and creativity to the above grouping.

Values in the sciences of psychology and organizational behavior signify a cognitive structure, according to which a choice is made between alternative behaviors. According to Roceach and Milton (1973) "value is a firm belief that a particular behavior is personally or socially better than others, while the individual's value system is a stable structure of the beliefs associated with the suggested behaviors".

### **3. Methodology**

#### **3.1 Type of Research**

The research carried out is quantitative, empirical and sampling, using a questionnaire. Empirical research approaches and studies a phenomenon in the physical space where it unfolds, focusing on its interpretation through human experience, as it is determined by the subjects who experience this phenomenon (Berliner, 2002). Quantitative research is especially popular in the social sciences, usually through the formulation of one or more research hypotheses based on specific theories and which are confirmed or rejected based on the quantitative data collected. In this case, the quantitative research with closed questions that can be answered through predefined options was chosen, depending on the preference of the participant or the one that best describes his personal experience (Roussos & Tsaousis,

2002). Sampling is the best approach when the population under study is large, as in the present study the health care workers of public and private sector, when it is impossible to study in its entirety. Thus in this case the sampling is selected, in order to include the subjects who have the desire to participate and thus emerge a representative sample where everyone has the same chance to be selected without discrimination (Galanis, 2017).

### **3.2 Population under investigation**

The link of the questionnaire was distributed in public and private hospitals all over Greece, in primary care units and healthcare management groups in social media. There was an effort to cover most of the different work positions in the healthcare sector. Eventually, there were participants from most specialties like for example senior doctors, attendants, nurses, technicians, physiotherapists, social workers, pharmacists, managers and other.

### **3.3 Ethical issues**

The anonymity of the participants was fully ensured through the whole process. In fact, there were no identification points, so that it is impossible to identify the person or department of origin. Also, the participants of the research were informed through an introductory note that this is a study carried out in the framework of a postgraduate thesis for the University of Macedonia, its title was stated which makes clear its purposes as well as the name of the researcher and the consent of participation.

### **3.4 Data collection process**

The research was conducted using a Questionnaire that was distributed using the Google Forms Platform, from the 21<sup>th</sup> of July to 12<sup>th</sup> of August, 2021. The distribution of the electronic questionnaires created through the google forms platform, was done by sending the specific electronic link, by e-mail to healthcare professionals or by message to the network of associates of the graduate student in the social media platforms such for example Facebook, Instagram and LinkedIn.

### **3.5 Factor measurement tools**

The questionnaire consists of 7 units and 56 statements: 1) Participation Agreement (1 statement), 2) Demographics (7 statements), 3) Intrinsic Motivation (7 statements), 4) Extrinsic Motivation (8 statements), 5) Job Satisfaction (20 statements), 6) Decision Latitude (9 statements), 7) Workload (8 statements). For measuring their degree of agreement, a 5-point Likert scale was used. The interviewees had to choose between 5 alternatives which consists of: 1) Strongly Disagree, 2) Disagree, 3) Neither agree or disagree, 4) Agree, 5)

Strongly Agree. For the 7<sup>th</sup> Unit, the Workload, the interviewees had to choose between a 5-point Likert scale concerning the amount of stress that each statement triggered them, as the following example: “In my job, there is very little time to complete a task”, choose one of the following options: 1) No stress, 2) Little stress, 3) Moderate stress, 4) Enough stress, 5) A lot of stress.

The intrinsic motivation factor was measured by the questions used in Thakor’s article (1994) “Innate: Development of a New Intrinsic Motivation Measure Using Confirmatory Factor Analytic Methods”, in *Asia Pacific Advances, Consumer Research*. The extrinsic motivation factor was measured by the questionnaire from Warburton et al., (2014) in the “Extrinsic and intrinsic factors impacting on the retention of older rural healthcare workers in the north Victorian public sector: a qualitative study”. For measuring job satisfaction, the paper of Alpern et al was used (2013), “Development of a Brief Instrument for Assessing Healthcare Employee Satisfaction in a Low-Income Setting”. The workload factor was measured with questions used by de Jonge (1995), in “Job autonomy, well-being, and health: a study among Dutch health care workers”, and finally, decision latitude was measured by questions from Sale & Kerr. (2001), “The psychometric properties of Karasek's demand and control scales within a single sector: Data from a large teaching hospital”.

Indicative suggestions for estimating the above dimensions are the following:

- Intrinsic motivation: “My profession allows me to use all my abilities”.
- Extrinsic motivation: “I feel that the organization I work for appreciates me”.
- Job demands: “The work is psychologically demanding”.
- Job satisfaction:” I receive the necessary support and guidance from my superiors”.
- Decision latitude:” In my job I have the opportunity to develop my skills”.

Before the evaluation questions of the factors under study, eight (7) questions were added to the questionnaire concerning demographics and data on educational level and general career path. In more detail, the participants were asked about the following (Lagoumintzis, 2017):

- Sex: Choose between male / female
- Age: Write down a number
- Level of education: Choose between four (4) alternatives: Upper high school, University graduate, Master/PhD or anything else
- Job position: Choose between four (4) alternatives (Managerial position, Medical profession, Nursing, Technical profession) or write down your own answer
- Years of experience in healthcare: Write down a number



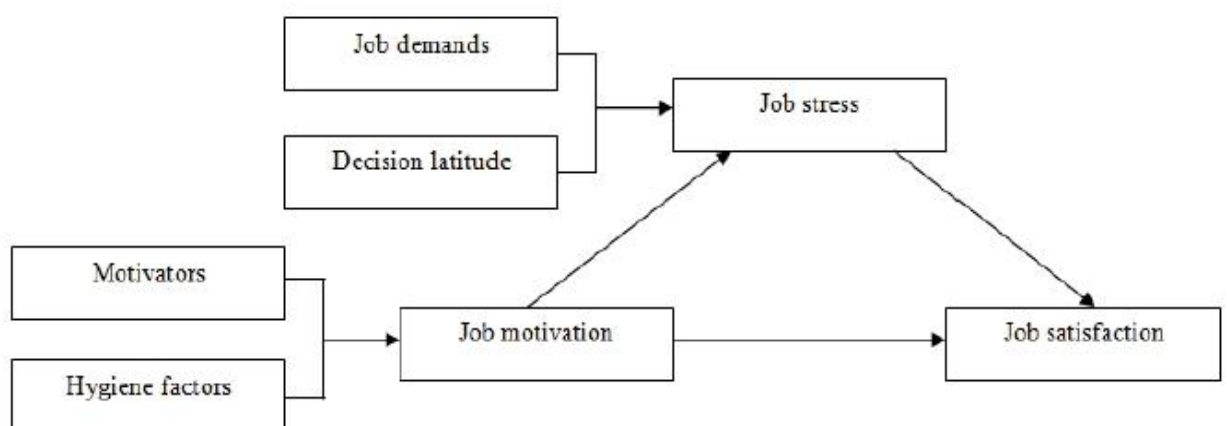
- Kids at home: Choose between yes / no
- Sector of work: Choose between public / private sector

The questions that were used in the questionnaire were written in English. The research was conducted in Greece, so all questions were translated in Greek, by a special English language tutor and translator. There was a double translation from English to Greek and from Greek to English, to test the accuracy of the translation. Before the distribution of the final questionnaire, it was distributed to five (5) healthcare professionals in order to spot any difficulties in understanding the questions and measure the time needed to complete it. These five (5) answers weren't included in the final research (Tsang et al., 2017).

### 3.6 Hypotheses

The conceptual model that is used for this thesis is presented below. The determinants of job motivation are based on the two-factor model of Herzberg (1987). This model describes overall job motivation as a combination of motivators and hygiene factors. Motivators are intrinsic to the job and relate to the desire of humans to achieve things, and through these achievements experience psychological growth. Hygiene factors are extrinsic to the job and are based on the basic need to avoid unpleasant things in the environment. The determinants of job stress are based on the job stress model of Karasek (1979). According to this model job stress is determined by the level of job demands and decision latitude an employee experience.

**Figure 3:** Karasek's Model



Source: Karasek, "Job demands, job decision latitude, and mental strain: implications for job redesign", (1979)

The hypotheses under investigation are stated as the following:

- 1) Job motivation has an influence on job satisfaction.
- 2) Job motivation has an influence on job stress.

## 4. Data analysis and interpretation of findings

The data collection closed on the 12<sup>th</sup> of August 2021, having 302 fully responded questionnaires. After examining the questionnaires, three (3) of them were excluded from the final research because they were filled up from professionals who didn't work in healthcare. As a result, 299 questionnaires participated in the data analysis. The data were then coded and passed to a database using the statistical program IBM SPSS Statistics 22.0. The tables and graphs were made through Google Forms and Microsoft Excel Professional 2019.

### 4.1 Sample description

As shown in the following graphs and tables, most participants work in the public sector (percentage 71,9%) (Table 8) and are mostly women (percentage 60,6%) (Table 4) who don't have any children at home (percentage 58,3%) (Table 7). The mean age of participants is 37.5084 (Table 9) years with 9,8328 years of experience (Table 10). Most of the participants (percentage 66,2%) (Table 5) have completed master degree or PhD studies, while 31,1% (Table 5) have completed upper high school education. 30,5% (Table 6) of the participants work in healthcare management, 28,8% (Table 6) work as nurse and 20,9% (Table 6) are doctors. The rest of the participants work as technicians, physiotherapists, midwives, social workers, pharmacists and health visitors.

**Table 4:** Sex of participants

Statistics					
Gender					
N	Valid	299			
	Missing	0			

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Άντρας	118	39,5	39,5	39,5
	Γυναίκα	181	60,5	60,5	100,0
	Total	299	100,0	100,0	

**Table 5: Level of education**

Statistics		
Education		
N	Valid	299
	Missing	0

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Άλλο (IEK, Κολλέγιο, κτλ)	4	1,3	1,3	1,3
	Ανώτερος τίτλος (MBA, MSc, PhD)	197	65,9	65,9	67,2
	Απόφοιτος/η AEI - TEI	94	31,4	31,4	98,7
	Απόφοιτος/η Λυκείου	4	1,3	1,3	100,0
	Total	299	100,0	100,0	

**Table 6: Job position**

Statistics		
Position		
N	Valid	299
	Missing	0

Position					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Διοικητικός υπάλληλος	92	30,8	30,8	30,8
	Επισκέπτρια υγείας	1	,3	,3	31,1
	Ιατρικό προσωπικό	63	21,1	21,1	52,2
	Ϊδιωτικός υπάλληλος	1	,3	,3	52,5
	κοινωνική λειτουργός	1	,3	,3	52,8
	Κοινωνική λειτουργός	1	,3	,3	53,2
	Κοινωνική Λειτουργός	3	1,0	1,0	54,2
	Μαία	10	3,3	3,3	57,5
	Μαιευτικό προσωπικό	1	,3	,3	57,9
	Νοσηλευτικό προσωπικό	86	28,8	28,8	86,6
	Παραϊατρικό προσωπικό επισκέπτρια υγείας	1	,3	,3	87,0
	Παρασκευάστρια	1	,3	,3	87,3
	Τεχνικό προσωπικό	13	4,3	4,3	91,6
	Υγειονομικό προσωπικό	1	,3	,3	92,0
	Φαρμακείο	4	1,3	1,3	93,3
	ΦΑΡΜΑΚΟΠΟΙΟΣ	1	,3	,3	93,6
	Φαρμακοποιός	6	2,0	2,0	95,7
	Φυσιοθεραπευτής	13	4,3	4,3	100,0
	Total	299	100,0	100,0	

**Table 7: Kids at home**

### Statistics

Kids

N	Valid	299
	Missing	0

### Kids

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NAI	125	41,8	41,8	41,8
	OXI	174	58,2	58,2	100,0
	Total	299	100,0	100,0	

**Table 8:** Public or private sector

### Statistics

Sector

N	Valid	299
	Missing	0

### Sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Δημόσια Δομή	215	71,9	71,9	71,9
	Ιδιωτική Δομή	84	28,1	28,1	100,0
	Total	299	100,0	100,0	

**Table 9:** Age of participants

Age

N	Valid	299
	Missing	0
Mean		37,5084
Median		36,0000
Std. Deviation		8,82772
Range		35,00
Minimum		23,00
Maximum		58,00

**Table 10:** Years of experience

Statistics		
Experience		
N	Valid	299
	Missing	0
Mean		9,8328
Median		8,0000
Std. Deviation		7,83859
Range		36,00
Minimum		,00
Maximum		36,00

## 4.2 Factor Analysis

The purpose of Factor Analysis (AP) is to summarize the relationships between a large number of variables in a comprehensive and accurate way to help understand a concept or relationship. It is distinguished in exploratory and confirmatory factor analysis.

### 4.2.1 Exploratory Factor Analysis-EFA

In the created database, factor exploratory analysis was performed through the statistical program SPSS 22.0.

This is the statistic method used for the initial investigation and the brief description of a set of variables through their grouping into factors. In the present case of this study, the variables are derived from the corresponding questions of the questionnaire. EFA helps us a) to arrive at a smaller number of unrelated variables b) to find possible causal relationships between sets of variables (factors) c) to identify collinearity problems between the variables we study before performing a regression analysis (Dafermos, 2013).

In the individual settings, the principal component analysis method was chosen which tries to estimate those parameters of the factor model which are very likely to reliably produce the initial matrix of the correlations, assuming that the sample follows the normal distribution. The number of factors to be created was not predefined but was selected based on the eigenvalues that must be  $> 1$  (Eigenvalues  $> 1$ ). Also, the balanced maximization rotation (promax) of the factors was chosen, which belongs to the lateral rotation, is computationally faster and is suitable for studies with a large number of data, where there is an indication of the relevance of the factors, such as the present (Petridis, 2015).

The quality of the data was checked using two indicators, namely the Keiser-Meyer-Olkin index (KMO) which evaluates the adequacy of the sample (desired values > 0.8 for satisfactory homogeneity) and the Bartlett's Test of Sphericity index which evaluates according to what extent the correlations between the variables allow the application of factor analysis (desired values of  $p < 0.05$ ). The KMO index was found at 0.819 and the Bartlett's index at 0.000, at which point the suitability of the data was confirmed to follow a factor analysis (Table 11).

**Table 11: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,819
Bartlett's Test of Sphericity	Approx. Chi-Square	4480,585
	df	231
	Sig.	,000

From the final EFA of the data presented below, four (4) questions were excluded from intrinsic motivation, five (5) questions from extrinsic motivation, two (2) questions from job demands, sixteen (16) questions from job satisfaction and three (3) questions from decision latitude, in order to create a strong model.

According to the Pattern Matrix (table 5) bellow, it turns out that the studied variables, identified 4 different factors, where the three (3) questions of intrinsic motivation and the six (6) questions of decision latitude, are recognized as a common factor (Table 12). This is not a cause for concern as decision latitude, freedom to take decisions, are often seen as factors of intrinsic motivation.

**Table 12: Pattern Matrix**

**Pattern Matrix<sup>a</sup>**

	Factor			
	1	2	3	4
Intrinsic_motivation_3	,781			
Intrinsic_motivation_6	,823			
Intrinsic_motivation_7	,812			
Job_Demands_1R		,810		
Job_Demands_3R		,772		
Job_Demands_4R		,945		
Job_Demands_5R		,792		
Job_Demands_6R		,882		
Job_Demands_7R		,506		
Extrinsic_motivation_1			,448	
Extrinsic_motivation_4			,801	
Extrinsic_motivation_7R			,623	
Satisfaction_5				,719
Satisfaction_6				,919
Satisfaction_17			,875	
Satisfaction_18			,606	
Desicion_Latitude_2	,739			
Desicion_Latitude_3	,862			
Desicion_Latitude_4	,475			
Desicion_Latitude_5	,637		,369	
Desicion_Latitude_7	,509			
Desicion_Latitude_8	,485			

During the factor extraction phase, it is very important to study the table of common factor variances (communalities) (table 6) which gives information about the percentage of variance of each variable that is interpreted by all the factors together. Satisfactory is considered a higher price of 0.5. Values between 0.3-0.5 are a candidate for removing a question, especially if it does not match well with any factor. If a variable shows less than 0.3 communality then it should be excluded from the analysis because it indicates an irrelevance to a factor (Fabrigar, 1999). In the present study, all questions that had a common factor variation between 0.3 and 0.5, were checked and weren't excluded because they didn't cause any problem.

**Table 13:** Communalities

<b>Communalities</b>		
	Initial	Extraction
Intrinsic_motivation_3	,598	,528
Intrinsic_motivation_6	,681	,581
Intrinsic_motivation_7	,737	,576
Job_Demands_1R	,726	,708
Job_Demands_3R	,691	,651
Job_Demands_4R	,811	,856
Job_Demands_5R	,662	,595
Job_Demands_6R	,773	,725
Job_Demands_7R	,549	,424
Extrinsic_motivation_1	,495	,401
Extrinsic_motivation_4	,649	,672
Extrinsic_motivation_7R	,470	,328
Satisfaction_5	,687	,670
Satisfaction_6	,677	,839
Satisfaction_17	,704	,728
Satisfaction_18	,630	,594
Desicion_Latitude_2	,725	,659
Desicion_Latitude_3	,762	,780
Desicion_Latitude_4	,521	,337
Desicion_Latitude_5	,708	,605
Desicion_Latitude_7	,568	,421
Desicion_Latitude_8	,648	,418

Extraction Method: Maximum Likelihood.

For each variable, its relative specific weight (factor loading) is then calculated, which shows how much it is related to the specific factor. The larger it is, the more important this variable is for interpreting the factor. Empirically, a value above 0.5 means that the variable contributes significantly to the interpretation of the factor. In the present study, almost all the relative specific weights of the individual questions (variables) exceed 0.5 and are therefore considered satisfactory, as shown in the pattern matrix table (Table 13).

The two basic qualities of a psychometric scale are reliability and validity. The first refers to the consistency or consistency of the responses to the scale and the second to the determination of whether the scale actually counts for what it was constructed. Among the



different types of reliability and validity, internal consistency reliability and construct validity stand out. This study focuses on these two types. The reliability of the internal consistency of a tool's measurements refers to the extent to which questions measuring the same psychometric feature have a high coherence or correlation both with and with that feature. The reliability of this form is usually assessed through a reliability index or coefficient, with the Cronbach coefficient  $\alpha$  being the most common. Indicator values around 0.7 are usually considered satisfactory. In the present study Cronbach's Alpha, a coefficient was calculated with the statistical program SPSS 22.0, for each of the 5 studied factors separately. The Cronbach's Alpha for the intrinsic motivation is 0,848 (3 items), 0,685 for extrinsic motivation (3 items), 0,904 for Job demands (6 items), 0,788 for Job satisfaction (4 items) and 0,851 for Decision latitude (6 items). Afterwards the Cronbach's Alpha were again measured using the Smart-PLS 3.0 software. Job Motivation, which consists of intrinsic motivation and extrinsic motivation scores 0,708 Cronbach's Alpha, Job satisfaction scores 0,791 and job stress which consists of Job demands and Decision latitude, scores 0,842 (Table 14).

**Table 14:** Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Job Motivation	0.708	0.805	0.831	0.580
Job Satisfaction	0.791	0.993	0.830	0.564
Job Stress	0.842	0.878	0.873	0.507

## 4.2.2 Confirmatory Factor Analysis-CFA

CFA is used to determine whether a predetermined framework of relationships between some variables is confirmed in practice by the study data. In this approach, the model describing the model of the relationships to be tested is formulated on the basis of pre-existing knowledge and / or relevant research experience. This model is called complete because it consists of both a measurement model, which depicts the connections between observable and latent variables and the correlations between the latter, and a structural relations model, which depicts the connections (correlations and dependencies) between to the latent variables themselves (Platsidou, 2001).

In the present study, the confirmatory factor analysis was performed by creating a Structural Equation Modeling (SEM) model, using the specialized statistical program SMART-PLS 3. In the structural model of equations created, through the PLS Algorithm submenu, Construct Reliability and Validity were tested (Table 14), according to which the Cronbach a coefficient

for each of the identified factors are almost identical to those that emerged from the EFA and very satisfactory. Also, all the sub-indices of Composite Reliability (Composite Reliability), which exceed 0.8, are particularly satisfactory. Finally, at the level of the Convergent Validity rating, the AVE (Average Variance Extracted) index is for all the factors we study above the acceptable limit of 0.5 confirming that they are adequately measured by their variables (Table 14) (Hair, 2011). Discriminant Validity was then checked to determine the "independence" of each factor, ie it is completely distinct from all others (Henseler et al. 2015). This is confirmed by the Fornell-Larcker criterion, according to which the AVE index for each factor must be higher than the larger quadratic correlation of the factor with any other (Table 15) (Hair et al. 2011; Fornell & Larcker, 1981).

**Table 15:** Fornell-Larcker Criterion

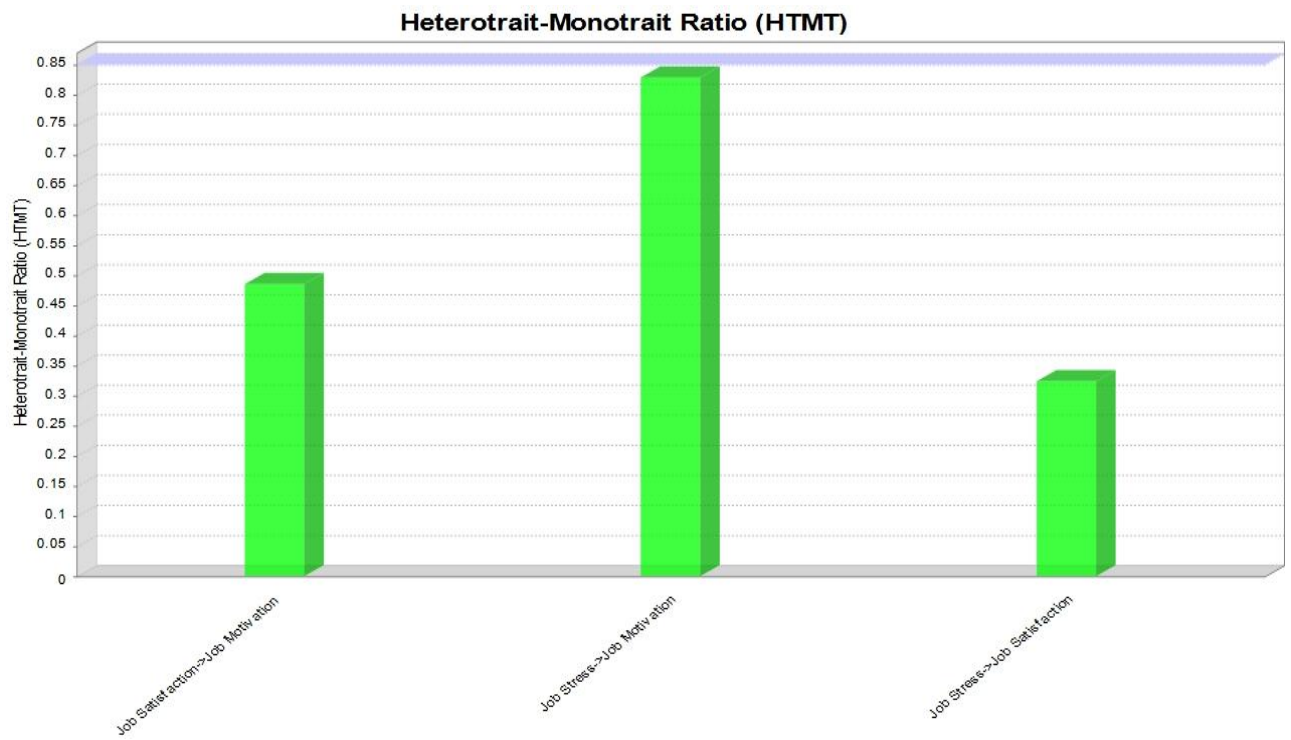
	Job Motivation	Job Satisfaction	Job Stress
Job Motivation	0.762		
Job Satisfaction	0.317	0.751	
Job Stress	0.690	0.248	0.712

Also, in addition to the Fornell-Larcker criterion, the discriminant validity was checked with the HTMT criterion (Heterotrait-Monotrait Ratio) (table 16)(Graph 1), which was found satisfactory and exceeded some of the SMART-PLS program limits (Henseler et al. 2015)

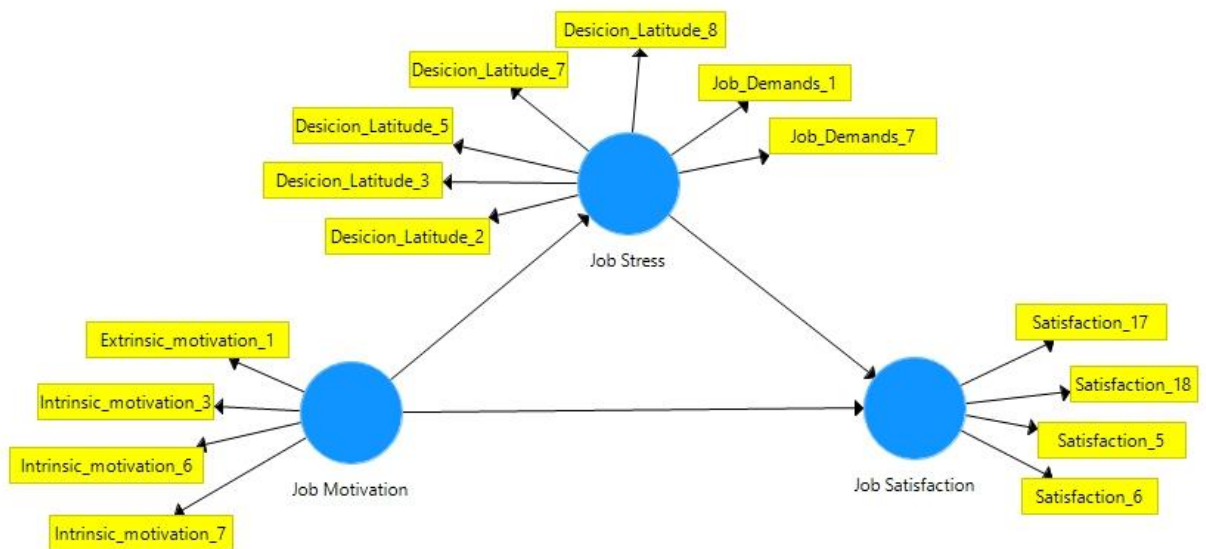
**Table 16:** Heterotrait-Monotrait Ratio (HTMT)

	Job Motivation	Job Satisfaction	Job Stress
Job Motivation			
Job Satisfaction	0.485		
Job Stress	0.829	0.324	

**Graph 1: Heterotrait-Monotrait (HTMT)**



After the reliability and validity checks that were performed, it was structured schematically the following relationship model (**Figure 4**), in the SMART-PLS program:



In order to test the hypotheses formulated for the probable correlations between the studied factors, the bootstrapping process was performed, with a control of 2000 samples (sub-samples) (Hair et al. 2011), from which the following tables (table 17) (table 18) was obtained where they are shown in detail. the correlation coefficients for each path (coefficients), the statistic t, but also the level of importance for each of them (p-value, significance).

**Table 17: Total Effects**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Job Motivation -> Job Satisfaction	0.317	0.328	0.063	5.007	0.000
Job Motivation -> Job Stress	0.690	0.693	0.032	21.370	0.000
Job Stress -> Job Satisfaction	0.056	0.074	0.096	0.584	0.559

**Table 18: Specific Indirect Effects**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Job Motivation -> Job Stress -> Job Satisfaction	0.039	0.051	0.067	0.578	0.563

From Tables 17 and 18, it appears that 2 of the possible correlations (paths) studied were found to be statistically significant, where the values of the t-statistics exceed the value of 1.96 for a 95% confidence interval, as well as p-values are less than 0.05 that we have defined as the significance level.

## 5. Results

The primary purpose of this study was to investigate the relationship between job satisfaction, job motivation and job stress. For that reason, 2 hypotheses were developed:

- 1) Job motivation has an influence on job satisfaction.
- 2) Job motivation has an influence on job stress.

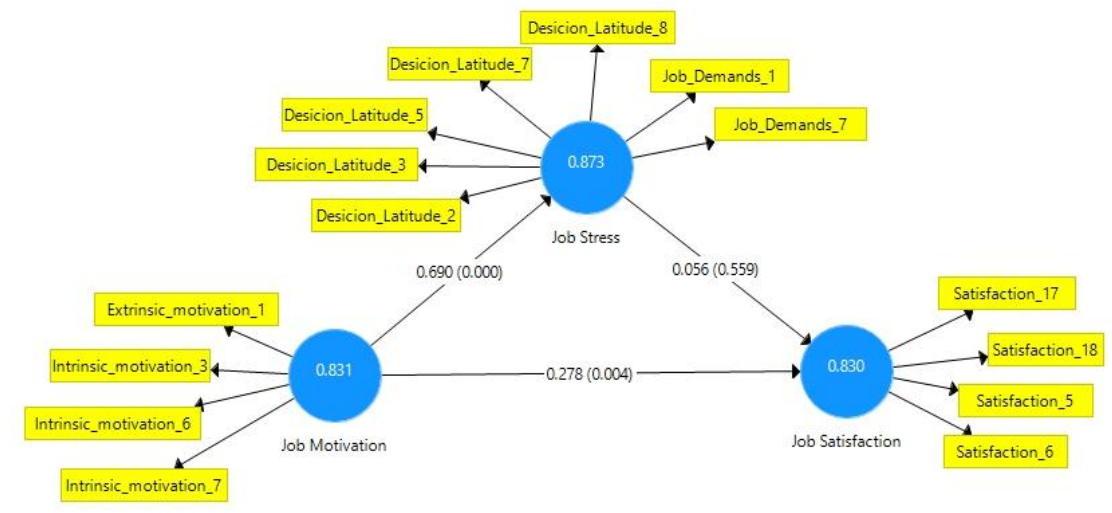
In order to accept or reject these hypotheses, both the total indirect effects (table 10) and the specific indirect effects (table 11) between the factors studied were examined.

- Job motivation has a statistically significant positive influence on job satisfaction, because the t-statistic value is 5,007 (>1,96), while p-value 0,000 (<0.05). So the hypothesis number 1 is accepted.
- Job motivation has a statistically significant positive influence on job stress, because the t-statistic value is 21,370 (>1,96), while p-value 0,000 (<0.05). So the hypothesis number 2 is accepted.

Due to the strong relationship between job motivation and job satisfaction, it can be stated that work related stress doesn't work as a mediator in the present paper. This could be

explained by the current situation, during the pandemic of COVID-19, while all healthcare professionals are determined to exceed their capabilities and have accepted the high levels of stress in their work environment.

All of the above are illustrated in the following concise two-step approach model of **Figure 5**:



Also, by studying the "outer weights" of the components of total motivation (table 19), in intrinsic motivation it is very important to be able to grow and develop as a person.

**Table 19: Outer Weights**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Desicion_Latitudo_2 <- Job Stress	0.238	0.237	0.013	18.223	0.000
Desicion_Latitudo_3 <- Job Stress	0.272	0.270	0.018	15.011	0.000
Desicion_Latitudo_5 <- Job Stress	0.287	0.281	0.040	7.133	0.000
Desicion_Latitudo_7 <- Job Stress	0.223	0.222	0.021	10.699	0.000
Desicion_Latitudo_8 <- Job Stress	0.174	0.173	0.015	11.491	0.000
Extrinsic_motivation_1 <- Job Motivation	0.166	0.154	0.083	2.005	0.045
Intrinsic_motivation_3 <- Job Motivation	0.373	0.372	0.020	18.556	0.000
Intrinsic_motivation_6 <- Job Motivation	0.359	0.359	0.022	16.300	0.000
Intrinsic_motivation_7 <- Job Motivation	0.371	0.369	0.016	23.548	0.000
Job_Demands_1 <- Job Stress	0.047	0.049	0.039	1.192	0.233
Job_Demands_7 <- Job Stress	0.090	0.091	0.034	2.602	0.009
Satisfaction_17 <- Job Satisfaction	0.183	0.153	0.129	1.418	0.156
Satisfaction_18 <- Job Satisfaction	0.038	-0.003	0.192	0.197	0.844
Satisfaction_5 <- Job Satisfaction	0.587	0.587	0.108	5.438	0.000
Satisfaction_6 <- Job Satisfaction	0.374	0.358	0.079	4.743	0.000

## 6. Conclusions

The main purpose of this paper was the investigation of the relationship between job satisfaction, job stress and job motivation of healthcare professionals in Greece. Job stress consists of two parts, job demands and decision latitude (Karasek, 1979). In the same context, job motivation consists of extrinsic motivation, also known as hygiene factors, and intrinsic motivation, known as motivators (Herzberg, 1987).

According to a research held by Noermijati and Primasari (2015), motivational techniques have a positive correlation with work performance, work-related stress positively or negatively affects performance, and satisfaction has a significant correlation with work performance. Many studies support a positive correlation between employee motivation and performance (Koesmono, 2006; Alonso & Lewis, 2001; Chaudary et al., 2012; Ali et al., 2012). The present study comes to the conclusion that job motivation has a significant positive influence on job satisfaction and job motivation has a significant positive influence on work related stress.

Regarding to work-related stress, the literature review concluded that there is a direct relationship between work related stress and job satisfaction. Rozi (2006) argued that there is an indirect dependence of performance on work stress through job satisfaction. Tobing (2009) supports the existence of a significant positive influence of satisfaction on the performance, stating that an employee's performance will improve when the same employee is satisfied with his or her work. According to Wai (2013), there is a significant correlation between motivation and work-related stress. Higher levels of stress lead to reduced motivation and vice versa, while poor management of employee skills is a very important factor in reducing employee perceived motivation levels. Many employees feel that some of their skills remain untapped, while others do not fit into their job, so they can't grow and show their true value. In the present study, the influence of job stress on job satisfaction can't be directly defined because of the statistic parameters ( t statistic value is 0,584 (>1,96) and the p-value is 0,559 (>0,05)).

According to numerous studies, healthcare professionals are affected by a higher percentage of diseases related to stress and depression (Caplan, 1994; Firth-Cozens, 2003) compared to the general population. They also have increased rates of psychotropic medication use (Aulagnier et al., 2004; Domenighetti et al., 1991), but also suicidal tendencies (Schernhammer et al., 2004). General practitioners report low levels of job satisfaction (Calnan et al., 1994; Murray et al., 2001), while many consider changing medical specialty or even occupation (Davidson et al., 2001; Sibbald et al., 2003; Thommasen et al., 2001). This may be due to the difficulty of adapting to new industry requirements and constraints

(Edwards et al., 2002). Burnout syndrome can have significant consequences for the healthcare services provided. Lack of job satisfaction and attachment to work are the most common consequences (Ahola et al., 2008), followed by a deterioration in the quality of care (Shanafelt et al., 2002). Finally, it is significantly associated with an increased prevalence of mental health problems and the consumption of psychoactive substances (Cathébras et al., 2004; Gundersen et al., 2001; Linzer et al., 2001), with cardiovascular diseases (Honkonen et al., 2006) and with sleep problems (Vela et al., 2008).

After a thorough literature review, a strong and direct relationship between work-related stress and burnout syndrome is proven (Gandi et al., 2011). At the same time, leadership (Salanova et al., 2011) and decision-making processes (Mohammed et al., 2013) must be taken seriously into account when shaping professional performance, as well as other characteristics such as working hours or the epidemiological characteristics of the local service area (Trinkoff et al., 2011). With the right leadership, a work environment can be established that promotes employees' self-confidence and job satisfaction (Wang et al., 2012), but always taking into account their feelings, values and views (Gurkova et al., 2011). The present study confirms the great influence decision latitude has on job stress (table 12).

## **7. Suggestions**

The findings of the present research show the importance of job motivation on job satisfaction and work-related stress. One of the first steps an organization must take to address and prevent work-related stress is to provide training. These training programs will focus on managing work stress, time, and organizational change (St-Jean, 2008). By providing time management training, a significant source of work stress is approached, which is lack of time (Lorrain & Laferte, 2006). As characteristically stated by Alis et al. (2011) "People need to manage their time if they want to reduce their stress". Legeron (2004) cited changes in the workplace as a major source of stress. Thus, with training in change management, an important psychosocial stress factor is bent (Vandenberghé & De Keyser, 2004). According to research by the American insurance company "Saint Paul Fire and Marine" conducted in 22 American hospitals, there are some preventive measures to manage work stress and improve business results. The proposed actions included 3 axes: 1) training of both employees and management, on occupational stress issues, 2) changes in hospital policies and operations to reduce operational stress factors and 3) organization and establishment of employee support programs. The results showed a fifty percent reduction in wrong drug prescription and a seventy percent reduction in medical errors (Jones et al, 1988). Finally, according to the Bureau of Labor Statistics, employees suffering from work-related stress and related disorders are absent from work for an average of twenty days more (Bureau of Labor Statistics, 1998).

Finding effective measures to deal with burnout and work-related stress is important because it is expected to have benefits for both the employee, the organization and society. Maslach and Leiter (1997) developed a model that focused on the causes and measures for burnout, in which they highlighted the major contribution of the "mismatch" effect. In this situation there is a mismatch between the employee's skills and the job position. The greater this discrepancy, the greater the chance of developing burnout syndrome. Mismatching can occur at various stages of the work and is due to workload, lack of control, lack of justice and conflicts. Thus, it is very important to take all precautions in order to design and match the right candidate to the right work position.

Michie and Williams (2003) conducted a systematic literature review of 40 studies on reducing work-related stress and absenteeism due to illness. They pointed out as effective measures: 1) training and increased participation in decision making and problem solving, 2) increased support and feedback, 3) better communication of information. Schaufeli and Enzmann (1998) in a similar review of burnout treatment concluded that most interventions were general body reorganization strategies rather than individualized burnout treatments. They also suggested that individual cognitive and behavioral strategies are extremely effective in treating the exhaustion component of burnout syndrome. In conclusion, it is crystal clear that interventions aimed at preventing and treating burnout syndrome should be addressed at all levels of the working cycle, including the organization, the individual and society.

First of all, stress management training helps the employee to understand the spectrum of stress: what it is, where it is due, how it affects a person and which are the common symptoms. By understanding these principles, the process of dealing with it becomes much easier, focusing either on a localized problem or on the general attitude of the employee. It is easy to see that the focus on the problem involves factors that are not always easy to change at will, such as the availability of resources. Focusing on the person involves all the activities that will help him relax and unwind, such as physical activity or meditation techniques.

As already mentioned in the motivation part, the help from a specialized professional, called a business coach, is very useful. In addition to helping motivate employees, Pluchart (2012) observed that support from such a professional can help improve the emotional consequences of work-related stress. Although there are some critics of the participation of coaches in work events (Gori & Le Coz, 2007), who argue that this medium becomes a kind of control and freedom of expression is obstructed, many researchers are in favor of their participation (Wright, 2007; Gharbi & Torres, 2013). St-Jean and Audet (2009) emphasized that it is



equally important to improve various psychological variables, such as a sense of security, self-image or perception of personal contribution.

Francois-Philip de Saint-Julien et al. (2010) suggested that increasing participation and commitment to work may reduce feelings of anxiety and work-related stress. Health professions are characterized by unpredictability and a sense of urgency. People do not choose when they will get sick, so it is common for doctors to be called in for emergency care. Nevertheless, it is necessary to establish a balance between personal and professional life. According to Barel et al. (2009), this balance is necessary to improve employee productivity and protect them from work stress.

Many times, especially in the private sector where there is fear of losing a job, employees do not give any indication of work-related stress, except when the problem is already inflated. All companies need to have a work-related stress management plan, whether or not there are obvious signs of the problem. The implementation of such plans depends to a large extent on the size of the business as well as the resources that can be allocated to the specific sector. These plans can be presented in three simple steps: 1) Problem identification, 2) Planning and implementation of interventions, 3) Measuring results and evaluating interventions (The National Institute for Occupational Safety and Health, 2014):

1) Problem identification: Includes all actions made in order to obtain information about a problem or a situation. The most common sources of information are discussions between supervisors, discussions with employee representatives, personal interviews with employees and questionnaires. The information that the company will collect concerns the perceived, by the employees, working conditions, the stress levels, their health condition and their job satisfaction.

2) Planning and implementation of interventions: Once the problem and its context have been identified, the planning of response actions can begin. For small organizations, the discussions that took place in the first step are enough to identify possible interventions. For medium and large organizations this step is usually implemented by a group of employees, in charge of the specific purpose or with the participation of external consultants. The axes that make up the second stage concern the identification of sources of stress for change, the planning and prioritization of interventions, the communication of interventions to employees, and the implementation and evaluation of strategies.

3) Measuring results and evaluating interventions: Evaluation is necessary to determine whether the implemented changes have contributed to the improvement of results. At this stage it is important to establish a time frame. In order for the organization to receive accurate measurements, it must apply short-term and long-term evaluations. The measurements

concern employees' perceptions regarding working conditions, stress levels, personal health status and job satisfaction. At the same time, the evaluations should include objective indicators such as, for example, the costs for healthcare services or the days of absence from work, while the final step includes the overall evaluation of the interventions and the return to the initial stage.

## **8. Restrictions**

The present research was conducted during a very challenging period, during the pandemic of COVID-19. As a result, medical staff especially from the public sector, could state higher levels of job stress. This could be due to heavier workload, deficiencies in equipment and / or understaffed facilities. Conducting a similar research during a normal period of time could lead to different results. It would be very interesting to break down the research in two distinguish parts, one for workers in the public sector and the other one for the private sector. In that way, it would be possible to highlight the most important motivators, as well as the demotivators of each sector. By separating the sample under investigation in two different categories, the questionnaire could be presented with higher statistic features and indicators.

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