Original Article

Analysis of Determinant Factors of Conflict in Greek Hospitals

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Abstract

Background: Hospitals constitute workplaces in which working conditions have specific features that favor the appearance of conflict.
Objective: In this article, the causes and main factors expected to affect the appearance, characteristics, and size of conflicts in hospitals in Greece are described. It aims at better understanding of the phenomenon of conflict in hospitals, by describing and classifying the determinants of conflicts according to their importance, as this importance is determined by each category of personnel in three Greek hospitals. Also, variations in the significance of determinants are justified for categories of personnel.
Methodology: The paper employs statistical data obtained from a survey carried out in three large hospitals in Greece, the AHEPA in Thessaloniki, the University Hospital of Larissa and the Hospital of Karditsa. In this survey, doctors, nurses and other hospital staff participated and questionnaires were distributed to them randomly.
Results: The results comes from the analysis bring out the overall characteristics of conflicts that occur in Greek hospitals, the groups connected with these conflicts, the factors contributing to their emergence, as well as the classification of these factors according to their significance.
Conclusions: The findings of this study reveal that issues such as workload in the workplace, weaknesses in hospital, competition among employees or attitudes adoption, style of management of hospital manager, problematic behavior of patients and problematic behavior of escorts are important factors contributing to the occurrence and control of the conflict.
Implications: The findings of this research may help hospital managers as well as personnel to eliminate the negative effects of conflicts or exploit them for an efficient operation of their hospital or health organization.
Originality/value: Literature in conflict management in Greek hospitals is rather poor and consequently, every new research in this scientific field helps to understand this phenomenon and its effective management.

Keywords: Hospital management, Greek hospitals, conflict management, conflict determinant factors.

Introduction

In hospitals, conflict is a frequent phenomenon. Nowadays, hospitals constitute complex organizations that include many professional teams with different levels of education, where there is a need for interdisciplinary collaboration on clinical objectives. The need for interdisciplinary cooperation between workers increases the degree of their interaction, which contributes potentially to increased conflict generation (Maniou, 2011; Al-Hamali et al, 2013; Moisoglou et al, 2014). Intense stressful environment of health organizations contributes significantly to creating conflicts. Moreover, financial crises, during which are limited resources, the need for changes very often consequent adverse situations accompanied by controversies and conflicts.

Background

The types of conflict occurring in a hospital setting can be distinguished in interpersonal involving two or more people, intragroup involving the personnel within one group or department, intergroup involving two or more

groups (Leever et al, 2010). Moreover, conflict may occur between interdependent individuals and one group, causing negative emotional reactions to perceived disagreements.

The basic categories of conflict can be divided into:

(a) Between personnel of a department

These conflicts are a common occurrence and in most cases are related to internal factors of the department. The most frequent conflicts arise between medical and nursing staff and the majority of them concerns cooperation issues (Danjoux et al, 2009; Breen et al, 2001).

(b) Between cooperating groups

These conflicts usually arise when personnel are in competition or exchange inadequate information about patients, followed treatments, and when create unrealistic expectations for treatment of patients, as well as other less important issues (Studdert et al, 2003). Disagreements among medical personnel or health professionals may create problems, since the appropriateness of the treatment provided is disputed, as well as the necessity a patient to be imported in intensive care and other relevant medical or non-medical issues. It is argued that existence of departmental divisions leads to "in-group favoritism" and "out-group discrimination" (Cowman and Keating, 2013).

(c) Between departments and the patient's family or escorts

Patient family often intervenes on type and quality of treatment, medical personnel react to such interventions and sometimes succumb to pressures. Another frequent cause of disputes is related to the necessity or not of the introduction of the patient in a clinic or his withdrawal. It is a common phenomenon the aggressive behavior of patient family when it has been informed about a treatment failure, especially in patients who appear negative trends in health status or family's weakness to carry out its wishes for patient, blaming doctors and nurses for possible adverse evolution in patient's health, disputing personnel's knowledge and skills (Danjoux et al, 2009).

Table 1: Characteristics of the participants

		%
Gender		
	Male	31
	Female	69
Age		
	<30	13
	30-40	19
	41-50	29
	51-60	37
	>60	2
Educational level:		
	Higher school	12
	Technical school	21
	University	48
	Graduate degree	15
	PhD degree	4
Profession		
	Doctors	48
	Nurses	19
	Administrative employees	21
	Other profession	12

Method

The mapping of key features of conflicts that take place at 3 major hospitals in Greece, the AHEPA in Thessaloniki, the University Hospital of Larissa and the Hospital of Karditsa was pursued. 210 questionnaires were given for completing, randomly, while we had as main objective the number of employees in each of the three groups mentioned above and to which questionnaires were given to be proportional to the total number of each group. 156 questionnaires were returned completed, while 54 questionnaires did not return belonged to people who were late to return them, or were people in our assessment showed a reluctance to complete them. Table 1 shows the respondents' characteristics.

Results and evaluation

(a) Frequency of conflicts

The frequency of conflicts observed in the hospitals is shown in Figure 1, and it has as follows: "very often" replied a 14%, "often" a 29%, "sometimes" a 38%, "rarely" a 19% and no one of the respondents believe that there are not conflicts.

From the above, it is concluded that a 43% believe that conflict are caused frequently, while none of the doctors believe that conflicts caused very often or at least do not interpret them as conflicts. Also, there are differences in the rates corresponding to the categories of personnel, while doctors perceive less frequently conflicts with regard to other personnel.

(b) Groups among which usually conflicts occur

The groups in regard to frequency of conflicts were evaluated by respondents, who rated each group with respect to the frequency of the conflict appearance, in the scale 1 to 20. Thus, the results give the key groups, in which conflicts occur more frequently and they are as follows:

- The groups, in which the most conflicts arise, using the criterion that they received the largest percentage of the 20-point grading scale in the interval 15-20, are «*doctor or nurse and patient escort*». These groups, as Figure 2 shows, were selected from approximately 58% in the interval 11-20 and 35% in the interval 16-20 of the scale.
- The next choice is the conflicts «*Between nurses*», which was chosen by approximately a 46% in the interval 11- 20 and a 27% in the interval 16 – 20.
- As a third option, regarding the groups with a high frequency of conflicts, it was chosen groups "*doctor or nurse*" and "*administrative officer*" with 35% in the interval 11-20. As Figure 2 shows, there is a large and perhaps "biased" concentration of responses in the interval 16 - 20.
- The frequency of causing conflict is less between the groups "*doctor*" and "*nurse*", since approximately a 45% has chosen this kind of conflict in the interval 11-20.
- The following categories included in the survey have fewer conflicts frequencies in the highest rates in the interval 1-10 of the scale. Regarding the frequency with which observed conflicts between "*nurse*" and "*patient*", a 35% of respondents has chosen the interval 11-20, as Figure 3 shows.
- Moreover, it is smaller the conflicts occurred in the high-grade intervals of scale between "*doctor*" and "*head of department*", since in this category at the interval 11-20 it is recorded a 40%. Depending upon the results in the category between "*head of department*" and "*nurse*", since the brunt of responses falling in the interval 0-10 of the scale, while in the interval 11-20 it has chosen by a 39%.
- The following categories concentrate the majority of replies in the lower intervals of the scale. Thus, the conflict frequencies between "*doctors*" and "*patient*" collected in the interval 1-20 approximately a rate of 33%. The same are the results concerned the conflicts between "*doctor*" and "*doctor*", since the answers for these groups in the interval 1-20 corresponds a rate 33%, while the least preference received in the interval 11-20, the group "*patients*" vs "*patients*" since a rate of 28% replied positively for this category, as Figure 4 shows.

Synoptically, as Figure 5 shows, the key groups involved in conflicts may be formulated as follows: (a) group of doctors, (b) group of nurses, (c) group of administrative and other staff and (d) group of patients and their escorts. These groups work in interdependence and conflicts occur mainly between the groups, but in some cases within the same group.

In conclusion, the most frequent conflicts appear among (a) "*doctors*" or "*nurses*" and "*patient*

escorts", (b) "*nurses*" and (c) "*doctors*" or "*nurses*" and "*administration officers*". On the opposite side, i.e. less with a small effect on the operation of hospitals, conflicts occur among "*doctors*" and "*patients*", between "*doctors*" and finally between "*patients*".

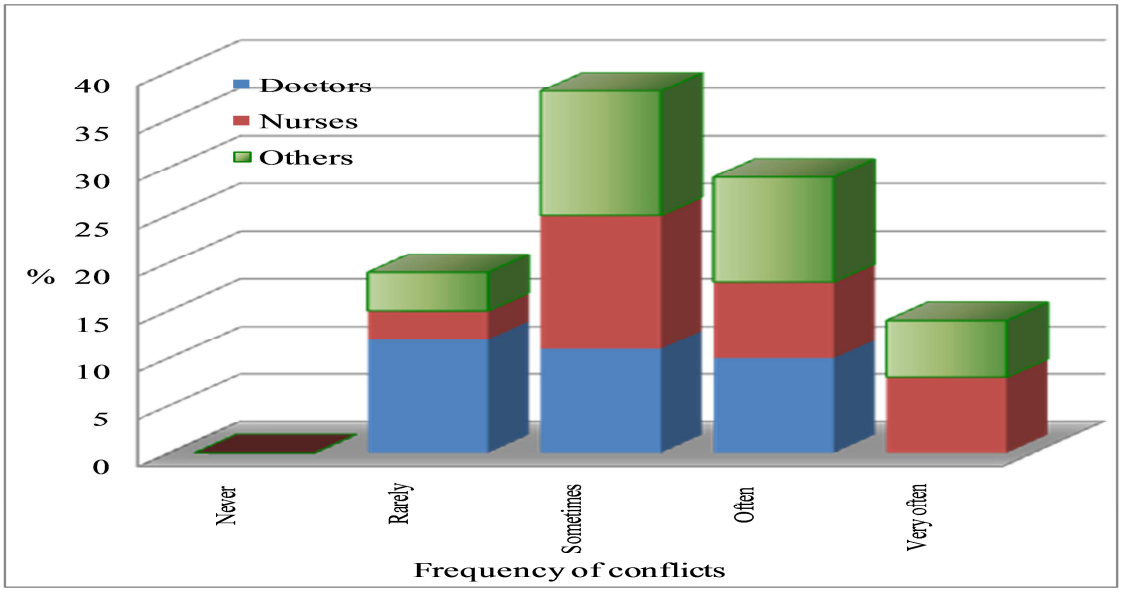

Figure 1: The frequency of conflicts

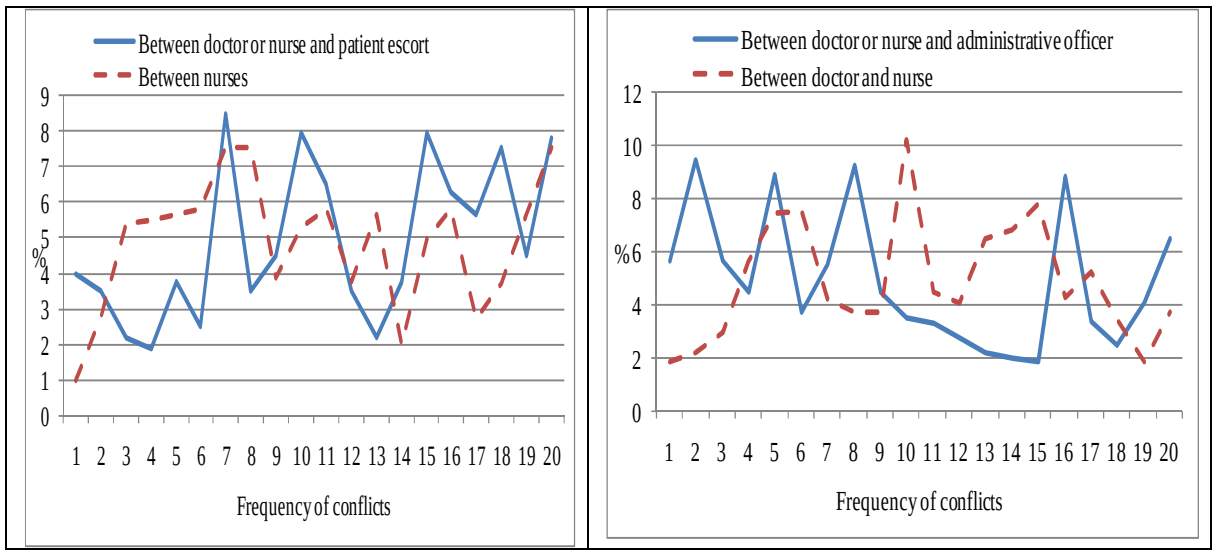

Figure 2: The conflicts between (a) doctor or nurse and patient escort, (b) nurses, (c) doctor or nurse and administrative officer, (d) doctor and nurse.

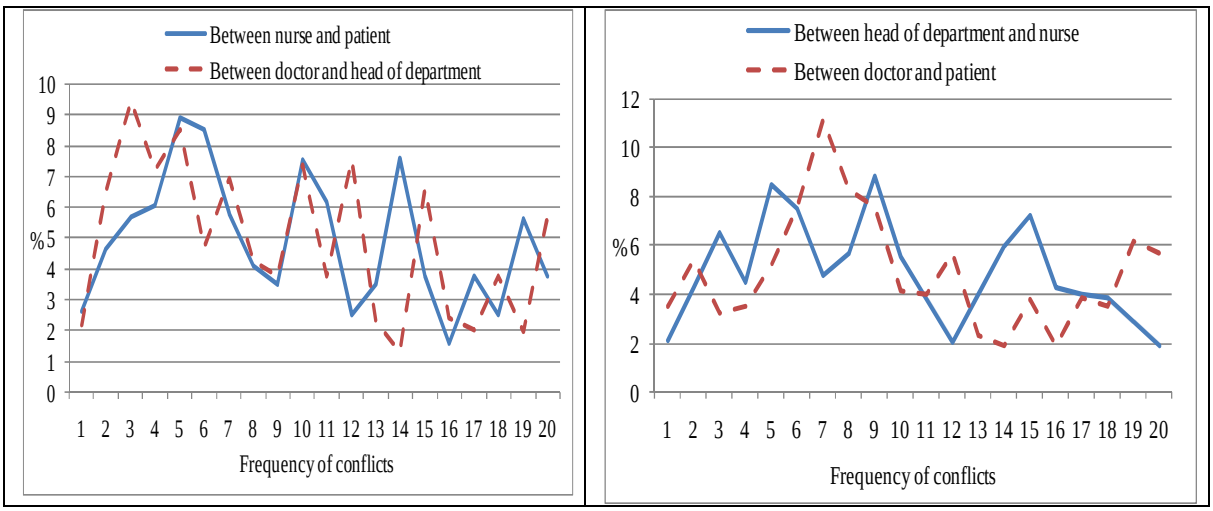

Figure 3: The conflicts between (a) nurse and patient, (b) doctor and head of department, (c) head of the department and nurse, (d) doctor and patient.

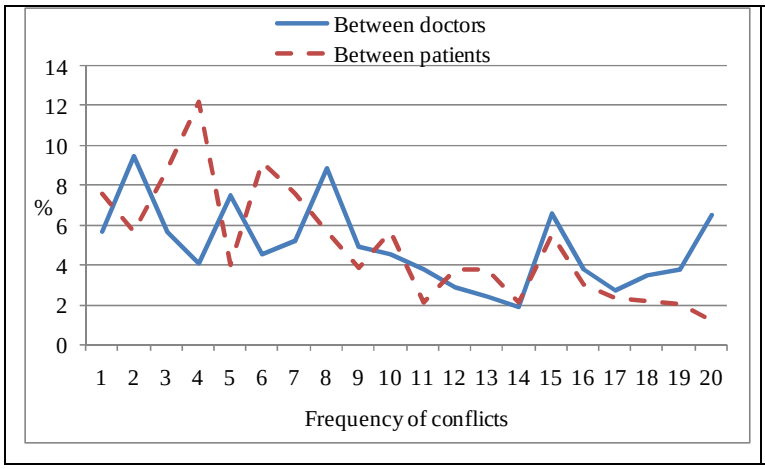

Figure 4: The conflicts between (a) doctors (b) patients

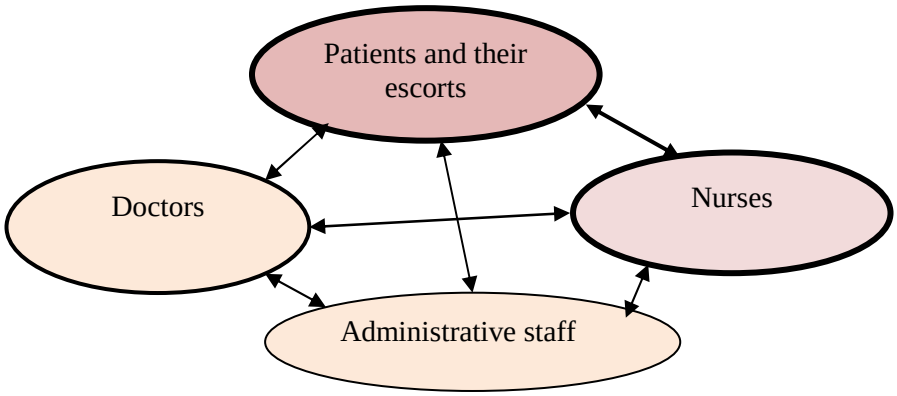

Figure 5: The groups participated in conflict in hospitals

Causes that contribute to the emergence of conflicts

The distribution of questions - answers, regarding the factors which cause most conflicts in hospital settings, was also on the scale from 1 to 20. Then, the hierarchy of causes that contribute to the appearance of conflict will be made, taken into consideration the aspects of recorded in the survey personnel and starting from the causes that received high marks in the interval 11-20 of the 20-point scale.

Based on the aggregated survey results and depending on the marks received on the scale 1-20, the factors can be classified into three categories: (a) important, (b) less important and (c) relatively insignificant. Specifically in the category "important factor" we place the following:

The factor "*workload in workplace*" has been selected by a percentage 71.15% of all respondents as the main cause of conflict creation, a finding that coincides with the views of other researchers (Stathopoulou, 2006; Maniou, 2011).

The factors "*weaknesses of structure in the organization*", the "*bad working conditions*" and "*competition between employees or attitudes adoption"* follow, which have been selected from a rate 64 to 67.3%. The choice of weaknesses of the organization structure includes elements such as the division of labor and assigning tasks to employees, their false manipulations during the participation in structure of power, as well as the heterogeneity and interaction of staff. Except of the aforementioned, in the category bad conditions in the workplace the “lack of staff” can be also added. It is also very likely a collision to occur when two people or groups interact in a competition and one side tries to increase the power that is highlighting the needs, objectives, and positions in order to exploit the other hand whenever possible (Slettebø et al, 2017).

In the next position of the hierarchy is the factor "*bad behavior of patients*", which has been selected by approximately a rate of 63.6%. This behavior may be due either to poor hospital operating information on the part of patients, either in wording excessive demands by patients from doctors and nurses and even the bad conditions in the hospital, such as lack of staff.

The factor "*deficiency of available resources*" has been selected from a rate 62.32%. This course can be explained by ignorance, lack of adequate information and non-participation of personnel in decisions concerning the resource management, as well as the responsibility of which has been the director of the organization.

For the factor "*style of management in hospital*", the chosen percentage is 61.53%. By this option, the personnel argue that the authoritarian - exploitative management style is an important reason for collision causation between personnel, as the decisions undertaken at the top of the pyramid of the hospital without the participation of employees. Also, the style of hospital management is connected with the solution of previous conflicts that have arisen in the past in hospital. In case these conflicts remain unresolved, the negative effects help to appearance of new conflicts (Skjørshammer and Hofoss, 1999; Skjørshammer, 2001).

The "*bad behavior of escorts*", which can be derived from their particular individual characteristics, their emotions, poor conditions in hospitals, lack of awareness and information, their different expectations regarding the behavior of workers in the health sector (Stathopoulou, 2006), has been selected by a percentage of 59.6%, as a major cause for creation of conflict in space of hospital.

In the category of *less important factors*, according to the available answers, the following factors are included:

The factors "*interdependence between the opposing members of the teams*" and "*poor communication*" have been selected by 53% and 53.8% respectively. Concerning the first factor, when two or more groups in an organization are depended on each other in their task, this connection may create a conflict (Swansburg and Swansburg, 2002). In making decisions, the asymmetrical interdependence affects the level of trust and commitment of groups and fuelling conflict. Moreover, an ineffective communication between individuals and groups in an organization lead to misunderstandings and conflicts (Huffstutter et al, 1997; Pettersen and Nyland, 2012).

Table 2: Incidence of conflicts between groups

Groups	$W_i = \sum_{i=1}^{20} w_i x_{ij}$	Groups	$W_i = \sum_{i=1}^{20} w_i x_{ij}$
Patient - Patient	1245	Nurse - Patient	1500
Doctor - Head of department	1446	Head of department - Nurse	1524
Doctor - Doctor	1473	Doctor - Nurse	1647
Doctor - Patient	1485	Nurse - Nurse	1674
Doctor or nurse - Administrative officer	1491	Doctor or nurse - Patient escort	1857

Table 3: Hierarchy of causes that contribute to appearance of conflict

Causes	$W_i = \sum_{i=1}^{20} w_i x_{ij}$	*Causes*	$W_i = \sum_{i=1}^{20} w_i x_{ij}$
Introduction of innovation in workplace	1521	Indifference of nurses	1771,5
Formality	1638	Style of management of hospital manager	1950
Individual factors	1641	Bad behaviour of escorts	1971
Uncertainty of personnel	1647	Bad behaviour of patients	1992
The non-participation of personnel in decision-making	1680	Impairment of available resources	2016
Differences in the hierarchy and the position of each employee	1722	Competition among employees	2049
Interdependence of members or groups	1728	Poor working conditions	2076
Style of management of head of the department	1740	Weaknesses in work allocation	2089,5
Domineering behaviour of some doctors	1744,5	Workload in workplace	2095,5
Poor communication	1746		

Table 4: The stages in which conflict is managed

Stage	$W_i = \sum_{i=1}^{20} w_i x_{ij}$	Stage	$W_i = \sum_{i=1}^{20} w_i x_{ij}$
In the first differences	***1353***	The results is managed	***1917***
The conflicting try to find the causes	***1476***	The conflict is evident	***2094***
The conflict takes emotional dimension	***1890***		

Table 5: The techniques used to address conflict

Technique	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$	***Technique***	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$
Collaboration is selected	1425	A compromise seeks	1860
Management is avoided	1512	Power is used	2025
Peaceful coexistence is maintained	1668		

Table 6: The areas where conflicts positively affect

Positive effects	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$	***Positive effects***	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$
Creation of consistency	1063,9	Improvement of interpersonal relations	1551
Personal development	1419	Assessment of group capacity	1605
Acceptance of authoritarian leadership	1428	Improvement of quality of solutions	1629
Attenuation of a more serious conflict	1452	Highlighting of problems	1711,9
Better allocation of resources	1491	Seeking for solutions to problems	1882,9
Avoidance of stagnation and apathy	1501,5		

Table 7: The negative effects of conflict

Negative effects	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$	***Negative effects***	$\mathbf{W_i} = \sum_{i=1}^{20} w_i x_{ij}$
Reduced productivity	*1907,994*	Increasing work-related stress.	*1956,998*
Demoralization.	*1934,987*	Disruption of interpersonal relations.	*2103,984*

The factors "*indifference of nurses*" and "*uncertainty of employees*" can be included, that have been selected as causes of conflicts by percentage 51.9%. The first factor may be considered as the cause of bad behavior of patients or their escorts. Concerning the factor "*uncertainty of employees*" respondents are of the opinion that the uncertainty in the workplace involves the risk of conflict, mainly as regards responsibilities.

Concerning the factor "*authoritarian behavior of doctors*", it has been chosen by percentage of 50.6%. So, it is verified the view that the authoritarian behavior of doctors who have dominated on some nurses included in conflict causes, as they create in nurses, nervousness, anger and disadvantage (Swansburg and Swansburg, 2002; Ylitörmänen et al, 2015).

In the third category of relatively insignificant factors the next factors are placed:

The factors "*style of management of head of the department*" and "*differences in hierarchy and position of each employee*" have been chosen by a rate 50,0%. By choosing the first of the above two factors respondents verify the general aspect, in which, when management decisions are at odds with what personnel regard as the soundest practice their confidence in the way leadership is undermined and a frustration climate is created (Huffstutter et al, 1997; Skjørshammer and Hofoss, 1999; Ylitörmänen et al, 2015). Regarding the second factor, such differences create hostile among team members, because there is a different degree of participation in decision-making, or in the distribution of wages. Also, it is reinforced the view that existence of stereotypes relating to the profession of nurses and doctors, often causes conflicts.

The factors "*non-participation of personnel in decision-making*" and "*individual factors*" has been chosen from a rate of 50.0%. For the first factor it has been formulated the aspect, that the rate of employee participation in decision making increases simultaneously with the rate of occurrence of a collision (Huffstutter et al, 1997). Regarding the second factor, an aspect has been suggested that different knowledge, skills, beliefs, values, attitudes, ideologies, temperaments, ages and interests of the personnel cause conflict in the workplace of organizations. This aspect has been identified with a rate 50% of respondents, while others believe that the individual factors do not contribute significantly to creating conflicts.

The other two factors are chosen by a rate of 48.0%, which believes that the factor "*introduction of innovations in the workplace"* is a cause of conflict in hospitals, while the factor "*formality*" corresponds to a rate of 44.23%. About the first factor, in many cases a resistance to change is developed, that unionization can impose restrictions on the pace of change (Cowman and Keating, 2013).

(d) Estimation of significance and ranking of the factors

This section applies a further qualitative analysis, in order to detect other aspects of the conflict-management problem. An analysis of significance will be made using the score given to each factor and the number of employees who have chosen this rating.

By symbolizing w_i the rating or the "weight" of each factor in the scale i=1÷20, x_{ij} the number of answers that corresponds to w_i for the factor *j*, we can create the product $w_i x_{ij}$. The summation of products gives the overall rating that takes each factor and simultaneously achieves the hierarchy of factors included in each query (Mosmans et al, 2002). Thus, the total score for each factor is calculated as follows:

$$W_i = \sum_{i=1}^{n} w_i x_{ij} \quad (1)$$

Where:

W_i = Total result for factor j.

w_i = Weight for each factor.

x_{ij} = Number of responses or the performance of factor j.

Using the results from the survey Table 2 was constructed, in which the frequency of conflicts between different groups is displayed.

Table 1 shows that the most serious conflicts occur between "*doctor or nurse*" and "*patient escort*", between "*nurses*" and between "*doctor*" and "*nurse*". These findings highlight the group of nurses as the most "crucial" in conflict management, since it participates in the most important conflicts.

The following analysis concerns the classification of the causes that contribute to the appearance of conflict. According to Table 3, the fourth major causes hierarchically are: "*workload in the workplace"*, "*weaknesses in work allocation*", "*poor working conditions*" and "*competition between employees*". In contrast, the fourth less important causes are: "*introduction of innovation in workplace*", "*formality*", "*individual factors*" and "*uncertainty of personnel*".

The steps that usually conflict management uses at hospitals are the follows:

- Once the first differences displayed in objectives and tasks of employees.
- When the opposing members are struggling to find the reasons that caused it.
- When conflict takes emotional dimension and personified by the participants.
- When the conflict becomes apparent through communication.

- They have managed only the conflict effects.

As it is shown in Table 4, the stage of management is one of the final stages, when the conflict is obvious and this choice cannot be regarded as the most effective.

Clearly, this choice on the part of those responsible for the conflict management is not optimal. An effective management process requires prediction of a coming conflict and measures for averting.

The main techniques reported in the literature and investigated are:

- Avoiding conflict management.
- Maintaining a peaceful coexistence of involved
- The pursuit of compromise.
- The use of power held by the key operator.
- The choice of cooperation and proposition of alternative modes of action.

The choice of technique to be used depends on various factors such as the characteristics of the work environment in the hospital, the management style applied, the framework of principles of head of department or hospital, the size of power held by the head of department etc. There are four criteria for comparing and selecting the best conflict resolution method for all cases of conflict: (a) the transaction costs, (b) the satisfaction from the outcome, (c) the impact on relationships and (d) the repeatability of conflict.

As it is shown in Table 5, the widely used technique is that in which the power is used, while at the opposite side is the technique which seeks the cooperation of the conflicting parties. Seeking a matching of the techniques used and the criteria set out above, the conclusion is that the criterion that prevails in management is transaction costs.

Because conflict management typically is done by director, while doctors are less involved as a group in conflicts caused compared with the other groups, the survey results are reasonable. Managers and doctors do not choose cooperation but the compromise, because they underestimate the consequences of conflicts. Also, doctors choose to manage conflict when it becomes obvious and interested in managing only the results of the conflict because the consequences of management in their daily lives are more limited compared with other groups.

The results concerning the positive effects and areas of which conflict positively contribute, will be analyzed following. The general hierarchy of sectors positively affected by the conflict appears in Table 6.

Of the surveyed sectors, the "*seeking solutions to problems*" and "*highlighting of problems*" appear to be the main positive effects of conflict. Instead, the emphasis in the preferences of the respondents for the "*creation of consistency in the department*" and "*personal development*" is limited, indicating that conflicts not enough use and their positive role in the operation of hospitals by doctors, who have a leading role in their management, is underestimated.

Following the previous analysis, we will see the hierarchical classification of the negative effects of conflicts in hospitals. As is apparent from a consideration of Table 7, the factor «*disruption of interpersonal relations*» is the biggest in the rankings, while less attention is given to the agent "*reducing of productivity*".

The depreciation of the factor «productivity» is most likely connected with the public nature of hospitals and limited direct control exercised on the effectiveness and efficiency of these bodies by the higher authority. Conversely, disruption of interpersonal relationships is a fact readily apparent to workers as a result of frequent clashes, which negatively affects their daily life within their working hours.

Of course, there is interdependence between the negative effects. It is logical that the disorder of interpersonal relationships affects personnel, creating demoralization, increasing work-related stress or reduces productivity and vice versa.We estimate that the hierarchy was related to factor to which employees give greater importance.

(c) Factors classification

Seeking the classification of the factors, according to their common characteristics, we can classify them into three basic categories:

(a) ***Internal***, related to characteristics of hospital environment and working conditions.

(b) ***Behavioral***, related to individual characteristics of workers.

(c) ***External***, related to characteristics both of patients and their escorts and they are not directly related to hospital conditions.

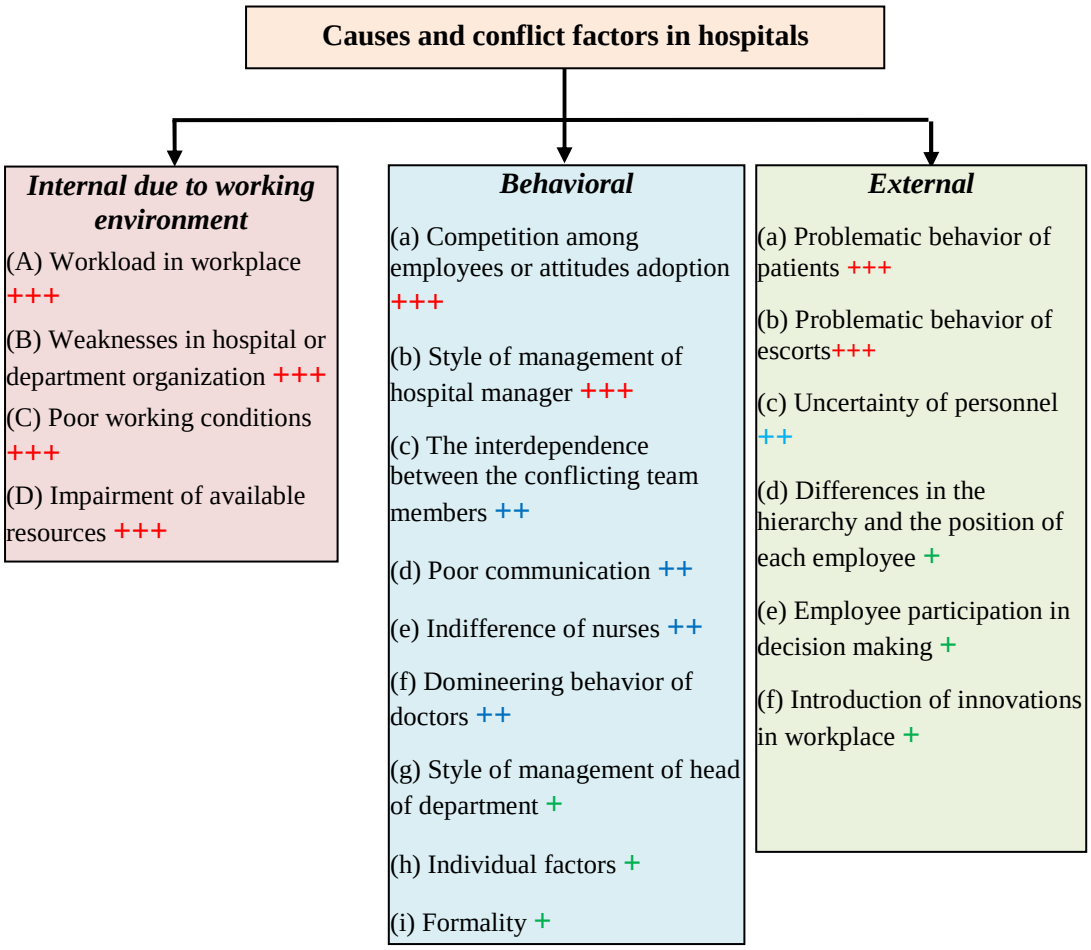

Diagram 1: Classification of conflict causes in hospitals according to their importance

Another classification based on these factors importance is shown in Diagram 1. There are three categories of factors, while each factor is scored according to its significance.

The symbol "+" shows the importance of each factor and we use "+++" in case factor is important, "++" for a less important factor, and "+" for factors that are relatively insignificant. The behavioral factors are the most, whereas the external follows and the internal due to the working environment are less. However, in terms of their importance, all the environmental factors are important, which is particularly significant for a successful conflict management.

Conclusions

The above analysis leads to the conclusion that the most important causes of conflict in hospitals are related to environmental conditions, competition among personnel, management style and behavior of patients and their escorts. Managing conflicts is of interest to both practitioners and researchers, whereas a successful management requires:

(a) The improvement of working conditions to reduce fatigue.

(b) Introduction of a transparent and meritocratic employee appraisal system.

(c) Introduction of a democratic way of administration.

(d) Effective management of patients and their escorts, providing all the information required for their effective dissemination and stress limitation coming from patients' health.

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