

## Work Satisfaction and Nursing Management: A Quantitative Study

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### Abstract

Nursing professionals, especially the hospital staff, develop their assistance activities in a demanding and stressing environment turning them into a collective with high levels of burn-out. The management of these teams has a direct effect on the work environment and the work satisfaction of the staff.

This study uses the bibliography available related to work satisfaction and the management of teams, as well as a quantitative study to study both object groups; managers and nursing assistance professionals.

The results obtained show that the work satisfaction is widely studied specifically in the industrial world, and it is not until recently that studies emerge on the health area.

The study with the nursing staff has described that managers wish to develop their wards/areas, but their administrative workload does not allow them, and they are not being trained for these activities. The assistance nursing staff refers to the absence of their manager for being engaged in other compromises.

Both collectives agree on the importance of team management as well as the influence it has over the work satisfaction of the staff. The study showed that nursing managers at directors or high management positions have a higher work satisfaction than assistance staff.

There are initiatives to define the functions of the nursing manager and are taking the steps for them to be developed and implemented, recognizing the value and influence of nursing managers in the work satisfaction.

**Keywords:** Job satisfaction; Manager; Nursing; Quality; Work environment

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### Introduction

Nursing profession is developing itself into the management area and increasing their responsibilities and commitment with patients, from direct assistance and nursing care as a need of its evolution and increased responsibilities and workload.

Up until 2005 [1], Spain had the specialty of "Management and Administration". It was a logical expansion of roles and specialties due to the clear increase in the workload and roles that the nurses were acquiring as members of the multidisciplinary medical teams.

With the suppression of this specialty in 2005, those nurses who had obtained it did not receive a similar specialty and the studies that allowed the nurses to obtain it were cancelled, leaving these professionals without their specialization and an alternative to their studies.

The specificity of concepts and techniques needed to develop the position of management in nursing can be compared to those needed for Obs-Gynae nursing, mental health in nursing, geriatric nursing of community nursing, being all of these recognized and official specialties in nursing [1]. These have their own personal training programs clearly defined with minimum requisites and conditions to be able to develop the activities as nursing specialists.

Spanish organizations such as the National Association of Nursing Managers (ANDE) or the Spanish Federation of health management (FEGS), are promoting the professionalization of the nursing managers by defining the minimum requirements to be able to access this type of positions. These associations define three main elements that need to be covered [2]:

- Professional leadership
- Training
- Experience for each level of responsibility

With these pre-requisites, they frame the activity under the phrase "The administration cannot be legitimated by its power, but by its actions".

Spanish public health services are demanding the professionalization of its managers to achieve maximum levels of efficiency and effectivity for both, human and material resources that are available.

Work satisfaction has been studied and defined by numerous authors due to its direct relation as an element of productivity. The general definition of satisfaction and motivation given by Rogero [3] is:

"The satisfaction/in satisfaction at work is a positive or negative global attitude, originated by the evaluation of diverse psychologic, physiologic and ambient circumstances that result from obtaining expectations and the validation of its own identity (competences and values), while work motivation is the predisposition that starts it. The satisfaction directs and models the intensity and persistence of the persons conduct in the work context".

The definition introduces the element of motivation as a predisposition to increase or reduce the work satisfaction. It will increase the satisfaction in its presence with an appropriate modulation, but, its absence or wrongly used may serve as an element of reduction of the satisfaction or negative reinforcement.

The search for the motivation and satisfaction in the workplace has been historically developed in the working area [4] considering the individuality of the working conditions for each of the workers, not only as an isolated person, but as an element or member of the corporation in which he/she works.

When describing the elements of work satisfaction for nursing staff [5] it has been identified that the following elements generate a positive predisposition:

- I. They have working stability and pretend to continue in their post.
- II. They perceive support for their work.
- III. They have an active, cooperative and effective way to resolve problems.
- IV. There is an appropriate management of the stressing elements.
- V. They are healthy.

While the work satisfaction determinants of the medical doctors differentiate from those of the nursing staff, as these confirm that they are more satisfied, especially those with the following elements:

- I. They have the perception of family organization and support.
- II. There is coherence between expectations and achievements.

III. They have possibilities of career development and promotion.

Both groups consider of great importance the interpersonal relations within the clinical teams.

The stressing elements that the nursing staff have to face can be both intrinsic and extrinsic to the ward or the department. To face these elements, the professionals use coping mechanisms, being these a cognitive and compartmental responses that balance the relation between the perceived danger (or stressor) and the somatic and psychologic adaptation [5]. The reasons and motivations for which the nursing staff develop their activities are as many as nurses are around the world.

Nursing staff works framed in a multidisciplinary team, coordinating its activities with the rest of the team members such as the doctors, nursing assistants and the rest of the staff in charge of the treatments of the patients according to the organization of each service and under the coordination of a person in charge of the management of the team and works as a liaison between the service and the management levels.

These midlevel managers are described throughout the study as they are of extreme importance due to its facilitation role translating the needs of the service and the ward into the "language" of the high management level.

The aim of this study is to analyze the importance of these management levels in nursing and its relationship with the work satisfaction of the staff in their teams.

The hypothesis considered for the study were:

**Hypothesis 1:** The managers and nurses will present statistically significant differences concerning work satisfaction.

**Hypothesis 2:** Within the nursing and management nursing levels there are differences according to the socio-labor characteristics within the sample.

The general Objective of the study is the analysis of the factors that influence in the work satisfaction of the professionals in charge of the management in charge of nursing.

Whereas the specific Objectives were:

- a. Analysis of the factors that influence in the nursing management levels according to the staff that is in charge of the different levels of management.
- b. Analysis if the levels of nursing management influence over the work satisfaction of the assistance staff according to the assistance staff.

## Methods

To be able to achieve the required information, the study design was decided to be quantitative, descriptive and transversal.

The study aims to identify the work satisfaction of the nursing professionals working in management and describe how these influence over the work satisfaction of the assistance staff.

This is achieved through a quantitative study, working with the professionals currently active in the nursing field, both at the

assistance and management levels at the National Health System in Spain.

The evaluation procedure of the satisfaction of the workers will be the same for all the subjects, applying the same measurement instrument in similar or as close as possible conditions to avoid non controlled variables.

This study will have two main groups of work;

- I. Nursing professionals in management positions.
- II. Nursing professionals who are carrying out their professional activities as members of a healthcare team.

If only nurse managers were analyzed in the study, a bias [6] would be obtained by the choice of study subjects. It is for this reason that the group of nursing care is included as a group of professionals on which the leadership techniques of nursing managers will be visualized.

The variables analyzed in the study were:

1. Gender (man, woman)
2. Profession (manager, nurse)
3. Work time in the position (months)
4. Position held (manager, supervisor, director)
5. Type of hospital (public, private, public private, other)
6. Job satisfaction

In this way the study seeks to have the perspective of the managers, complementing this information with that of the members of the nursing team that work based on the guidelines and leadership that the management levels implement.

After the completion of each interview the following documentation is obtained:

- Signed informed consent document
- Covered quantitative questionnaire document

Studies developed by Bujalance Hoyos [7] obtained a sample size of 88 participants, by Simón García [8] with a sample size of 71, by Rios Risquez [9] with a sample size of 97, by Tomás Sabado [10] with a sample size of 146, by Anglada Miravent [11] with a sample size of 131 or by E. Muñoz [12] with a sample size of 112 participants. For the calculation of the sample size the results in these studies were taken into consideration.

The results do not describe studies of nursing care and management together, so it is decided that the two groups have to be present with the same weight, 50% each group.

For a 95% confidence interval, with an error level of 5% and a distribution of 50% responses, a significant sample of  $n=200$  is calculated, setting a safety margin of 10% (convention) establishing the  $n=202$ .

The sample was searched in the Community of Madrid, taking into account in a hospital in Madrid there are an average of 20 nurses in management positions, 5 hospitals are taken as objective (Vallecas Hospital, Arganda's Hospital, Ramón y Cajal Hospital,

Puerta de Hierro and San Carlos Clinical Hospital), obtaining a population of 100 managers. For the nursing care population, these centers are maintained in order to obtain the link between the managers and the care staff of the centers.

For the study, the participation rates of studies carried out in Spain were taken into account, such as Orts Cortés [13] whose response rate was 54.6%, or the Morales-Asencio study [14] with a response rate. of 56.02%, it was considered to increase the number of invitations to participate in the survey, planning the initial sending of 400 surveys.

During the development of the study it was possible to verify the low response rate, for which the invitations to participate in the study were increased to 450. This low response was especially significant in the group of managers (with 11%), so the invitation was opened to other centers in the Spanish geography and attended a conference of nursing directors to increase the size of the population.

Having made the 450 contacts between managers and healthcare personnel, a response rate of the questionnaires (complete and valid for the study) of 27.1% was obtained, with the final effective sample of 122 participants.

This final sample results in an error greater than the 5% expected (5.55%).

To develop the quantitative part, the Meliá and Peiró S4/82 job satisfaction questionnaire [15] was selected, this being a standardized and validated questionnaire for the analysis of job satisfaction. It is composed of 82 questions, where 6 different factors are analyzed, focusing in the Spanish workers and corporations. The S4/82 has 82 questions to be answered on the basis of a 1-7 Likert scale moving from "very satisfied" to "very unsatisfied", allowing it to measure a total of 6 different factors:

1. Factor I: analyze satisfaction with supervision and participation in the organization.
2. Factor II: analyzes satisfaction with the physical environment of work.
3. Factor III: analyzes satisfaction with material benefits and complementary rewards received by the company (except salary).
4. Factor IV: analyzes intrinsic satisfaction with work.
5. Factor V: analyzes satisfaction with remuneration, basic benefits and job security.
6. Factor VI: analyzes satisfaction with interpersonal relationships.

The sum of all the items together give an  $\alpha=0,95$ .

The S4/82 test also allows the analysis of the corporation as a global entity, or, if desired, it can be used to describe department by department, as it will be able to provide the same information both at macro (corporation) or micro (department) levels, depending on the interest of the study.

In the design of the quantitative study two elements were taken into account for the selection of the questions:

- The population to which the questionnaire is addressed is a group with a high workload, so it had to be simple and short (in time to answer the questions).
- The information provided by each of the available questionnaires so as to obtain the maximum amount of information.

The inclusion criteria were:

1. Managers

- To have the nursing studies finished.
- To be working in the Spanish National Health System
- To occupy a management position

2. Nursing professionals

- To have the nursing studies finished.
- To be working in the Spanish National Health System

The analysis was performed using the statistical program for Social Sciences IBM SPSS Statistics v.23.0, chosen as one of the most known and used in social research.

For the development of the study, an ethical approval was required and was granted by the ethical committee of the European University of Madrid with reference number CIPI/052/15 on the meeting held on the 23rd of October 2015.

## Results

The sample size sought for the managers at an initial phase was 100. Given the low participation, 250 invitations were sent, receiving 80 covered questionnaires (participation rate of 32%). These 80 questionnaires were not all duly completed, having to discard 10 (obtaining a rejected survey rate of 12.5%), the final total result being 70 participants with completed surveys, this being an effective participation of 28.8%.

The sample size sought at an initial time for nursing practitioners was 100. Given the low participation, 250 invitations were sent, receiving 65 completed questionnaires (participation rate of 26%). These 65 questionnaires were not all duly completed, having to discard 15 (obtaining a rejected survey rate of 23%), with the final total result of 50 participants who sent surveys duly completed, representing an effective participation rate of 20%.

A descriptive analysis was carried out which allows us to contextualize the data obtained by the sample. For this we extracted tables of frequencies in relation to the variables gender and profession. The sample is composed of a total of 120 subjects, of which 70 (58.3%) are managers and 50 (41.6%) are nurses.

Thus, among the subjects who are managers, 10% are men and

90% are women. The subjects who occupy positions of nursing are in 27.8% men and 69.4% women.

This is consistent with studies conducted such as Vázquez Bermúdez's (Santiago, 2010) where it confirms this greater presence of men in management positions in nursing. The sector of the sample comprised by subjects that are managers of profession, have worked for an average of 118, 85 months (DT = 87), being the minimum of 6 months and the maximum 360 months or 30 years.

Those in management positions have been working for 10 years or more and those in management positions have at least one year of experience. We find workers in supervisory positions in all the established temporary categories.

Considering the distribution of the sample comprised by managers according to the type of hospital in which they work, the majority come from public hospitals (72.2%).

The sector of the sample comprised of subjects who are nurses by profession, have worked for an average of 164.29 months (SD = 101.6), being the minimum of 24 months and the maximum of 480 months or, what is 40 years.

For the job satisfaction of the managers, an average of 5.4 was obtained (SD=0.83), which corresponds to "Something satisfied", while the average obtained for the job satisfaction of the nurses was 4.78 (DT=0.96) which responds to "Indifferent".

The results obtained from the differential analysis of the variables have been:

To determine the existence of differences between both groups, the T-Student test for independent samples was applied, through which a statistically significant difference ( $t=3.792$   $p < 0.01$ ) with a confidence level of 99% could be determined (**Table 1**).

We intended to investigate in depth the differences in job satisfaction between groups according to their sociodemographic characteristics including gender, working time, type of hospital, province, etc.

Regarding the difference between men and women in nursing professionals, women obtained an average of 4.85 (SD=0.94) and men a mean of 4.12 (SD=0.98), not being statistically significant ( $t=1,657$   $p > 0.05$ ).

Similarly, we did not find statistically significant differences between the management professionals according to gender ( $t=p > 0.05$ ), obtaining an average of 5.3 (SD=0.89) for women and an average of 5.54 (SD=0.58) men.

After a factor 1 ANOVA analysis, no differences were found between managers and the type of hospital where they work.

**Table 1** Differences in the work satisfaction of managers and nurses. T Student.

		Levene's test of equality of variance		t-test for equality of means			
		F	Sig.	T	gl	Sig. (Bilateral)	Mean Difference
Work Satisfaction	Equal variances are assumed	0.798	0.373	3.792	118	0.000	0.62318
	No equal variances are assumed			3.692	93.248	0.000	0.62318

**Table 2** Differences between managers and the management level occupied (ANOVA).

	Sum of squares	gl	Root mean	F	Sig.
Between groups	7.096	2	3.548	5.875	.004
Within groups	41.065	68	.604		
Total	48.161	70			

**Table 3** Multiple comparisons between the groups according to the post occupied with the work satisfaction as the dependent variable.

Given (I)	Given (J)	Mean difference (I-J)	Standard error	Sig	Confidence interval at 95%	
					Lower limit	Upper Limit
Manager	Direction	-0.40333	0.35328	0.524	-1.2875	0.4808
	Supervision	0.27576	0.34022	0.721	-0.5757	1.1272
Director	Manager	0.40333	0.35328	0.524	-0.4808	1.2875
	Supervision	0.67909*	0.19812	0.004	0.1833	1.1749
Supervision	Manager	-0.27576	0.34022	0.721	-1.1272	0.5757
	Director	-0.67909	0.19812	0.004	-1.1749	-0.1833

\*The difference in means is significant at the 0.05 level.

On the other hand, if we find differences between the managers in attention to the position that each of them performs (**Table 2**).

To find out which groups are different from each other, we conducted a post hoc analysis, using the Scheefe test, which makes multiple comparisons between the groups, taking into account job satisfaction as a dependent variable

The difference is found in the score found in the job satisfaction of the subjects with management positions and those who occupy supervisory positions, with the highest scores for the former ( $t = 6,7909$   $p < 0.01$ ) (**Table 3**).

## Discussion

The quantitative study was designed to have the first-person view of the managers as elements of influence in the variable of job satisfaction and to complete it with the vision of the nursing professionals who develop their activity in the teams of these managers.

The participation received has been lower than expected with 122 participants in total, representing a 28.22% response, not allowing a statistically significant population to be obtained.

When comparing this response rate with other studies conducted in Spain such as Orts Cortés [13] with a response rate of 54.6%, or the study by Morales-Asencio [16] with a response rate of 56.02 % shows how half of the response rate of similar studies has been obtained.

When trying to determine if the manager of your team influences job satisfaction, similar results have been obtained in terms of the need to improve communication, lack of empowerment of nursing personnel, lack of responsibility for their actions, difficulty in being able to access training courses or participation in research teams. These elements identified in the study coincide with the pillars of the functioning of magnetic hospitals [17].

The initiative described by Linda Aiken of magnetic hospitals in the USA serves as an example of the advantages of promoting and trusting nurses for management positions in the field of hospital care and management.

Diverse studies [18] demonstrate the direct relationship between the level of training of nursing personnel and the quality of care. The International Council of Nurses considers the training of nurses to be essential for the creation of learning organizations, thus achieving the continuous improvement of the care activity and for the continuous improvement of the professionals.

Care management is a way to improve the quality of care. On the other hand, Gea Caballero [19] does not consider it sufficient and proposes to add the total autonomy of the nursing professional, the control over the practice and the inter-professional collaborative roles.

According to Van den Heede [20] he postulates that in those centers where the manager is available and accessible generates an environment where the staff is more involved in the management and operation of the unit, obtaining the nursing staff more training and increasing job satisfaction of the personnel of that unit.

Shirey [21] includes the concept of incentivation through the training of personnel to improve their professional practice. In this case, Shirey proposes strengthening the figure of the transactional leader as proposed by Burns not through the use of financial means, but through the training and training of personnel. Thanks to the studies carried out by Alemán-Rivera and Pedro Gómez [22], interest has been generated in the line of research on the influence of managers on the quality of care as well as on evidence-based practice.

Authors such as Ferrer [23] defend the need for the reconsideration of the organization of the management model to increase the participation of professionals in it. The involvement of nursing in the care of patients and in decision making will allow a decentralization of decisions, the path towards self-management and an improvement in the use of available resources.

In this sense, Tullai [24] argues that one of the responsibilities of the nursing manager is to seek the participation of the staff of his unit in the decision-making process of the same, for which he must be able to generate a climate of trust that promotes the trust.

Morales Asencio [14] considers the support of managers and the quality of leadership as the most important factors in nursing teams. These results coincide with those obtained in the study with the two groups of both nursing and nursing care managers, where the figure of the leader and manager of the unit is recognized as important by all the participants in the study. Shirey [21] considers the manager leader as the necessary nexus for the working environment of the unit to be healthy.

This element of leadership is once again represented in the model of magnetic hospitals in 3 of its main description elements such as:

- Quality of the leadership of the managers.
- Structure of the organization.
- Management style.

## Conclusions

Considering the results obtained both from the available publications and from the available studies and those obtained in this study, the following conclusions have been identified:

1. Hypothesis number 1 is fulfilled.
2. Hypothesis number 2 states that "Within the nursing and management sectors themselves there will be differences according to the socio-labor characteristics of the sample". After the analysis of the intergroup differences, we have been able to determine the existence of differences between the managers

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