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Nurses' Motivation and Satisfaction at Work: An Exploratory Study at the Centro Hospitalar S. João

Fátima Gomes¹
Teresa Proença^{2,3}

¹ Hospital de São João

² FEP-UP, School of Economics and Management, University of Porto

³ CEF.UP, Research Center in Economics and Finance, University of Porto



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Fátima Gomes

Hospital de S. João

fatimagomes2@live.com.pt

Teresa Proença

CEF.UP, Faculdade de Economia, Universidade do Porto

tproenca@fep.up.pt

Abstract

This study aims to assess nurses' motivation and satisfaction and measure the impact of socio-demographical and socio-professional variables, namely professional contract.

A questionnaire was delivered to a sample consisting of 560 nursing professionals of the second major Hospital in Portugal, *Hospital São João* (HSJ): 277 nurses on public contract, 173 on open ended contract and 110 on fixed term contract.

Results show that the relationship with the patients is the most important factor for nurses' satisfaction, followed by satisfaction with the job content. Remuneration is the factor in which nurses show the least satisfaction.

Nurses with a fixed contract, the most insecure of all, are the ones with greater motivation and satisfaction, contrary to what is expected according to content motivational theories. However, they also have greater expectation that their performance can improve their contract, what may explain the previous results.

This paper also suggests that work and the type of contract has an impact on personal life and vice-versa, namely on the intent of leaving the job, on the marital status and the number of children.

Keywords: motivation, satisfaction, nursing, professional contract

JEL Codes: J28

1. Introduction

The current economic environment in Portugal has aggravated the crisis that is felt in every sector, including employment. The uncertainties in health organizations accentuate and lead to political, social, judicial and economic changes that seek to respond to and soften the crisis situation. Among the many changes, work and contractual relationships have changed the most, with a rapid and extensive transformation that is causing profound impact and apprehension among health professionals as workers and as citizens.

Many professionals have been made redundant, for others the professional contract has been altered, and those who have more recent qualifications are not given employment opportunities or financial compensation, among other difficulties. In light of the effects of the economic and social crisis it is timely to review professional worker's motivation, specifically whether nurses are unmotivated, and if so, what factors de-motivated them – or to the contrary, motivated them to maintain their best work performance in health organizations to which they are bonded. Nursing professionals have been compromised with different kinds of contracts and, therefore, in spite of having similar duties and jobs, are subject to different rules with all the implications this can bring.

The employment contracts that coexist in EPEs (*Entidades Públicas Empresariais* – Public Corporations) have three types of contracts: the Open Ended Contract (OEC), the Fixed Term Contract (FTC) and the older public contract CTFP, (*Contrato de Trabalho em Funções Públicas*):

- OEC: is agreed upon for situations where the time duration which the worker will be needed cannot be determined at first. In this contract the Organization can only end the contract in special cases and established conditions in the labor law, thus tending to be durable.
- FTC is agreed upon for a determined period, renewable for one-year periods for a maximum of three years, since it aims to meet the temporary needs of the organization, under article 140º, n.º 2, paragraph a), of the labor law approved by the n.º7/2009 Law, 12th February. This contract has greater job insecurity for nurses compared to the former, since at the end of the period the contract cannot be renewed and they will become unemployed.
- CTFP - is the older public contract and it is the most secure and most favorable to employees concerning health benefits, hour load and vacations days.

In Table 1 a comparison of the different labor conditions for the three types of contracts is presented. In general, the CTFP has more advantages for employees.

According to the Working Hours and Attendance Regulation of the *Centro Hospitalar S. João* – WHAR, the number of vacation days is higher in the CTFP. The hour load is another difference, with 35 weekly hours of work for the CTFP and 40 weekly hours of work for the FTC and OEC. This difference is balanced by the Attendance Award which the latter two employ in their monthly wage.

The CTFP also allows ADSE health benefits (Directorate-General of Social Protection for the Public Services Officials) that are extendible to family members. This is not extendible to the OEC.

Since ADSE does not extend to OEC, the social fulfillment of the right to social security is put into effect by the Social Security System, approved by Law n.º 4/2007, of 16th January, which defines the general framework in which it is settled and its objectives, namely the fulfillment of this right and the promotion of social protection.

Security and stability at work, more vacation days and the benefits of ADSE are the three big advantages of the CTFP.

Table 1 – *Types of contracts and their characteristics*

Kinds of Contracts			
Conditions	CTFP	OEC	FTC
Hour load	35 hours/week	40 hours/week	40 hours/week
Vacation days	25 days + 1 for each 10 working years + 1 for each 10 working years past 39 years-old.	22 days + 3 days (in conformity with absences throughout that year).	22 days + 3 days (in conformity with absences throughout that year).
Social Protection	ADSE	Social Security System	Social Security System
Attendance Award	Non applied	Present	Present
Absence Regime or Justified Absence from work EX:	Without loss of privileges	Attendance Award loss in conformity with the WHAR.	Attendance Award loss in conformity with the WHAR.
Employment Bond	Definitive	Definitive and soluble in specific cases in conformity with the labor law	Renewable for one-year periods and three years maximum.
Career Development	In conformity with the diploma which regulates the special nursing career.	Need for Collective Agreement	Need for Collective Agreement

Based on various need theories, nurses who have their security needs satisfied should feel more motivated than those with unstable contractual bonds, in spite of wage and benefit reductions that have occurred in all groups

The purpose of this paper is to contribute to a better understanding of the factors which motivate nurses and to promote guidance about the management of this professional group. A sample of nursing professionals at the second major Hospital in Portugal, *Hospital São João* (HSJ), was queried.

2. Motivation and Satisfaction at Work

There are numerous definitions of motivation, emphasizing either the energetic character of motivation behavior at the beginning of the pursuit of a goal (content or need theories) or the cognitive character, which supports the underlying decision mechanisms along the course and intensity of motivated behavior (process theories) (Carneiro, 2009).

Content theories identify human needs and explain motivational factors, identifying behaviors which satisfy the needs. They are characterized by the importance attributed to various needs and to the methods used in their satisfaction. According to these theories, a satisfied employee is a productive employee, i.e., the person attains the expected performance and productivity if he/she feels that his needs are satisfied.

Abraham Maslow (1954), unquestionably the most prominent author of need theory, established his ideas on the assumption of an upward hierarchical need satisfaction. He holds that the higher level needs can only be reached after all the preceding needs are satisfied. Nevertheless, Maslow (1954) acknowledges that exceptions may arise when needs of a superior nature are at stake, and can be met before the immediately preceding level is satisfied. Initially his theory had seven distinct levels, but after some modifications five categories were formed under the following ascending order: physiological needs which refer to homeostasis maintenance and are indispensable to survival; security needs which include the desire of protecting oneself as well as one's family from danger; social needs which refer to the desire to belong to a group and of being accepted by others; esteem needs which are the individual's desire for distinguishing himself in the group where he participates and more specifically of obtaining prestige and power; self-fulfillment needs which include the desire for

psychological growth, continuous improvement of personal capacities and excellence, bestowing a permanent challenge for the individual's life (Ramos, 1990).

Besides Maslow, Herzberg (1959) also made a valuable contribution without opposing Maslow's ideas, but looking at the Satisfaction side of work instead. Steuer (1989) refers to motivation as manifesting the created tension for a need and that satisfaction expresses the feeling of attending to that need. Satisfaction at work is considered to be a pleasant emotional state resulting from the individuals' assessment of their work, which results from the persons' perspective on the satisfaction of their most important values at work (Locke, 1969, 1976). Satisfaction and dissatisfaction at work are considered by some authors as the two extremes of the same phenomenon, which is noticeable in studies whose scales measure this construct by using both concepts in opposing extremes in Lickert's scales (Begley & Czajka, 1993; O'Driscoll & Beehr, 2000). However, other authors, such as Herzberg (1959) with his dual-factor or motivational-hygiene theory, make a distinction between satisfaction and dissatisfaction, considering them as two distinct phenomena.

For Herzberg (1959) not every need motivates, since some only avoid dissatisfaction. For this author, motivation is divided in two categories: hygiene factors – considered as extrinsic and preventive of dissatisfaction, and are related with the work context in the way a person feels about the company, working conditions, wages, benefits, status and interpersonal relationships; motivational factors – intrinsic factors related to the person's feeling concerning the job position, personal fulfillment, performance acknowledgement and responsibilities associated with the job, which are in themselves gratifying.

Process theories focus on the cognitive processes underlying the conscious mechanisms of decision making. According to these theories, satisfaction is a result of performance and productivity attained, whereas according to need theories, satisfaction allows performance.

Among process theories, the theory of cognitive dissonance (Festinger, 1954) and its derivatives; Equity theory (Adams, 1963) and Expectancy theory (Vroom, 1964), are the ones that stand out.

The Theory of Cognitive Dissonance, formulated by Festinger (1954), comes from the assumption that human beings, by means of an individual process of self-evaluation, form their own self-image and use it as a comparative measure concerning other people or the characteristics that they consider similar to their own. Inconsistencies between an

individual's self-evaluation and the exterior results in cognitive dissonance – a mechanism that generates stress. This is the vehicle that drives a person to develop overcoming behaviors and to achieve a state of consonance or psychological balance.

The Equity Theory (Adams, 1963) holds that in the workplace persons are constantly comparing their contributions (performance, responsibilities) and their compensations (wage, acknowledgement) with their work peers. Thus, a perception equity or inequity emerges. If the worker perceives inequity, either due to insufficient or excessive compensation, he/she tends to behave in a way so as to balance that correlation by increasing or decreasing his/her performance levels in a quest for equity. There are studies which demonstrate increases of performance in workers with excessive compensation (Adams & Rosembaum, 1962) and performance decrease in workers with compensations deficit (Goodman & Friedman, 1969).

Vroom's Expectancy Theory (1964) argues that motivation stems from the individual's estimates about achieving a goal, to which he /she assigns a given value. The effort will depend on the interaction of three cognitive factors: valence (the value which a person attributes to a certain goal or reward), instrumentality (the possibility that performance may be used to achieve a reward) and expectancy (the person's expectation of achieving the goals and the proposed performance). These three factors together determine the motivational level of a person, represented by VIE (Valence x Instrumentality x Expectancy). According to the author, motivation is a multiplied product, which implies that when one of them is zero, the final outcome will also be a void motivation. The motivational process results, therefore, from the interrelationship between the three aforementioned factors. If a person expects to be capable of accomplishing a certain task (Expectancy) and that the accomplishment can lead him/her to reach a fulfilled goal or reward (Instrumentality) to which value is attributed (Valence), it can be stated that the person is properly motivated.

Another important relationship to take into account in work satisfaction is workers' health. Some studies point to a positive association between satisfaction at work and health quality (Henne & Locke, 1985; Peterson & Dunnagan, 1998). This means that work satisfaction is associated with good health quality and dissatisfaction at work is associated with health problems like fatigue, digestive problems and muscle pains, among others. Henne and Locke (1985) corroborate these results, mentioning that satisfaction is an emotional state and that emotions imply involuntary physical responses where the

satisfaction level (emotional state) can act as a stress agent, causing some the above-mentioned symptoms.

3. Nurses' Motivation and Satisfaction

In what concerns nurses' motivation and satisfaction, many authors show results which partly confirm Herzberg's predictions (Fonseca, 1999; Steffen, 2008; Al-Enezi, 2009). Rewards lead to an increase of behavior repetition, and so when the worker is rewarded he/she continues to produce better, while punishment does not have a permanent effect and leads to negative attitudes.

In accordance to Glina and Rocha (2000), the worker needs two fundamental requirements in his daily practice: to be healthy and have satisfaction at work. Health and satisfaction at work for healthcare practitioners are interconnected with professional status, interaction, remuneration, working conditions and organizational rule indicators (Steffen, 2008).

One of the current factors regarding motivation in the nursing profession is connected with remuneration. Batista, Vieira, Cardoso and Carvalho (2005) have concluded that even though remuneration is a motivational factor at work it is not the main motivator. Other factors have been mentioned by nurses, such as stability attained at work and commitment to the population. Curiously, when these authors evaluated dissatisfaction, remuneration was indicated as one of the factors of greatest dissatisfaction in nurses' work. Nurses considered themselves to be poorly paid, taking into consideration the kind of work that is done, the hour load and responsibility assumed. Tavares (2010) concluded that, even though remuneration is a motivational factor at work in general, it isn't for nurses. The author indicated other motivational factors such as: liking what one does, an acceptable relationship with the multi-professional team, the possibility of professional growth, the hour load and the working conditions given by the organization. Yet, where remuneration is concerned, Vévoda, Ivanová, Nakládalová and Marečková (2011) concluded from a study at 122 hospitals in the Czech Republic that nurses considered wages and the care given to the patients as the most important factors at work.

Many other studies have emphasized various motivational and satisfaction factors in the nursing profession. Ferreira (1996) published a study conducted at Coimbra Pediatric

Hospital with a sample of 109 nurses, showing that the nurses' satisfaction was connected to relationship variables with other hospital professionals and their relationship with patients, while dissatisfaction was linked to remuneration, structural conditions, incentives and career development perspectives. Fonseca (1999), who conducted a study with the goal of understanding the degree of professional satisfaction of nurse managers of the northern central area hospitals, concluded that the conditions that most influenced nurses' satisfaction were security, autonomy and self-fulfillment. Andrade (2001) conducted a study in six hospitals of northern Portugal with a sample of 209 nurses in Pediatric service, and concluded that the nurses were moderately satisfied overall. He mentioned that older nurses and those with a higher professional category reported the greatest satisfaction. The determinant factors for satisfaction in decreasing order of importance were; organizational communication, working hours, the physical conditions in the workplace, autonomy and remuneration. Seixas (2009), in his study with a sample of 42 nurses, concluded that the interpersonal relationships are the cause of greatest satisfaction for the nurses.

Ferreira (2011) in a study with 388 nurses from the Primary Healthcare in Braga District, concluded that the professionals with the highest satisfaction are those who work in shifts with a fixed-term contract, with management functions, with five years of service or less and who are thirty-five years old or less.

For Staufenbiel, Kroll, & König (2006) a worker's motivation is strongly affected by insecurity at work. However, these authors also say that insecurity can work as a motivation factor if the professional sees insecurity as a challenge – he/she may fight for the renewal or improvement of his/her employment contract and so have a better performance. They mention that this insecurity has consequences at social and demographic levels for a country, since it leads to the postponement of marriage, creating a family, and parenthood. The insecurity can also be responsible for the intent of resignation (Greenhaus *et al.*, 1997). Uncertainties in career development have shown to be important factors, not only for the intent to leave but also for decreased motivation (Greenhaus *et al.*, 1997).

Melo (2001) and Carneiro (2009) indicated the head nurse as the most responsible for the motivation of a group toward fulfilling the organization goals.

Continuing with nurses' motivation and satisfaction, Yaktin (2003) conducted a study of 421 nurses in Lebanon, to better understand the relationships between personal characteristics and nurses' satisfaction. The outcomes revealed that personal

characteristics have an effect on the way the nurses understand work. The nurses with higher educational levels indicated a greater dissatisfaction with the quality and the manner of treatment by supervisors. Nurses less than thirty years-old and with good professional skills were more dissatisfied with opportunities for professional growth. The study also reveals that when comparing singles with married people, the singles are the most dissatisfied. As for Al-Enezi (2009), he concludes in his study about satisfaction at work among nurses in Kuwait that female nurses were dissatisfied with professional opportunities and intrinsic rewards. However, they were satisfied with what concerns acknowledgement, control and responsibility, although the level of satisfaction was not very high. A lower level of satisfaction was found among the nurses with higher qualification levels.

Fontes (2009) finds that nurses with shorter lengths of service and the youngest in general, are those who present lower levels of satisfaction.

4. Research Objectives

Taking into consideration the economic and social crisis in Portugal, the different types of contracts in the nursing profession and the previous mixed results concerning nurses' motivation and satisfaction, it is necessary to understand what best satisfies these professionals. In addition, we intend to clarify at what point insecurity at work is perceived and what impact it has on motivation and on the nurses' performance at work. Therefore, the specific goals of the research questions are as follows, with the following points established for specific purposes:

1. What are the most important factors for motivation/satisfaction of nurses?
2. Does the type of contract and other socio-professional factors have a role in nurses' motivation/satisfaction?
3. Do socio-demographical factors have an impact in nurses' motivation/satisfaction?

5. Methodology

The methodology is based on a survey of nurses at the *Centro Hospitalar S. João – Entidade Pública Empresarial* (HSJ EPE), one of the main national hospitals in Portugal.

5.1 Measures

The questionnaire is divided in three parts and is mostly constituted by closed-ended questions. The first part of the questionnaire is dedicated to the socio-demographic and professional characterization of the participants, with questions about age, gender, and marital status, number of children, academic qualification time of experience gained in nursing, the place of vocational training or the training institution. The second part revolves around the motivation of the nurses. For the construction of the items, greater emphasis was given to V. Vroom's Expectancy Theory for the part of the motivation questionnaire (MQ). The third part has a group of questions intended to evaluate, in global terms, the satisfaction degree with a set of factors (SQ), based upon Herzberg's Motivation/Hygiene theory, and another similar group of questions intended to gather data concerning the comparison of nurses with other contractual bonds (CSQ), to assess the perception of justice based on Adam's Equity theory.

A *Lickert* scale was used with five alternative answers, in which “1” corresponded to the lowest level of motivation or satisfaction and “5” to the highest level. In the MQ, the scale was “completely disagree”, “partially disagree”, “don't have an opinion”, “partially agree” and “completely agree”. In the case SQ and CSQ, the levels were: “very dissatisfied”, “dissatisfied”, “indifferent”, “satisfied” and “very satisfied”.

In accordance with Hill and Hill (2005), Lakatos and Marconi (1996) and Quivy and Campenhoudt's (1988), a pre-test was conducted before applying the questionnaire to the target population. The first pre-test was carried out by ten nurses, from which we took observations that helped to eliminate errors and to determine the average completion time. Some of questions were reformulated in order to allow a better interpretation and to decrease the completion time. Twenty-six nurses then tested the questionnaire which they answered without difficulty, hence the questionnaire was considered operational for application.

5.2 Sample

In order to determine the size of the sample, the three types of distinct bonds in the HSJ EPE population of nurses were taken into consideration: CTFP with 1062 nurses, OEC with 932 nurses and FTC with 110 nurses, in a total of 2104 nurses. 600 questionnaires were distributed and the effective answer rate was 77.8%, registering 467 questionnaires. To these were added 37 questionnaires which were filled online, obtaining a total of 504. After gathering the enquiries 277 nurses were registered with CTFP, 173 nurses with OEC and 43 nurses with FTC, for a total of 504 nurses (24% of the population). Average age was 36.20 (dp= 8.64) with a range of variation between 22 and 58 years-old.

Table 2 shows the representativeness of each subsample gathered from the population. The most representative sample was the one from the FTC (43%), followed by the CTFP (26.8%) and the OEC (18.56%). Every sample exceeded the goal proposed by Scheaffer, Mendehall and Lyman (1996) which indicates 10% as the minimum possible sampling value to carry out the inference.

Table 2 – Population and sample according to the employment contract

Kind of contract	Population	Sample
CTFP	1062	277 (26.08%)
OEC	932	173 (18.56%)
FTC	110	43 (43%)

6. Results

In the first phase, a descriptive analysis was presented from a brief set of outcomes related to socio-demographic characteristics of the nurses. Afterwards, exploratory factor analysis and reliability analysis were conducted, and finally, the established variables were used to conduct statistical inference.

Table 3 presents the main characteristics of the sample: 55.8% of the nurses are married or live in non-marital cohabitation and 51.2% of the nurses have at least one child, while 46.8% do not have children. In educational qualifications, the bachelor's degree was the least represented. In respect to professional status, the Nurses stand out (50.6%), followed by Graduated Nurse (37.7%), Specialist Nurse (7.7%) and finally Chief Nurse (3.4%). Most people work in shifts (72.4%). The weekly hour load is 35h for 56.5% of the nurses and 46.9% for the remaining. The data indicates that 81.2% of the nurses work in the service they like to be in. Table 3 also shows that the average time in a given professional

group is 9.12 years (DP=5.96), the average length on the service is 12.79 years (DP=8.59) and the average length of service in HSJ-EPE is A= 11.60 years (DP= 8.46).

Table 3: *Socio-demographic characterization of the sample*

<u>Qualitative Variables</u>	N	%
Marital Status		
Married/Non-marital Cohabitation	281	55.8
Single	191	37.9
Divorced/Separated	31	6.2
Widow	1	0.2
Children		
Yes	258	51.2
No	236	46.8
Academic Qualifications		
Bachelor's Degree or legal equivalent	460	91.3
Master's Degree	25	5.0
Four-year degree course or legal equivalent	15	3.0
NR	4	0.8
Occupational Category		
Nurse	255	50.6
Graduated Nurse	190	37.7
Specialist Nurse	39	7.7
Chief Nurse	17	3.4
NR	3	0.6
Type of work schedule		
Rotational	365	72.4
Permanent	138	27.4
NR	1	0.2
Weekly hour load		
35 Hours	285	56.5
40 Hours	216	42.9
NR	3	.6
Working in the service they like		
Yes	409	81.2
No	66	13.1
NR	29	5.8
<u>Quantitative Variables</u>		
	<i>M</i>	<i>DP</i>
Time in the occupational category	9.12	5.96
Length of service	12.79	8.59
Length of service in HSJ-EPE	11.60	8.46

Next, we present the outcomes related to the psychometric analysis of the questionnaires used to measure the motivation and satisfaction of the nurses.

The methodology used to calculate validity and reliability measures was principal component analysis (PCA) (Cortina, 1979; Carmines, 1993) and internal consistency (Nunnally, 1978), respectively.

In PCA, the procedure is connected to the extraction of principal components with orthogonal rotation *varimax*¹ which considers a number of factors in terms of self-values² (*eigenvalues*) superior to 1 (Rodrigues, 2008).

Another relevant criterion for factorial solutions is that factors should explain a percentage of at least 50% of the total variance of measured variables (Streiner, 1994). The measure of Kaiser-Meyer-Olkin (KMO) was calculated, which allows knowing the proportion of the data variance that can be considered common to every variable, this is, which can be attributed to a common factor. The Bartlett's test of sphericity (BTS) assumption that tests if the correlation matrix is not an identity matrix (no correlation between variables) was also verified (Snedecor & Cochran, 1989). In every analysis, these assumptions have been fulfilled.

6.1 Exploratory Factor Analysis from the Questionnaire related to motivation (MQ)

The MQ was initially composed of 34 items and obtained a Cronbach's alpha of 0.74. The first attempt at factor analysis found 10 factors with 59.1% of explained variance.

Since one of the factors was clearly identified as being related to the intent of leaving the organization, this dimension was individualized. The questionnaire items are presented in Table 4 with the corresponding saturations.

As can be verified in Table 4, all of the items present saturations above 0.45, with 100% of explained variance and 0.89 of internal (measured by Cronbach's alpha).

Tablet 4: *Matrix of Saturations for the intent of leaving the job*

Item	Saturation	η	α
IA1. I often think of resigning my current profession/career.	0.66		
IA2. I'm actively searching for an alternative to leave this organization/institution.	0.80	100%	0.89
IA3. I intend to resign as soon as possible from my current profession/career.	0.81		

¹ The orthogonal rotation method minimizes the number of variables that each construct will have, a method which simplifies data interpretation and optimizes the solution.

² Self-values correspond to the quantity of variance explained by a component, a self-value is equal to 1. 0 represents the total of variance percentage explained by a single variable. The sum of self-values corresponds to the number of analyzed variables.

IA4. If I could go back I wouldn't have picked this profession.	0.64
IA5. I often think of leaving this organization/institution.	0.85
IA6. If a job offer came up with a definitive bond/more stability, in another region or country I would change my employer/institution.	0.49
IA7. I am actively searching for an employment alternative with a more stable bond.	0.64
IA8. I intend to leave this organization/institution as soon as possible.	0.78
IA9. I'm actively searching for an employment alternative to my current profession/career.	0.80

η = % Explained variance; α = Cronbach's alpha

Another factorial analysis with the remaining motivation items was conducted, and those that did not saturate in any of the factors were removed (saturation levels inferior to 0.45). Consecutive factorial analysis was conducted, aiming to optimize a small number of factors and a high percentage of explained variance. The final factorial solution is shown in Table 5.

Table 5: *Matrix of Saturations for the MQ*

Item	Saturation	Factor	η	α
The best performance contributes to a better employment contract (more security and stability)	0.72	Expectation-Performance Bond	15.15%	0.62
If my performance is good it is certain that my contractual situation will improve.	0.67			
If I work very hard it is certain that my employment contract is secure.	0.66			
I am actively looking to get an employment contract more stable/definitive in this institution	0.63			
Security/stability at work is an important factor for my professional performance	0.76	Value-Bond Performance	11.22%	0.62
Instability at work harms the professional performance of the nurses	0.75			
The employment bond is an important factor for my professional performance	0.69			
In a general way, my job provides me stability and security	0.73	Acknowledgement and Security	8.91%	0.50
If I work hard for better performance I will be the reference element for the whole team	0.59			
I feel capable of achieving my personal goals.	0.57			
My commitment is diminished by the insecurity at my work.	-0.53			
Nurses prefer an Employment Contract with a more flexible bond, yet well remunerated.	0.82	F4	8.34%	0.31
The nurses prefer to be well remunerated no matter what kind of Bond.	0.69			
If I work very hard it is certain that my performance will be good.	0.59	F5	6.34%	0.15
The positive reinforcement of my performance contributes to my greater motivation at work.	0.55			
Nurses prefer an Employment Contract in Public Services with stability, no matter what the remuneration.	-0.52			

η = % Explained variance; α = Cronbach's alpha

The final factorial solution found five factors with a total of 50% of the explained variance. The internal consistency values of the first three factors come near Nunnally's proposal (1978). However, the values of the last two factors are well beneath the referred proposal, imposing caution for making conclusions based on these factors since the internal consistency levels did not allow confirmation of the relationship between the items which correspond to each of these factors, they have been considered independently, without integrating any composite variable.

The **first Factor** was called the "Expectation Performance - Bond", since the variables which constitute it are related with the expectation or hope that a good performance will allow a safer bond to the organization. The **second Factor** was called the "Value Bond - Performance" since these items are related to the nurses' opinion in respect to the impact that the bond has on performance, this is, how the employment contract influences motivation for work and, consequently, having good or bad performance. The **third Factor** was called "Acknowledgement and Security", since these items are related to the recognition that the nurses have in the team, as well as in the fulfillment of their personal objectives and the security which they project at work.

6.2 Exploratory Factor Analysis of the Questionnaire of Satisfaction (SQ)

The SQ was initially composed of 29 items and obtained an internal consistency value of 0.91, measured by Cronbach's alpha value. In this case the first attempt at factor analysis found seven factors with 61% of explained variance. Next, items that did not saturate in any of the found factors (considering saturation levels inferior to 0.45) were removed. Finally, factor analysis was conducted to optimize the least number of factors to the greatest explained variance percentage (cf. Table 6).

Table 6: *Matrix of Saturation for the SQ*

		Factor	η	α
My superior's preoccupation with my welfare.	0.91	Supervision	28.88%	0.90
My superior's acknowledgement.	0.89			
Participation opportunities given by my superior.	0.85			
Relationship with my superiors.	0.73			
The importance of my job.	0.73	Job content	10.02%	0.77
The nature of the tasks I carry out.	0.68			
Possibility to do work I like.	0.68			
To afford good services to the population.	0.67			
The patient's confidence in my performance.	0.54	Social Acknowledgement and Development	8.34%	0.73
Professional acknowledgement.	0.66			
Social Prestige/status which this profession gives me.	0.62			

The success that I achieved in my career.	0.56			
Possibility of career development.	0.55			
The contract I have.	0.72			
Numbers of vacation days.	0.72	Working Conditions	6.09%	0.72
Hour load.	0.69			
The job's stability and security	0.60			
Wage increases.	0.77			
Payment of extraordinary work.	0.69	Remuneration	4.12%	0.61
Monthly Remuneration.	0.67			
The relationship with the patient's/user's family.	0.83	Relationship with Patients	3.86%	0.84
The relationship with the patient/user.	0.82			
η = % Explained variance; α = Cronbach's alpha				

The final solution found six factors with a total of 61.31% of explained variance. The internal consistency values of all the factors are in conformity with Nunnally's proposal (1978) with the exception of the fifth factor, with α = 0.61. The factors were designated in accordance to the concept being analyzed in the respective items.

6.3 Exploratory Factor Analysis of the Comparative Questionnaire of Satisfaction (CSQ)

The CSQ was initially composed of 29 items and obtained an internal consistency value of 0.91, measured by Cronbach's alpha value. The first attempt of factor analysis found five factors with 60% of explained variance. Next, was the removal of items that did not saturate any of the found factors (considering the saturation levels inferior to 0, 45) and the consecutive factor analysis with the aim to optimize the relation of minor number of factors to the greatest percentage of explained variance (cf. Table 7).

Table 7: *Matrix of Saturation for the CSQ*

			η	α
My superior's preoccupation with my welfare.	0.92			
My superior's acknowledgement.	0.91			
Participation opportunity given by my superior.	0.89	Compared supervision	30.99%	0.90
Relationship with my superiors.	0.75			
Formative opportunities.	0.59			
Skill development opportunities.	0.59			
The relationship with the patient/user.	0.88			
To afford good services to the population.	0.83			
The relationship with the patients/users' family.	0.83	Compared job content	12.45%	0.84
The nature of the tasks I carry out.	0.82			
The patient's confidence in my performance.	0.66			
Possibility to do work I like.	0.59			
The importance of my job.	0.57			
The contract that I have.	0.83			
Job stability and security	0.76			
Hour load.	0.74	Compared working conditions	9.30%	0.77
Numbers of vacation days.	0.69			
Future perspectives in relation to employment.	0.47			

Wage increases.	0.83			
Possibility of career development.	0.66			
Payment of extraordinary work.	0.66	Compared Remuneration	6.44%	0.69
Monthly Remuneration.	0.61			
Social Prestige/status which this profession gives me.	0.72			
The success that I achieved in my career.	0.69	Compared Social Acknowledgement and Development	4.34%	0.71
Professional acknowledgement.	0.62			

η = % explained variance; α = Cronbach's alpha

The final factor solution found five factors with a total of 63.50% of explained variance. The internal consistency values of all the factors are in conformity with Nunnally's recommendations (1978). The names attributed to these factors are similar to the previous satisfaction scale, adding the "Compared" designation. The "Relationship with the patients" factor found in the QST does not appear individualized in this scale, but is included in job content, which is also reasonable

6.4 Descriptive Analysis of the Scales

The descriptive analysis of the results on the scales had in mind the Average and Standard Deviation calculus (cf. Table 8).

Table 8: *Descriptive Statistics for the dimensions of the scales being studied*

Dimension	n	M	DP
Intent of resignation	477	2.02	0.90
Motivation			
Expectation Performance-Bond	486	2.81	0.77
Value Bond –Performance	498	3.77	0.94
Acknowledgement and Security	503	3.29	0.56
Satisfaction			
Satisfaction with the relationship with the patients	497	4.21	0.66
Satisfaction with the nature of the job	493	3.97	0.60
Satisfaction with the supervision	486	3.51	0.85
Satisfaction with the working conditions	495	3.26	0.82
Satisfaction with the social acknowledgement and development	495	2.65	0.80
Satisfaction with the remuneration	493	1.79	0.71
Compared Satisfaction			
Compared satisfaction with the nature of the job	475	3.90	0.60
Compared satisfaction with the supervision	478	3.37	0.76
Compared satisfaction with the working conditions	482	2.97	0.87
Compared satisfaction with the social acknowledgement and development	483	2.95	0.90
Compared satisfaction with the remuneration	476	1.99	0.74

The highest value in the Motivation Scale was found in the "Value Bond-Performance" dimension and the lowest was in the "Expectation Performance-Bond" dimension. This result shows that nurses consider a stable and secure situation at work to be important to

performance, and that they have low expectations regarding the idea that good performance will lead to a better contractual situation (increased security). As for the Satisfaction scale, the highest value was found in the “Satisfaction with the relationship with the patients” dimension, followed by the satisfaction with “job content” and the lowest was in “Satisfaction with the remuneration.” Nurses also did not show high satisfaction with social acknowledgement and development. In the Compared Satisfaction scale, the highest average value was achieved in the “Compared Satisfaction with the job content,” which was already one of the highest in the Satisfaction scale. The lowest value was found in the “Compared Satisfaction with the remuneration.” Here, as in the Satisfaction scale, the nurses do not give emphasis to remuneration as a Satisfaction factor. It is also important to mention that all the average values of the compared satisfaction dimensions are lower than the absolute satisfaction values, which reveals a perception of inequity among nurses. The dimension of ‘Intent of resignation’ was low.

6.5 Motivation, satisfaction and employment contract

First in Table 9, every obtained result in every dimension is compared for each type of contract.

Table 9: ANOVA for the comparison of motivation and satisfaction dimensions in each type of employment contract

Scale	Dimensions	Contract	M	DP	F
Intent of resignation	Intent of resignation	CTFP ^b	1.92	0.89	3.70**
		OEC ^a	2.16	0.90	
		FTC	2.04	0.91	
Motivation	Expectation Performance -Bond	CTFP ^c	2.75	0.82	9.91***
		OEC ^c	2.79	0.65	
		FTC ^{a, b}	3.30	0.69	
	Value Bond -Performance	CTFP	3.74	0.96	0.54
		OEC	3.83	0.87	
		FTC	3.83	1.00	
	Acknowledgement and Security	CTFP	3.32	0.56	1.73
		OEC	3.26	0.53	
		FTC	3.18	0.61	
Satisfaction	Satisfaction with the nature of the job	CTFP ^b	4.03	0.55	7.73***
		OEC ^{a, c}	3.83	0.65	
		FTC ^b	4.11	0.68	
	Satisfaction with the remuneration	CTFP ^c	1.71	0.69	25.73***
		OEC ^c	1.73	0.61	
		FTC ^{a, b}	2.50	0.83	
	Satisfaction with the working conditions	CTFP ^{b, c}	3.67	0.61	118.43***
		OEC ^a	2.74	0.76	
		FTC ^a	2.70	0.66	
	Satisfaction with the supervision	CTFP ^b	3.59	0.84	3.37**
		OEC ^a	3.38	0.87	
		FTC	3.49	0.80	
	Satisfaction with the relationship with the patients	CTFP ^b	4.26	0.62	3.77**
		OEC ^a	4.10	0.68	
		FTC	4.33	0.78	

Compared Satisfaction	Satisfaction with social acknowledgement and development	CTFP ^b	2.78	0.80	14.20***
		OEC ^{a, c}	2.40	0.71	
		FTC ^b	2.89	0.89	
	Compared satisfaction with the supervision	CTFP ^{b, c}	3.55	0.70	15.65***
		OEC ^a	3.15	0.79	
		FTC ^a	3.24	0.69	
	Compared satisfaction with the nature of the job	CTFP ^b	3.97	0.55	10.46***
		OEC ^{a, c}	3.74	0.66	
		FTC ^b	4.10	0.48	
	Compared satisfaction with the working conditions	CTFP ^{b, c}	3.44	0.69	136.19***
		OEC ^a	2.34	0.74	
		FTC ^a	2.40	0.74	
	Compared satisfaction with the remuneration	CTFP ^{b, c}	2.01	0.77	11.85***
		OEC ^{a, c}	1.84	0.61	
		FTC ^{b, c}	2.44	0.77	
	Compared satisfaction with social acknowledgement and development	CTFP ^b	3.13	0.85	16.13***
		OEC ^{a, c}	2.68	0.84	
		FTC ^b	3.21	0.81	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Tukey's multiple comparison test ($p < 0.05$) ^aDifferent for the CTFP;

^bDifferent for the OEC; ^cDifferent for the FTC;

Table 9 shows that the intent of leaving the job is reduced for every contract type, but mainly for nurses with CTFP. As for the Motivation variables, it was found that the nurses with FTC are those who present greater expectation that better performance will facilitate an improvement in the employment contract. This outcome leads us to conclude that these nurses maintain the expectation of improving the bond through performance. As for the Satisfaction, in four of the six dimensions the nurses with FTC are the most satisfied. The nurses with CTFP only present higher satisfaction in respect to supervision and working conditions. The nurses with OEC show the greatest dissatisfaction in four of the six dimensions. As for the Compared Satisfaction, the highest values of satisfaction were divided between the nurses with FTC (being higher in three dimensions) and CTFP (higher in the remaining two).

Next, Pearson's correlations were calculated between the dimensions of the scales and the length of service in general, in the institution and the length of time in the professional category (cf. Table 10).

Table 10: *Correlations between the motivation and satisfaction dimensions and the lengths of service and category*

Scale	Dimensions	Length of time in the professional category	Total Length of service	Length of service in this institution
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Intent of Resignation	Intent of Resignation	-0.07	-0.10*	-0.11*
Motivation	Expectation Performance -Bond	-0.07	-0.07	-0.08
	Value Bond -Performance	-0.03	-0.03	-0.03
	Acknowledgement and Security	-0.05	-0.12*	-0.08
Satisfaction	Satisfaction with nature of the job	-0.01	0.12**	0.10*
	Satisfaction with the remuneration	-0.14**	-0.07	-0.01
	Satisfaction with the working conditions	.25**	0.46**	0.46**
	Satisfaction with the supervision	0.07	0.12**	0.06
	Satisfaction with the relationship with the users	-0.02	0.14**	0.12**
	Satisfaction with the social acknowledgement and development	0.08	0.24**	0.21**
	Compared satisfaction with the supervision	0.13**	0.24**	0.20**
Compared Satisfaction	Compared satisfaction with the nature of the job	0.03	0.15**	0.13**
	Compared satisfaction with the working conditions	0.30**	0.50**	0.50**
	Compared satisfaction with the remuneration	-0.04	0.07	0.08
	Compared satisfaction with the social acknowledgement	0.08	0.21**	0.19**

*p <0.05;**p <0.01;***p <0.001

The most important correlations were found in the dimensions of Satisfaction with the working conditions and the Compared Satisfaction with the working conditions, both with moderate positive correlations in the length of service being analyzed. This is, as the length of service increases, so does satisfaction, mainly satisfaction with the working conditions. Negative correlations stand out. The nurses least satisfied with their remuneration are those who have longer service in a category; those with shorter lengths of service believe that the value of the bond is important for performance.

The results of each of the dimensions have also been compared taking **gender** into consideration (cf. Table 11).

Table 11: *T-Test for the comparison of the motivation and satisfaction dimensions in terms of gender.*

Dimensions	Gender	n	M	DP	T-Test
Intent of Resignation	Masculine	103	2.30	1.03	3.60***
	Feminine	372	1.94	0.85	
Motivation					
Expectation Performance –Bond	Masculine	104	2.69	0.75	-1.82
	Feminine	379	2.84	0.77	
Value Bond –Performance	Masculine	105	3.86	0.93	1.10
	Feminine	390	3.75	0.94	

Acknowledgement and Security	Masculine	105	3.72	0.51	1.69
	Feminine	395	3.27	0.57	
Satisfaction					
Satisfaction with the nature of the job	Masculine	104	3.91	0.70	-1.32
	Feminine	386	3.99	0.57	
Satisfaction with the remuneration	Masculine	103	1.83	0.73	0.76
	Feminine	387	1.77	0.70	
Satisfaction with the working conditions	Masculine	103	3.17	0.82	-1.15
	Feminine	389	3.28	0.82	
Satisfaction with the supervision	Masculine	104	3.36	0.86	-2.03*
	Feminine	380	3.55	0.84	
Satisfaction with the relationship with the users	Masculine	104	4.17	0.77	-0.93
	Feminine	390	4.23	0.61	
Satisfaction with the social acknowledgement and development	Masculine	103	2.56	0.83	-1.35
	Feminine	389	2.68	0.79	
Compared Satisfaction					
Compared Satisfaction with the supervision	Masculine	102	3.25	0.75	1.99*
	Feminine	374	3.41	0.76	
Compared Satisfaction with the nature of the job	Masculine	101	3.81	0.68	-1.80
	Feminine	373	3.93	0.57	
Compared satisfaction with the working conditions	Masculine	104	2.87	0.89	-1.02
	Feminine	377	2.97	0.90	
Compared satisfaction with the remuneration	Masculine	101	1.98	0.74	-0.17
	Feminine	373	1.99	0.74	
Compared satisfaction with social acknowledgement and development	Masculine	104	3.00	0.87	0.30
	Feminine	376	2.97	0.87	

***p<0.001; *p<0.05; Normality assumptions and homogeneity of fulfilled variables

Men show greater “intent of leaving the job” compared to women, and the opposite is seen in “satisfaction with the supervision” and “compared satisfaction with the supervision”, which have higher results among women.

The dimensions of the scales were also compared considering the variable of **having/not having** children (Table 12).

Chart 12: *T-Test for the comparison of motivation and satisfaction in terms of presence/absence of children.*

Dimensions	Children	N	M	DP	T-Test
Intent of Resignation	No	222	2.12	0.95	2.23*
	Yes	245	1.94	0.86	
Motivation					
Expectation Performance -Bond	No	228	2.89	0.70	2.35*
	Yes	249	2.72	0.82	
Value Bond -Performance	No	231	3.82	0.89	0.86
	Yes	257	3.75	0.97	
Acknowledgement and Security	No	235	3.29	0.54	-0.17

	Yes	258	3.30	0.57	
Satisfaction					
Satisfaction with the job content	No	229	3.89	0.66	-2.64**
	Yes	254	4.04	0.54	
Satisfaction with the remuneration	No	230	1.87	0.72	2.57**
	Yes	253	1.71	0.67	
Satisfaction with the working conditions	No	231	2.98	0.82	-7.31***
	Yes	254	3.50	0.74	
Satisfaction with the supervision	No	227	3.42	0.87	-2.21*
	Yes	249	3.59	0.83	
Satisfaction with the relationship with the users	No	233	4.18	0.64	-1.33
	Yes	255	4.25	0.66	
Satisfaction with the social acknowledgement and development	No	230	2.53	0.78	-3.13**
	Yes	255	2.75	0.80	
Compared Satisfaction					
Compared Satisfaction with the supervision	No	228	3.25	0.76	-3.27***
	Yes	241	3.48	0.75	
Compared satisfaction with nature of the job	No	227	3.84	0.63	-2.32*
	Yes	239	3.97	0.56	
Compared satisfaction with working conditions	No	230	2.62	0.86	-8.27***
	Yes	243	3.26	0.82	
Compared satisfaction with the remuneration	No	226	1.99	0.73	-0.04
	Yes	241	1.99	0.76	
Compared satisfaction with social acknowledgement and development	No	229	2.85	0.86	-3.04**
	Yes	243	3.09	0.86	

***p<0.001; *p<0.05; Normality assumptions and homogeneity of fulfilled variables

According to Table 12, the “intent of leaving the job” is higher in nurses without children, who also have higher expectations that good performance will facilitate improvement of the Bond. Regarding satisfaction and compared satisfaction, in the great majority the nurses with children are those who feel more satisfied – with the exception of satisfaction with the remuneration.

The results of the questionnaires have also been compared in what concerns **marital status**. Since the “divorced” (n=31) and “widow” (n=1) were smaller in number compared to other groups – the “Married/Non-marital Cohabitation” (n=281) and “Single” (n=191) – only the last two groups have been compared (Table 13).

Table 13: *T-Test for the comparison of motivation and satisfaction in terms of married and single marital status.*

Dimensions	Marital Status	n	M	DP	T-Test
Intent of Resignation	Single	181	2.12	0.95	1.98*
	Married/Non-marital Cohabitation	265	1.95	0.85	
Motivation					
Expectation Performance –Bond	Single	185	2.92	0.73	2.83**

	Married/Non-marital Cohabitation	270	2.72	0.77	
	Single	187	3.87	0.89	
Value Bond –Performance	Married/Non-marital Cohabitation	279	3.68	0.97	2.23*
	Single	190	3.30	0.56	
Acknowledgement and Security	Married/Non-marital Cohabitation	281	3.26	0.55	0.85
Satisfaction					
	Single	185	3.91	0.64	
Satisfaction with the job content	Married/Non-marital Cohabitation	276	3.99	0.58	-1.37
	Single	186	1.87	0.70	
Satisfaction with the remuneration	Married/Non-marital Cohabitation	276	1.73	0.69	2.12*
	Single	188	2.97	0.75	
Satisfaction with the working conditions	Married/Non-marital Cohabitation	275	3.42	0.79	-6.17***
	Single	185	3.48	0.78	
Satisfaction with the supervision	Married/Non-marital Cohabitation	271	3.53	0.87	-0.66
	Single	189	4.16	0.67	
Satisfaction with the relationship with users	Married/Non-marital Cohabitation	277	4.23	0.66	-1.09
	Single	186	2.59	0.76	
Satisfaction with the social acknowledgement and development	Married/Non-marital Cohabitation	277	2.66	0.81	-1.02
Compared Satisfaction					
	Single	187	3.27	0.70	
Compared satisfaction with the supervision	Married/Non-marital Cohabitation	261	3.44	0.76	-2.33*
	Single	183	3.86	0.61	
Compared satisfaction with the nature of the job	Married/Non-marital Cohabitation	261	3.91	0.58	-0.86
	Single	188	2.65	0.81	
Compared satisfaction with the working conditions	Married/Non-marital Cohabitation	264	3.12	0.89	-5.63***
	Single	184	2.05	0.71	
Compared satisfaction with the remuneration	Married/Non-marital Cohabitation	261	1.95	0.74	1.46
	Single	186	2.92	0.82	
Compared satisfaction with social acknowledgement and development	Married/Non-marital Cohabitation	265	2.97	0.89	-0.65

***p<0.001; **p<0.01; *p<0.05; Normality assumptions and homogeneity of fulfilled variables; the other marital status were excluded from this sample because they had less participants.

As seen in Table 13, single nurses show higher intent of leaving the job, expectation performance-bond, value bond-performance and satisfaction with remuneration. In satisfaction with the working conditions, compared satisfaction with the working conditions and compared satisfaction with the supervision, married nurses had higher values.

Following the previous analysis, a cross-check was conducted between the variables **Marital Status and type of contract** (Table 14).

Table 14: *Chi-squared Test for the cross-checking the Marital Status and Type of contract (% in line)*

Marital Status/Bond	CTFP	OEC	FTC	χ^2
Single	53 (28.5%)	99 (53.2%)	34 (18.3%)	93.99***
Married/Non-marital Cohabitation	200 (72.7%)	67 (24.4%)	8 (2.9%)	

***p<0.001

Table 14 shows that there is a relationship between Marital Status and Contract (p<0.001), since there are more married people with a CTFP bond than with OEC. Within the group of people with a CTFP bond, 72.7% are married in contrast to 24.4% within the group of OEC.

A cross-check between the **children and type of contract** variables was also made. As seen in Table 15, an association was found between **children** and **type of contract** (p<0.001). More people with children have a CTFP than in OEC and FTC contracts. 82.6% of the nurses with children have a CTFP bond, 15.2% have an OEC bond and 2.2% have FTC (Table 15).

Table 15: *Chi-squared Test for the cross-checking of the Children and Type of contract variables (% in line)*

Children/Bond	CTFP	OEC	FTC	χ^2
Without Children	61 (26.9%)	131 (57.7%)	35 (15.4%)	142.02***
With Children	185 (82.6%)	34 (15.2%)	5 (2.2%)	

***p<0.001

It is clear that the great majority of nurses with children have a CTFP bond (82.6%), whereas the majority of the nurses without children have OEC (57.7%).

Considering the previous results, it is possible that these differences are related to age. In fact, older people have a greater propensity to have a CTFP bond and also the opportunity to get married and have children. Therefore the sample was reduced in order to include only nurses up to 35 years-old. Different cross-checks were again done using **Marital Status and Contract** variables (Table 16) and **Children and Contract** (Table 17). It was found that the percentage of married nurses is higher within the CTFP bond (67.7%) than in relation to the OEC (40%) and FTC (43.2%). Also it was found that the biggest percentage of nurses with children have a CTFP (53.2%) bond. This is, even with a sample up to 35 years-old, family formation (getting married and having children) occurs more among nurses that have a more stable contract, the CTFP.

Table 16: *Chi-squared Test for the cross-checking of the Marital Status and Bond variables for nurses up to 35 years-old (% in column)*

Marital Status/Bond	CTFP	OEC	FTC	χ^2
Single	21 (32.3%)	96 (60%)	34 (56.8%)	31.27***
Married/Non-marital cohabitation	44 (67.7%)	64 (40%)	7 (43.2%)	

***p<0.001

Table 17: *Chi-squared test for the cross-checking of the Children and Contract variables for married nurses up to 35 years-old*

Children/Bond	CTFP	OEC	FTC	χ^2
Without children	9 (18.4%)	37 (75.5%)	3 (6.1%)	14.31***
With children	33(53.2%)	26 (41.9%)	3 (4.8%)	

***p<0.001

7. Discussion

7.1 Motivation and Satisfaction Factors for the Nurses

The first goal of this research was to find the satisfaction factors of the nurses. The most prominent satisfaction factors are the **relationship with patients** followed by **job content**.

The results are in tune with Herzberg (1959), who mentions that factors intrinsic to the job, such as the ones related to job position and content, the person's feelings concerning the position, personal fulfillment, acknowledgement of performance and responsibilities associated with the position are by themselves gratifying, and therefore motivation factors. Also, Cura (1994), Locke (1976), Pérez-Ramos (1980), Zalewska (1999), Batista, Vieira, Cardoso and Carvalho (2005), Ferreira (1996) and Seixas (2009), believe that the interpersonal relationships of the worker, namely their relationships with patients, allow increased satisfaction or motivation at work and, consequently, better results and performance.

Job content is intimately connected to the importance that the nurses give to their job, to the possibility of doing work they like, to afford good services to the population and also to the confidence that their patients have in their performance. The autonomy, the decision-making possibilities, professional challenge, responsibility and the commitment to the population are some of the variables which give more satisfaction for the nurses – data that is in accord with Seixas (2009).

In this study, remuneration is the aspect which gives the least satisfaction to nurses. Batista, Vieira, Cardoso and Carvalho (2005) mention that wages are not the main motivation factor for nurses' at work, although it is one the factors of dissatisfaction which is most often pointed out. According to Herzberg (1959) not all needs motivate, since some only avoid dissatisfaction. Wages are, according to this author, an intrinsic factor and, therefore, preventive of dissatisfaction.

The **Satisfaction with the supervision** is also an important component in nurses' satisfaction. These data coincide with other studies such as Melo (2001), Carvalho (2006), Carneiro (2009) and Tavares (2010). When professionals feel professionally acknowledged, they are more satisfied and, the organizational environment also inherently becomes richer and more productive (Ureníková, Pospíšilová & Straková, 2011).

7.2 Motivation and Satisfaction concerning Socio-Professional Factors

As for the **type of contract**, it was found that the intent of leaving the job among the workers in OEC is significantly greater than those in CTFP, which could be as a result of the insecurity and instability provided to OEC nurses. The workers under the OEC regime are not attributed with a definitive bond, which conveys a feeling of insecurity and, thereby eagerness to search for another organization or even another profession which is

able to confer the desired professional security and family stability (Borda & Norman, 1997). Curiously, it was found that although the nurses with FTC have the most insecure bond, they do not present the highest value of intent to leave.

Regarding the expectation that good performance will facilitate a better contract, the nurses in FTC have the highest expectations. This group of nurses believes that a greater effort will lead to better performance and, consequently, the attainment of a more stable bond as a result of the acknowledgement of their effort at work. The results are in conformity with Vroom's Expectancy theory (1964), which emphasizes that the individual's behavior is adjusted to personal goals.

Nurses in FTC also have the highest **Satisfaction with the job content** and **Compared satisfaction with the job content**. Since this kind of contract is the most fragile, their satisfaction can be explained by the contentment from having work they like doing, even though the work they carry out is similar to the work of the other professionals with different bonds.

Concerning the **satisfaction with the working conditions and compared satisfaction with the working conditions**, the results of the workers in CTFP are the highest, which is understandable given the type of contract that they have. The nurses in CTFP have the most secure contract, which can offer them stability and job security, and gives them future perspectives for their professional career and a greater number of vacation days. The nurses in other kinds of contracts, besides having more instability and insecurity, work 5 more hours per week and have the lowest number of vacation days.

The nurses in CTFP also get the highest results in **Satisfaction with the supervision and Compared satisfaction with the supervision**. This can be attributed to the greater number of years in the profession and in the organization which conveys them more familiarity, namely with the leadership. Fontes (2009) believes that the more experienced nurses are, the more opportunities they have to achieve their expectations as well as more competence to overcome possible complications at work. They also use to have the advantage of better salaries or first choice on vacation periods.

In the dimensions of **Satisfaction with the remuneration** and **Compared satisfaction with the remuneration**, even though they were all dissatisfied, the results show that there is less dissatisfaction with remuneration among the nurses in FTC. The explanation could be in the fact that the nurses in FTC can work and earn five more hours pay per week, unlike in CTFP. These five hours are compensated in accordance to the rules of the attribution of the Attendance Award, and represent 20% of monthly remuneration. Nurses

in CTFP are more satisfied with their remuneration than the nurses in OEC, which may be explained by the smaller hour load and the better career level in which they are situated. CTFP nurses work five hours per week less, and according to their career level their remuneration can be equal or superior to the nurses in OEC, which have an Attendance Award and a bigger hour load.

Finally, in the dimension of **Satisfaction with the social acknowledgement and development** and **Compared satisfaction with the social acknowledgement and development**, the results of the workers in FTC are significantly higher than the ones in OEC and are also more satisfied than the CTFP. Since the group of nurses in FTC has a more insecure job contract, it is presumable that they work harder, with more energy in order to achieve success, prestige and professional acknowledgement, aiming to create a bond to provide them with more security and stability.

The analysis of motivation and satisfaction according to the **length of service and category** shows significant positive correlations in the dimensions of **Satisfaction with the working conditions** and **Compared satisfaction with the working conditions**. This data leads us to conclude that the longer the working time in the same service is, the higher nurses' satisfaction with working conditions is, and the same can be said concerning seniority in the professional category. The higher the seniority the older the nurses are, which allows us to conclude that they probably hold a CTFP and so will be more satisfied, mainly with the security and stability which it provides them.

7.3 Motivation and Satisfaction concerning Socio-Demographic Factors

In what concerns the comparison of motivation/satisfaction among nurses, various differences were found when taking socio-demographic factors into account.

Regarding **gender**, the results show significant differences in the dimensions of **Intent to leave the job**, **Satisfaction with the supervision** and **Compared satisfaction with the supervision**. Men have higher intent of leaving their job, revealing that they are more available to risk a possible exit from the organization and to try to find a better employment contract, remuneration and social benefits. Besides, the socio-cultural standards in our society “demand” more positive working situations for men, hence they feel more pressure to seek them. Where **Satisfaction with the supervision** and the **Compared satisfaction with the supervision** are concerned, the female nurses are those who are more satisfied.

In what concerns the “children” variable, it was found that young nurses and those without children have more intent and willingness to risk **leaving the institution**. This result is understandable given that nurses with children have greater financial support responsibility, and because of that they focus on work and on the contract without putting into jeopardy what they have. It is also seen that the **expectation of gaining a better professional contract** by means of better performance is higher in nurses without children, since they are younger and also holders of an employment bond of greater instability/insecurity. They try hard to obtain a better employment contract or to maintain the ones that they have, adjusting behavior to personal goals (Vroom, 1964). According to Staufenbiel *et al.* (2006) this insecurity seems to be a motivating factor for higher performance, only because it is believed that it will lead to increased benefits with respect to security in the future. In **Satisfaction with the remuneration**, these results allow us to conclude that nurses with children have less satisfaction with remuneration than those without children. On one hand the justification for this difference in satisfaction could be the low monthly remuneration that the nurses earn and this is felt more intensely by those with children. On the other hand, the workload difference in different contracts leads to a better remuneration on the part of workers under OEC or FTC contracts. As for the **working conditions**, the satisfaction is greater for individuals who have children in absolute terms as well as in comparative terms. The working conditions are the determinant factor for the worker’s well-being. These results are comparable to the ones found by other researchers such as: Andrade (2001), who concentrates on the working hours, physical conditions and autonomy; Batista, Vieira, Cardoso and Carvalho (2005) who emphasize the good relationship in the team, stability and opportunity for professional development; Ferreira (2011) who highlights the kind of work, bond, length of service and age. In what concerns the **satisfaction with social acknowledgement and development** it was found that there is greater satisfaction with social acknowledgement and development among nurses with children. Nurses who have children are older, and because of that are those who possess a more stable employment contract which allows them to have career development, unlike their colleagues. Fonseca (1994 e 1999), Melo (2001), Martins (2003), Alves (2009), Batista, Vieira, Cardoso and Carvalho (2005), find in their studies that when this factor is present it is an indicator of motivation and satisfaction on the part of professionals.

Concerning the **Compared satisfaction with supervision**, the results allow us to conclude that there is greater compared satisfaction with supervision among nurses with

children. Taking into consideration that these are older nurses and, therefore, are married with children, they are also those who have a more stable employment contract (it was previously found that, the nurses in CTFP present greater motivation and satisfaction than the nurses in OEC), therefore the justification for this divergence could be evidenced by the items “*Training opportunities*” and “*Opportunity of skills development*”.

The results of the dimensions of the questionnaires concerning **Marital status** have also been compared. In the **Intent of leaving** dimension, the results are higher for single nurses, which are compatible to the kind of employment bond that these nurses have. The younger and mostly single nurses are those who have an individual employment contract (FTC or OEC) and, as is understandable, they feel more insecure and dissatisfied, having to search for another organization or profession which affords them a more favorable employment bond. Studies report that insecurity at work weakens motivation Herzberg *et al.* (1959) and Staufienbiel, *et al.* (2006). Concerning the **Expectation Performance – Bond**, the results are also higher among single nurses, corroborating the results found previously in the motivation differences in terms of contract. As for the **Value Bond–Performance**, single nurses give the most value to the employment bond in order to obtain a good performance. They value and recognize that the kind of bonds which they possess is an important factor for their performance. In **Satisfaction with the remuneration** the single nurses once more show greater satisfaction in remuneration even though they have less security and stability at work. This can be explained by the Attendance Award which their bond grants them, due to their weekly hour load of 40 hours and in that way they get an equal or greater remuneration to their colleagues in CTFP. The results of **Satisfaction with the working conditions, Compared satisfaction with the working conditions** and **Compared satisfaction with the supervision** were the highest among married nurses, since they are the ones with a more stable bond – CTFP.

As a way of avoiding possible confounding effects related to age, only participants up to 35 years-old were selected for the act of establishing the **relationship between children and bond**. In this selection it was found that the percentage of married nurses is more prevalent within the CTFP than in relation to OEC and FTC. The older nurses with a CTFP bond have more stability and security in employment, therefore this result is no surprise when comparing them to colleagues in OEC and FTC.

Finally, with respect to the relation between **marital status and bond**, it was found that the percentage of married nurses is more prevalent within the CTFP circle than in relation

to the OEC and FTC. Given these results, we can conclude once more that the kind of employment bond is fundamental, given the greater or lesser security and stability provided by it. Hence, we verify that the nurses up to 35 years-old and with CTFP are those who invest the most in building a family life.

With respect to cross-checking the **Children** and **Contract** variables with the above-mentioned restrictions, the bigger percentage within the “with children” condition was situated in the nurses in CTFP, even though together they are inferior. Given these results we can conclude that the nurses in OEC, even though they are married and therefore have more probability of having children, do not have any. The workers on contract are of a younger age and in principle they still don’t have children or if they intend to have them they keep postponing it given their employment instability and insecurity.

8. Conclusion

This research intended to explore the factors that give more motivation and satisfaction among nurses, taking into consideration socio-professional and socio-demographic variables.

The relationship with the patients was the most valued factor, followed by satisfaction with the job content. Remuneration was the factor in which nurses showed the least satisfaction, followed by social acknowledgement and development. One of the main conclusions is that nurses feel more satisfied in matters related to social and human factors than with remuneration.

The type of employment contract is an important variable in what concerns nurses’ motivation. Nurses with FTC have a greater expectation that their performance can improve their contract. This could explain why they find more satisfaction in certain dimensions (such as satisfaction with the relationship with patients, satisfaction with the remuneration, satisfaction with the job content and satisfaction with the social acknowledgement and development).

Regarding the intent of leaving the current workplace, men show more willingness to change, as well as nurses without children and nurses with an OEC contract. This paper also suggests that work has an impact on personal life and vice-versa. Single nurses showed higher propensity to resign from current employment, because of less security and stability at work (due to the kind of the contract that they have). Also, the fact of

having / not having children is related to the type of contract, considering that nurses in insecure bonds have fewer children.

Considering the critical moment of unpredictable uncertainties at a social, political, judicial and economic level, the present study emerges at a time in which employers resort more and more to employee contract flexibility as a way of responding to the demand for professionals and to the difficulties of being able to assure a stable contract.

Concerning the *Centro Hospitalar de São João* that has welcomed this study, the results might provide indicators for reflection about the degree of professional satisfaction of nurses.

Motivation as a component of an organizational environment is a fundamental factor for the success of an organization, from which the managers cannot be detached. Knowing the factors that influence the motivation of professionals is complex, but motivating them isn't easy either, since every individual is unique. To successfully motivate people is without a doubt one of the most challenging of tasks, but it is the thing which gives the most satisfaction to those who can, mainly in times of crisis.

We believe that with this research we have contributed to a better comprehension of the factors which motivate nurses and provide them greater satisfaction at work. We hope that the results might provide important indicators in relation to the degree of professional satisfaction among nurses.

As suggestions for future research, we propose an exploration of the same issues among other health professionals and in other organizations. This could be a launching point for future studies involving nurses from over all the national territory.

As for the limitations, the lack of balance found in the gathering of the sample can be pointed out. If on the one hand there are as many nurses in CTFP as in OEC, the gathering did not reflect that data. Also, the fact that the applied questionnaire is not a previously assessed tool could constitute a point of being less robust, since the inferences are based upon it. Nevertheless, the factor analysis and the results of internal consistency indicate good reliability and can be used in further research.

9. References

- Adams, J. S. & Rosenbaum, W. B. (1962). "The relationship of worker productivity to cognitive dissonance about wage inequities". *Journal of Applied Psychology*, 46(3), 161-4.
- Adams, J. S. (1963) "Toward an understanding of inequity". *Journal of Abnormal Social Psychology*, 67(5), 422-436.
- Al-Enezi, N., Chowdhury, R.I., Shah, M.A. & Al-Otabi, M. (2009). "Job satisfaction of nurses with multicultural backgrounds: a questionnaire survey in Kuwait". *Applied Nursing Research*, 22(2), 94-100.
- Andrade, L. (2001). "A Satisfação Profissional nos Enfermeiros de Pediatria". Master Dissertation. Departamento de Pediatria da Faculdade de Medicina, Universidade do Porto.
- Batista, A., Vieira, M., Cardoso, N., Carvalho, G. (2005). "Fatores de motivação e insatisfação no trabalho do enfermeiro". *Revista da Escola de Enfermagem da USP*, 39(1), 85-91.
- Begley, T. M. & Czajka, J. M. (1993). "Panel analysis of the moderating effects of commitment on job satisfaction, intent to quit, and health following organizational change". *Journal of Applied Psychology*, 78 (4), 552-556.
- Carmines, E.G. & Zeller, R.A. (1979). *Reliability and validity assessment*. Sage Publications.
- Carneiro, M. (2009). *Motivação dos Enfermeiros: Relação com o Comportamento do Equipa*. Master Dissertation., Vila Real: UTAF.
- Cortina, J.M. (1993). "What is coefficient alpha? An examination of theory and applications". *Journal of Applied Psychology*, 78, 98-104.
- Ferreira, P. (2001). Satisfação profissional dos enfermeiros do Centro Regional de Oncologia de Coimbra. *Revista Investigação em Enfermagem*, 4, 20-28.
- Ferreira, P. L. (1996). "Satisfação dos profissionais de enfermagem". *Revista de Saúde Infantil*, 18, 31-40.
- Festinger, L. A. (1954). "Theory of social comparison processes". *Human Relations*, 7(2), 117-40.
- Fontes, A.I.C. (2009). "Satisfação profissional dos enfermeiros...que realidade? Serviço de cuidados intensivos versus serviço de medicina". Universidade do Porto: Instituto de Ciências Biomédicas Abel Salazar.
- Glina, D. M. R, Rocha, L. E. (2000). *Saúde Mental no Trabalho: Desafios e Soluções*. São Paulo: Editora V. K .

- Goodman, P. S. & Friedman, A. (1969). "An examination of quantity and quality of performance under conditions of overpayment in piece-rate". *Organizational Behavior and Human Performance*, 4, 365-74.
- Henne, D. & Locke, E. A. (1985). "Job dissatisfaction: what are the consequences?" *International Journal of Psychology*, 20, 221-240.
- Herzberg, F., Mausner, B. & Snyderman, B. (1959). *The motivation to work*. New York: John Wiley
- Hill, M. & Hill, A. (2005). *Investigação por questionário*. Lisboa: Edições Sílabo.
- Vévoda, J., Ivanová, K., Nakládlová, M., & Marečková, J. (2011). "Motivation and Job Satisfaction of general Nurses working in out patient hospital departments from the Perspective of Herzberg's Two-Factor Motivation Theory". In Conference Proceedings IV. International Conference of General Nurses and Workers Educating Paramedical Staff, 8th February, 154-163.
- Lakatos, E. M. & Marconi, M. A. (1996). *Fundamentos de Metodologia científica* (3ªed.) São Paulo: Editora Atlas S.A.
- Martinez, M., Paraguay, A. & Latorre, M. (2004). "Relação entre satisfação com aspetos psicossociais e saúde dos trabalhadores". *Revista de Saúde Pública*, 38 (1), 55-61.
- Maslow, A. H. (1954). *Motivation and personality*. New York, Harper & Row.
- McClelland, D. C. (1961). *The achieving society*. Princenton, NJ: Van Nostrand.
- Melo, C. (2001). "A liderança em enfermagem. Estudo do líder, do liderado e da motivação". *Master Dissertation*. Instituto de Ciências Biomédicas Abel Salazar, Porto.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- O'Driscoll, M. P. & Beehr, T. A. (2000). "Moderating effects of perceived control and need for clarity on the relationship between role stressors and employee affective reactions". *Journal of Science Psychology*, 140 (2), 151-159.
- Peterson, M. & Dunnagan, T. (1998). "Analysis of a worksite health promotion program's impact on job satisfaction". *Journal of Occupational and Environmental Medicine*, 40, 973-979.
- Quivy, R. & Campenhoudt, L. V. (1988). *Manual de investigação em Ciências Sociais* (2ª ed.) Lisboa: Gradiva-Publicações.
- Rodrigues, C. M. S. (2008). *A Inovação em Rede e o Desempenho Empresarial: Ensaio de um Modelo de Equações Estruturais para a Indústria Portuguesa*. PhD Dissertation. Universidade do Minho, Escola de Engenharia.

- Scheaffer, R., Mendenhall, W. & Lyman, R. (1996). *Elementary Survey Sampling*. London: Cengage Learning.
- Seixas (2009). “Satisfação Profissional do Enfermeiro do Serviço de Urgência”. Porto Universidade Fernando Pessoa.
- Snedecor, G. W. & Cochran, W. G. (1989). *Statistical Methods* (8th Edition). Iowa State: University Press.
- Staufenbiel, T.; Kroll, M. & König, C. (2006). “Could Job Insecurity (also) Be a Motivator?” In Braun, M. & Mohler, P. (eds) *Beyond the Horizon of Measurement*. 163-175.
- Steffen, A. (2008). “Fatores de motivação no trabalho da equipe de enfermagem em um pronto atendimento do vale dos sinos”. Novo Hamburgo: Centro Universitário Feevale.
- Steuer, R. S. (1989). “Satisfação no trabalho, conflito e ambiguidade de papéis: estudo junto às enfermeiras da Maternidade Escola do Município de São Paulo”. *Dissertação de Mestrado, Faculdade de Saúde Pública*. Universidade de São Paulo, São Paulo.
- Tavares, M. (2010). “Motivação e Desempenho dos Funcionários da Administração Pública Cabo-Verdiana Actual”. Lisboa: Universidade Aberta.
- Vroom, V. H. (1964). *Work and motivation*. New York, John Wiley.
- Yaktin, U.S., Azoury, N. B. & Doumit, M. A. (2003). “Personal characteristics and job satisfaction among nurses in Lebanon”. *Journal of Nursing Administration*, 33 (7/8), 384-390.

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