

# A cross selectional survey in a critical care: the job satisfaction and functioning team of the health professionals

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**Abstract.** *Background and aim of the work:* Health care workers, especially those who are part of the OS core, are essential in the delivery of services, as they represent the institution at the time of the contact with the user and they represent also the image of the organization. Health administrations, therefore, are called to improve the performance through a better motivation and satisfaction of the staff, in view of two strategic aspects: job satisfaction of professionals and team collaboration. *Method:* Between January and September 2014, a survey at the OU (UOOO) intensive care and sub intensive has been made inside three hospitals in Emilia Romagna. It's been a multicentre cross-sectional quantitative study by administering a self-report questionnaire designed to investigate the different constructs. On 742 questionnaires were spread 454 professionals gave it back (response rate = 73%). Of those, 273 (60.1%) were nurses, 119 (26.2%) were physicians and 62 (13.7%) were healthcare operators. 62 (13.7%) Job Satisfaction was measured with the McCloskey Mueller Satisfaction Scale. Team Functioning was measured with the Index of Interprofessional Team Collaboration. *Results:* Results from MANOVA indicated that physicians were less satisfied of scheduling than both nurses and healthcare operators. For professional opportunities, instead, healthcare operators showed the lower level of satisfaction. The participants seem to perceive a high level of team effectiveness and therefore the professionals involved in the care of critically ill patients than the two dimensions analysed, (reflection between the processes and interdependent roles), also state a greater tendency to respect the roles interdisciplinary, maintaining their professional autonomy and a lower tendency to use critical thinking to act professionally in order to improve the effectiveness of care provided. *Conclusion:* The study results oriented healthcare administrators, to take paths that feed the job satisfaction and the collaboration of professionals by developing the aspects investigated. Considering the shared perception among the professions studied, compared to the constructs under investigation, it seems to be clear how the routes should be designed in a systematic order to involve, in an integrated way the best professionals (nurses, doctors and OSS) involved in taking managing critical patients. No statistically significant difference have been found between these three professions considered, on most dimensions of job satisfaction investigated (relations between colleagues, 'social interactions, work-family balance, time work organization and working professional opportunity). There is a difference between two specific factors: the work time planning organization and which is seen less by the nurses, while the job opportunities that are perceived less from the OOS.

**Key words:** job satisfaction, team functioning, health professional, intensive care unit

## Introduction

Health care workers, especially those who are part of the OS core, are essential in the delivery of services, as they represent the institution at the time of the contact with the user and they represent also the image of the organization.. The staff, added to a health care organization, you configure it as an integrated system of strategic apex and the operating core, for a common project of identification of needs, both quantity and quality of human resources, with the use of tools and recruitment consistent selection to the identified needs and to design systems of inclusion-oriented mission to a culture of origin (1). Health administrations, therefore, are called to improve performance through greater motivation and satisfaction of the staff, taking into account two strategic aspects: job satisfaction of professionals, it will be recognized, understood and cured continuously and organizational well-being which refers the relationship that binds people to their work environment, taking into account the many variables that characterize the operation of the team: interpersonal relationships, the meaning that people give to their work, the sense of belonging to their organization (1).

### *Job satisfaction*

Job satisfaction is defined as an emotional response to a worker in respect of its work, which is derived from the comparison between positive outcomes and benefits actually produced by labor and those who were wanted, desired, anticipated, believed to be correct and fair. It's the way people feel their work and the different aspects that qualify. It refers to a pleasant or positive emotional state resulting from the assessment made by an operator towards his work and his work experience (2). Job satisfaction is, therefore, be a complex and multidimensional construct because there are different variables that influence it: individual professional (eg. Age, sex, level of education); cultural (eg. beliefs and values); social (eg. the group dynamics, the formal and informal relationships); organizational (eg. personnel policies, the structure of the organization, technology, management systems); environmental (2, 3). Some research has shown that job satisfaction of health professionals is decreasing worldwide (4, 5).

This element is not negligible since the reduction of job satisfaction appears to have an important impact on patient care (2, 3, 9).

Low levels of job satisfaction, in fact, prevent health professionals to provide quality care to patients and to create an environment conducive to care, impacting negatively on health outcomes (6-9). Other authors have shown a strong association of job satisfaction with important variables of organizational behavior such as absenteeism (10), turnover and voluntary redundancy (11-14), motivation and performance at work (9, 15). Other studies show that some psychosocial factors such as work climate, professional commitment and the value attributed to work, can be considered predictive of the degree of job satisfaction because they have an effect on the general welfare of the professionals (9, 15, 16).

### *Team functioning*

Closely related to the perception of job satisfaction is the concept of team functioning. The goal of customer satisfaction may not be accompanied only by the satisfaction of the operator. Therefore, the welfare organization of the team, which organization's ability to promote and maintain, at all levels, the highest degree of physical, psychological, you also get the human resources and enhancing their work, enhancing their sense of belonging and satisfaction, spreading culture and participation.

Also working groups cohesive can become the place to grow professionally and to get answers to legitimate professional expectations (17). In this context, climate dynamics and organizational methods of collaboration adopted by the team represent significant variables: these are expressed through the perception of a particular workplace, by people who are part of. This perception is particularly strong and is able to influence the operational activities within the same context, and influence the experiences of the team members on the same professional environment to which they belong. Within the team functioning, then, are a number of perceptions related to variables such as, for example, relationships with colleagues and other health professionals and management style prevalent in the group (18). The study found the operators acting

within the processes of care and the dynamics within the operations team, would seem to favour, therefore, the understanding of the dysfunctions that occur within a healthcare organization which, while relying on environments, material and advanced technology, has as its main resource personnel. This aspect takes on a deeper meaning when transferred to specialized clinical settings such as the intensive care, where it has as function the assistance of the critical patient that requires a high level of intensity of care.

In literature, however, job satisfaction and the operation of the team have never been considered with respect to the three main figures that revolve around the patient care process, ie, doctors, nurses and social assistance (operators involved in primary the patient, such as hygiene and personal care), especially in specific contexts, such as the critical area. The objective of this study was therefore to investigate the level of job satisfaction and perception of the degree of effectiveness and operation of the team of health professionals doctors, nurses and Care workers (OSS).

## Method

### *Design*

Between January and September 2014, a survey at the OU (UUOO) intensive care and sub intensive has been made inside three hospitals in Emilia Romagna. It's been a multicentre cross-sectional quantitative study by administering a self-report questionnaire designed to investigate the different constructs.

### *Procedure e participants*

On 742 questionnaires were spread, 454 professionals gave it back (response rate = 73%). (response rate = 73%). Of those, 273 (60.1%) were nurses, 119 (26.2%) were physicians and 62 (13.7%) were healthcare operators. 62 (13.7%) professionals had less than 31 years, 198 (41.2%) less than 41, 134 (29.6%) less than 51 and 70 (15.5%) had 51 or more years. Two participants did not report his/her age. Moreover, 138 (30.7%) were men and 312 (69.3%) were women (4 participants did not report his/her gender).

### *Measures*

Job Satisfaction was misurate with the McCloskey Mueller Satisfaction Scale. This scale (19), used here in its Italian (20), measuring job satisfaction and consists of 31 items measured on a Likert scale to 6 steps (1 = completely dissatisfied, 6 = completely satisfied), and measure 8 dimensions ( explicit recognition, balance family and work, organization and working hours, relationships with colleagues, opportunities for social interaction, professional opportunities, and praise recognition and supervision and liability) summarized in a general factor of job satisfaction in this study showed a high internal consistency ( $\alpha = .94$ ).

Team Functioning was misurate with the Index of Interprofessional Team Collaboration (21). This scale measures the perception with respect to the operation of the team and consists of 14 items measured on a Likert scale in six steps (1 = very dissatisfied, 6 = very satisfied). The two dimensions, reflection on the processes and interdependent roles, can be summarized in a general factor of team collaboration that, in this study, has demonstrated high internal consistency ( $\alpha = .95$ ).

## Results

### *Preliminarily analysis*

Before comparing mean scores among professionals, psychometrics properties of the team functioning scale were tested through confirmatory factor analysis (CFA). CFA was performed with Mplus software (22) with maximum likelihood estimation and robust standard error. A two-correlated-factor model was tested and yielded satisfactory fit ( $\chi^2(72) = 188.78$ ,  $p < .00$ ,  $\chi^2/df = 2.62$ . CFI = 0.96, TLI = 0.95, RMSEA = 0.060, 90%CI = 0.049-0.049,  $p = 0.06$ , SRMR = 0.035) and all items were significantly represented by the relative dimension (all  $ps < .001$ ). Thus, the scores of both reflection on processes and role interdependence dimensions were computed as the mean of the intended items and higher scores indicated higher value of the measured construct. For job satisfaction, dimension scores were computed as the mean of intended items according to a-priori clas-

**Table 1.** Descriptive statistics and internal consistency of the measured constructs

	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$	Nr. Items
<b>Satisfaction</b>				
Extrinsic rewards	2.82	0.99	0.67	3
Family/work balance	3.43	1.19	0.74	3
Scheduling	3.43	1.01	0.80	6
Co-workers	4.26	1.05	0.76	2
Social Interaction	3.93	0.98	0.82	4
Professional opportunities	3.05	1.11	0.83	4
Praise/recognition	3.45	1.09	0.84	4
Control/responsibility	3.49	1.02	0.84	5
Total	3.45	0.81	0.95	31
<b>Teamfunctioning</b>				
Reflection on Process	3.34	1.02	0.93	7
Role Interdependence	3.73	0.94	0.88	7
Total	3.53	0.93	0.95	14

sification proposed by authors. Reliability was generally good for all dimensions. Table 1 shows descriptive statistics and internal reliability for dimensions of both team functioning scale and job satisfaction scale along with total scores.

### *Job satisfaction and professions*

In order to analyze differences in job satisfaction among physicians, nurses and healthcare operators, a multivariate analysis of variance (MANOVA) was performed on the 8 dimensions of job satisfaction. Analysis yielded a significant multivariate effect of profession (Wilks'  $\lambda = 0.804$ ,  $F(16,866) = 6.24$ ,  $p < .001$ ,  $\eta^2 = 0.10$ ). Univariate results evidenced that professionals had significant different scores on satisfaction toward scheduling ( $F(2,440) = 5.21$ ,  $p < 0.01$ ,  $\eta^2 = 0.02$ ) and professional opportunities ( $F(2,440) = 9.89$ ,  $p < 0.001$ ,  $\eta^2 = 0.04$ ). Post-hoc test evidenced that Physicians were less satisfied of scheduling than both nurses and healthcare operators. For professional opportunities, instead, healthcare operators showed the lower level of satisfaction. Moreover, univariate results indicated almost significant effect on opportunities of social interaction ( $F(2,440) = 2.85$ ,  $p = 0.055$ ,  $\eta^2 = 0.01$ ) and extrinsic rewards ( $F(2,440) = 2.83$ ,  $p = 0.056$ ,  $\eta^2 = 0.01$ ). As indicated in table 2, healthcare operators tended to show the lower satisfaction on extrinsic rewards while physicians tended to show the lower satisfaction on social interaction. Finally, an analysis of variance MANOVA

**Table 2.** Means of the measured constructs according to profession

	Nurses		Physicians		Healthcare operators	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Satisfaction</b>						
Extrinsic rewards <sup>^</sup>	2.75 <sub>a</sub>	0.98	2.99 <sub>a</sub>	0.92	2.67 <sub>a</sub>	1.11
Family/work balance	3.39 <sub>a</sub>	1.20	3.44 <sub>a</sub>	1.18	3.58 <sub>a</sub>	1.21
Scheduling*	3.50 <sub>b</sub>	0.97	3.17 <sub>a</sub>	1.01	3.58 <sub>b</sub>	1.11
Co-workers	4.22 <sub>a</sub>	1.04	4.36 <sub>a</sub>	1.01	4.26 <sub>a</sub>	1.19
Social Interaction <sup>^</sup>	4.02 <sub>a</sub>	0.95	3.75 <sub>a</sub>	0.99	3.87 <sub>a</sub>	1.15
Professional opportunities*	3.16 <sub>a</sub>	1.11	3.11 <sub>a</sub>	1.04	2.53 <sub>b</sub>	1.15
Praise/recognition	3.49 <sub>a</sub>	1.07	3.39 <sub>a</sub>	1.08	3.47 <sub>a</sub>	1.22
Control/responsibility	3.57 <sub>a</sub>	0.98	3.43 <sub>a</sub>	1.01	3.30 <sub>a</sub>	1.17
Total	3.50 <sub>a</sub>	0.80	3.38 <sub>a</sub>	0.78	3.38 <sub>a</sub>	0.91
<b>Team functioning</b>						
Reflection on Process	3.34 <sub>a</sub>	1.01	3.27 <sub>a</sub>	0.96	3.46 <sub>a</sub>	1.15
Role Interdependence	3.70 <sub>a</sub>	0.93	3.74 <sub>a</sub>	0.87	3.87 <sub>a</sub>	1.10
Total	3.52 <sub>a</sub>	0.91	3.50 <sub>a</sub>	0.87	3.66 <sub>a</sub>	1.08

\* significant differences among professionals for  $p < .01$ ; <sup>^</sup> differences among professional for  $p < .06$ . *M*= mean; *SD*= standard deviation. For each row, different subscripts indicated different means at Bonferroni's post-hoc test.

was conducted on the total score of job satisfaction and revealed no significant differences among professionals ( $F(2,451) = 1.01, p = 0.33, \eta^2 = 0.00$ ).

### *Team functioning and professions*

Also in this case, a multivariate analysis of variance (MANOVA) was performed considering the two dimensions of team functioning as dependent variables and profession as independent variable. In this case, no significant multivariate effect appeared (Wilks'  $\lambda = 0.991, F(4,900) = 1.07, p < .001, \eta^2 = 0.00$ ). Accordingly, no significant univariate effect emerged. Mean are shown in table 2.

## **Conclusion**

Based on data obtained and analyzed it is noted that, in general terms, between different professions there are such clear differences, in fact, all professionals working in UU.OO. Intensive Care/subintensive considered appear to be on average satisfied with their jobs. The participants, in particular, said a degree of job satisfaction more than relationships with colleagues, to follow, tend to turn out to be satisfied for the other dimensions: opportunities for social interaction, understood as the opportunity to have social contact with colleagues outside the hours of service at even in the workplace; control and responsibility, understood such as awareness to supervise and control their work.

Compared to the other dimensions of satisfaction such as work-family balance, (eg. The ability to take advantage of maternity leave or permission for children), the organization of working time (eg. As the flexibility of working hours, opportunities par - time), the professional opportunity and the praise and awards (eg. as the opportunity for career advancement or recognition of their work by superiors), the participants said they were just satisfied with a result to barely above the median theoretical scale. Among the participants prevails, however, the perception of dissatisfaction with the explicit recognition of professional, such as salary, holidays and benefits.

Compared to the three professions considered, in most of the dimensions of the satisfaction working in-

vestigated, there were no statistically significant differences. However, it should be noted, a difference with respect to two specific factors: planning and organization, which is perceived to a lesser extent by nurses; the professional opportunity that is perceived to a lesser extent by the OSS.

Also with regard to the Team Functioning, the study shows in general, the participants seem to perceive a high level of team effectiveness and therefore the professionals involved in care of critically ill patients. Specifically, with respect to the two dimensions analyzed, they declare a greater tendency to respect the roles maintaining their professional autonomy, and a lower tendency to use critical thinking in acting professional single operator, optimizing the reflection on strategies to improve relations to 'internal team, stimulating continuous feedback in order to improve the effectiveness of care provided (23).

The study results oriented healthcare administrators to take paths that feed the job satisfaction and the collaboration of professionals such as: encouraging greater flexibility in working hours; create favorable conditions for career advancement and its recognition, even economic; create formal moments of exchange and discussion among professionals.

Considering the shared perception among the professions studied, compared to the constructs under investigation, it appears to be clear that the routes proposed above should be designed in a systematic, in order to engage in an integrated manner the major professionals (nurses, doctors and OSS) involved in the care of critically ill patients.

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