

Working Environment and Burnout Syndrome

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Abstract

Purpose: The excessive and prolonged occupational stress can result in worker's emotional exhaustion known as burnout syndrome. The aim of this study was evaluated the relationship between perceived organizational support and the risk of developing burnout.

Methods: It's a descriptive observational cross-sectional study. The burnout's risk was assessed by the Maslach Inventory Burnout and the organizational support through the Perceived Organizational Support Scale.

Results: From the research subjects, 36 (55.38%) presented a risk for burnout. Comparing this group with the employees without risk for burnout, three organization support factors were perceived as critical: The supervisor support ($p=0.036$), the relationship at work ($p=0.012$) and the professional valorization ($p=0.0009$).

Conclusion: The organizational support at work has a significant relationship with the risk of burnout, especially the role of leader in management of employees.

if they are badly managed can increase the psychosocial risks and the stress, impacting negatively at the individuals' health [1-3].

The situations of mental stress and tension habitually happen in the workplace and they are not, necessarily, the causes of mental diseases. On the contrary, they can motivate the worker to face and to overcome the challenges, to innovate, to develop the competences and to reach a great mental health condition. Being like this, the threshold between the mental diseases and the mental health depends on the balance among the referred dimensions, the worker's individual characteristics and yours capacity to facing the situations of mental suffering and tension. A rupture in this balance can results in an exhaustion state emotional, mental and physical of the known worker as burnout or it stress professional [1-4].

The several facilitators of the burnout syndrome are well known and have been studied. Among them, there are the organization of the work (function overload, excess of norms, autonomy lack, inefficient communication, impossibility of career ascension, frequent shift changes or night works), the individual's characteristics (women, young, superior education level, few work experience, bachelors, perfectionists and with extreme working dedication) and the social factors (the employees as the economic supports of their families and communities) [4-6].

Keywords: Burnout; personal management; Organizational policy; Interpersonal relations; Epidemiology

Introduction

Constant modifications in the occupational world are responsible for frequent transformations in the productive processes and in the model of administration of the companies, with the objective of maintaining the competitiveness. As a consequence of it, the mental demands have increased the cognitive, emotional and psychosocial aspects, in several occupations. Many of those changes can contribute to the development of the organizations, however

Considering that the work atmosphere is one of the main factors in the development of the burnout and of the occupational stress, the objective of this study was to identify, in the perception of workers at risk for the syndrome, which organizational support factors have a significant relationship with the development of the professional stress. The secondary objective was to discuss the interventions at the organizational support that could reduce the risk of burnout syndrome based on the founded results.

Methods

It was a cross-section and descriptive study, with quality and quantitative strategies, through the systematic collection of data from a self-report questionnaire. The research was accomplished during the 2011, in a population of employees of a Bone Marrow Transplantation (BMT) Service of a Brazilian public hospital. The service of BMT consists of 30 beds, being 20 adults and 10 paediatrics. The employees were a total of 81 nurses and nursing technicians working in this service in shifts (morning, afternoon and night). It was considered necessary a specific study in this group of workers considering the peculiarities existing in a service of BMT that differs from other work environments (such as the care for patients with critical illnesses with imminent risk of death; prolonged hospitalizations; emotional involvement with patients; demand for positive results (cure); frequent exposure to death and its stressful repercussions on employees).

The permission to conduct this study was received from the Humans Research Ethics Committee of the Clinical Hospital linked to the Federal University of Paraná (registration number 2353.247/2010-10). The informed consent was obtained from all the subjects. The workers who were not working because of gestation, accident or illness during the period of application of the questionnaires were excluded from the study. Sixty-five employees (80.24%) had participated of this study, with a confidence interval (CI) of 94%, that is, the number was considered representative of the total population of workers linked to the BMT service. As the investigation method of the professional fatigue, the Maslach Burnout Inventory (MBI) adapted for the Portuguese language was used [7,8]. This questionnaire consists of 22 questions to be answered on a Likert scale, ranging from zero to six, being: (0) never, (1) once a year or less, (2) once a month or less, (3) sometimes in the month, (4) once a week, (5) sometimes a week, (6) every day. The three dimensions of the syndrome (emotional exhaustion, depersonalization and reduction of the professional achievement) were analyzed respecting antecedents and consequences of their process.

The emotional exhaustion was assessed in the questions one through nine: it refers to the physical and mental exhaustion, the feeling of having reached the limit of possibilities. On the other hand, the reduction of the professional achievement was evaluated in the questions 10 through 17: It was related with the perception of the influence of others in the work environment, the well-being with work as well as the relation of the nursing team with their problems, evidencing the feeling of dissatisfaction. Finally, the depersonalization was assessed in the questions 18 through 22: It consists of changes in the individual's attitudes when contacting the users of their service, demonstrating a cold and impersonal contact with the suffering patients [8]. The average patterns of emotional exhaustion are between 16 and 25 points, of depersonalization among 3 and 8, and the reduction of professional achievement are between 34 and 42, data from national samples [7,8]. The subjects, who presented high score on emotional exhaustion or depersonalization, or sustained reduction of professional achievement, were

included in the burnout risk group, as the criteria proposed by Grunfeld et al. [9].

Another instrument used in this research was the Survey of Perceived Organizational Support (POS), adapted for the Portuguese language and culture by Tamayo [10], with the objective of evaluating the following factors:

Supervisor support – The individuals' perception about the manager's safety and ability to translate the organizational policies and practices into their unit, as well analyze objectives and goals, and create plans to meet or exceed them;

Material support – The perception of the individuals about the availability, suitability, sufficiency and quality of the material and financial resources provided by the organization to help the effective execution of the tasks;

Payment – Perception of the individual if the salary is worthy and compatible with the best in the market;

Relationship at work – The individual's perception about the existence and availability of social support and the quality of the interpersonal relationship with the boss and colleagues, with respect, justice and ethics;

Professional Training – Perception of the individual in how much the company invests in professional training of its employees (orientation, lecture, continuing education);

Professional Ascension – The perception of the individuals in professional growth at work (promotion, career);

Work overload – The individuals' perception regarding the excessive production demands defined for the employees' group, associated to the rigorous chase of results;

Performance management – The individuals' perception about the organizational policies and practices that regulate the work process in the institution as a whole;

Professional valorization – Refers to the individuals' feelings about the value of their work (not financially), by the colleagues, managers and other professionals (for example, doctors).

The questionnaire used in this study was composed of seventeen questions that were answered on a Likert's frequency scale of with five points: from 1 = "never" to 5 = "always". Generally, as higher the score reported by the worker, the better is the perception of the organizational support noticed. On the other hand, for the subjects that evaluate the work overload, the relation is inverse, which is, the higher the score, the higher the workload. The Cronbach α it was 0.79, which represents a satisfactory reliability of the instrument in relation to the studied population.

Finally, the socio-demographic data were tabulated and evaluated for descriptive statistics (mean, median, percentage and standard deviation-SD). To verify the statistical correlations, the logistics' regression analyses were used in the categorical (nominal) variables. For the numerical variables, the authors opted for the ANOVA test, in the univariate cases, and MANOVA, for the multivariate cases. The p-value was

considered significant equal or less than 0.05, that is, with a significance level of 95% (CI 95%).

Results

Of the eighty-one nurses and nursing technicians linked to the BMT service, in the different work shifts, including the chemotherapy and palliative care units, 65 answered the questionnaire (CI 94%), 11 refused to participate in this research and five were on vacations. Therefore, the response rate was 80.24%.

Regarding this sample, there was a female prevalence of workers (95.4%), with a mean age of 36.9 years (range between 21 and 57 years, with a median of 35 with SD $\pm$ 11.3). As for the marital status, 50.8% live with a partner and 41.5% have children. The majority had nursing degree (56.9%) and the majority worked exclusively in the analyzed institution (69.3%), the working time range from 6 months to 25 years (Table 1).

Table 1: Demographic profile of the study population.

Identification Data	Category	Frequency	%
Number of subjects		65	100
Genre	Masculine	3	4.60
	Feminine	62	95.40
Age	20 e 29 years-old	27	41.50
	30 e 39 years-old	12	18.50
	40 e 49 years-old	14	21.50
	Above 50 years-old	12	18.50
Working time in this service	Less than 2 years	34	52.30
	Between 2 and 10 years	6	9.30
	Over 10 years	25	38.40

Concerning the questionnaire on professional fatigue data, the results were described in the **Table 1**. About the emotional exhaustion dimension, the mean score obtained was 22.26, considered to be a moderate level of the burnout syndrome. For depersonalization, the mean was 3.98 and 56.9% which presented low level. Regarding personal accomplishment, the mean score obtained was 36.6, and the majority of interviewees presented moderate personal performance (50.8%).

When the moderate and severe levels were assessed together for each burnout dimension, there were 67.7% of cases of emotional exhaustion and 43.1% of depersonalization. At the personal achievement, the low and moderate levels were observed together in 76.9% of the individuals who answered the questionnaire. Only considering the severe level (high), 36.9% exhibit only one dimension, 15.4% had two and 3% showed the three dimensions. In general, 55.4% presented alteration in at least one of the dimensions (high level of

emotional exhaustion or depersonalization and low level of professional achievement) and 3% presented alterations in the three dimensions (**Table 2**).

Table 2: Maslach questionnaire results.

Dimensions	Results	%
Emotional Exhaustion (average score)	22.26	-
Lower	21	32.30
Moderate	23	35.40
High	21	32.30
Moderate and High	44	67.70
Depersonalization (average score)	3.98	-
Lower	37	56.90
Moderate	16	24.60
High	12	18.50
Moderate and High	28	43.10
Personal Accomplishment (average score)	36.6	-
Lower	17	26.20
Moderate	33	50.80
High	15	23.10
Lower and Moderate	50	76.90
Presence at least one dimension with high scores	36	55.40
Presence of high level in all three dimensions	2	3.10
Font: Developed by the research team		

Regarding the POS questionnaire, the mean score of all the perceived organizational support factors was 3.29 (SD $\pm$ 0.41). The worse perceived factor was the professional valorization (2.55), while the payment received the higher mean score (4.24). The risk group for burnout (36) presented an average score of 3.09 (SD $\pm$ 0.45), and the best evaluated factor was the payment (4.06) and the worst was the professional valorization (2.55). The group without burnout risk had a mean score of 3.48 (SD $\pm$ 0.43), and the best evaluated factor was also the payment (4.24) and the worst was the work overload (2.70). Comparing the POS factors between the groups, the mean score of the supervisor's support ($p=0.036$), the interpersonal relation ($p=0.012$) and the sense of professional valorization ($p<0.001$) were lower in the group at risk of burnout. There were no statistically significant differences between the other variables (**Table 3 and Figure 1**).

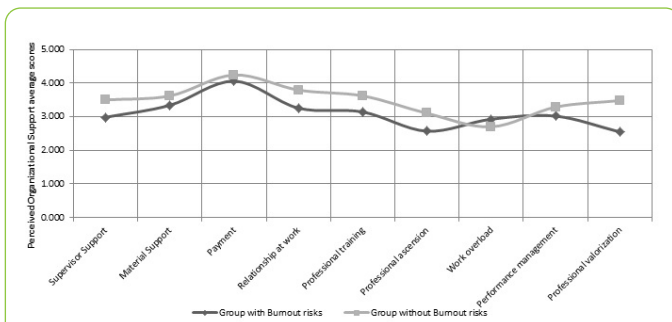


Figure 1: Comparing average scores of Perceived Organizational Support factors between the groups with and without Burnout risks.

Discussion

In the studied population, it was possible to identify, through MBI, an expressive group of workers with risk of burnout, that is, with at least one of the syndrome dimensions altered. However, if we compare with other studies that used the same methodology in health workers, we identified that the results were very similar, both in the number of cases found, such as in the mean score obtained in the syndrome dimensions [11,12]. Therefore, it was concluded that the burnout risk was equivalent to that found in other health populations, considering the use of the same methodology of this study [6,13].

The organizational support refers to the worker's perception concerning the treatment that receives from the organization in retribution to their efforts in the work, in a relationship of reciprocity expectation and mutual benefits [14,15]. Regarding these study results, about the statistical significance, there were three POS factors negatively evaluated by the group of burnout risk compared with the employees without the risk: supervisor support, interpersonal relationship and professional valorization. The same organizational factors were also pointed out in a group with similar burnout risk [16]. The same organizational support factors were identified in another study with the same methodology in a group of health professional in Brazil [16]. More recent study states the significant relationship between organizational support and burnout in nurses [17]. Non-health workers also had a significant relationship between burnout risk and perception of organizational support, especially organizational support, fairness and organizational rewards [18]. The results of this study, therefore, reinforce the evidence the evidence of relationship between organizational support and burnout.

Therefore, to analyze these study results, we can separate the organizational support in two dimensions. The first is related to the social support, including the interpersonal relationship in the work environment and the support of employees, leadership style, as well as the sense of professional valorization to the work performance (non-financial). The second dimension represents the organizational support itself, including justice, workload, material support,

ascension and payments. It can be concluded that the social support dimensions, as a whole, had a significant relation with the risk of burnout. There was no statistical significance among the other factors of the POS evaluated. This demonstrates the existence of positive organizational conditions in the workplace, such as the balance between demands and structure (work overload and available resources), professional training (safety in the execution of processes) and remuneration compatible with the local health market.

In spite of all the difficulties and scarcity of resources that the Brazilian public health system habitually faces, some peculiarities can be found in this service that could justify the founded results, as a favourable payment, number of employees proportionally higher than other sections, support of resources and appropriate material support. On the other hand, despite the existence of some favourable factors of the POS, it cannot be excluded from its relation with the risk of burnout. According to the mean score of each POS factor, shown in the **Figure 1 and Table 3**, it is possible to identify that the burnout risk group tended to negatively assess all the POS factors. In the study by Tamayo and Tróccoli [10], there was a significant negative perception of the POS by the workers with emotional exhaustion in all the factors evaluated. Therefore, it is recommended that all the factors of the POS be systematically analysed to identify the critical points that need to be improved.

Table 3: Relationship between perceived organizational support (POS) and Burnout risk: Description of the average scores in the variables of the POS questionnaire.

POS variables	With Burnout risk	Without Burnout risk	P-Value
Employees sample	36	29	-
Supervisor support	2.99	3.5	0.036
Material support	3.34	3.62	0.256
Payment	4.06	4.24	0.405
Relationship at work	3.26	3.79	0.012
Professional training	3.14	3.62	0.09
Professional ascension	2.57	3.1	0.092
Work overload	2.93	2.7	0.375
Performance management	3.02	3.29	0.165
Professional valorization	2.55	3.48	0.000

The results of this study identified that actions aimed at social support must be a priority to reduce the impact of burnout on workers. The supervisor coaching and the implementation of employees' professional valorization practices are some actions to improve social support in the work environment [15]. The workload must be sustainable, with the support of the supervisor and the others employees to face the difficulties and value the achievements (even incomplete), treating all employees with respect and justice. It should be emphasized that the success of these interventions

facing the burnout syndrome should not only consider organizational strategies, but also aspects of individual and their relationship with the work environment [15]. The manager should contribute to the engagement and improvement the worker's positive emotional experiences (savor) to achieve the purposes of the company [15,19,20]. It is necessary to manage the personal aspects of workers (such as personality types, individual level of resilience, expectations, limits, emotional self-control, individual job satisfaction) as well as their interaction with the work environment, potential of each individual to form a motivated, integrated and productive team. Individual or collective feedback is the manager's best opportunity to get to know his team and the individual characteristics of each worker, understand their difficulties, seek shared solutions and assist them in the development of their skills and in the growth of professional work [20]. In short, leadership is expected to a proactive and dynamic stance that could inspire, develop and value the employees, manage the relationships of the team, with the goal of reaching the commitment and motivation of all staff [15,19,20].

It is a unicentric study that had a small number of research subjects. Although the sample size is small, it should be considered representative of the population service studied (CI 94%). In addition, considering that the objective was to analyze this specific organizational support, the inclusion of other services from the same hospital or other hospitals just to increase the size of the sample could interfere in the results of the study, since different services have different characteristics of the work environment (such as people management policies, payment, social support and material support). Thus a service with an appropriated organizational support profile could conceal the negative results of another unfavourable service. Therefore, new studies are recommended to prove or to discard the conclusion of this research, with a greater number of subjects and including only work environments with an equivalent organizational support.

The results of this study reinforce the hypothesis of the relationship between the organizational support and professional stress, especially in the social support work. As the service under analysis in this study represents a national reference in its area of activity, the increase in the burden on the results of its employees can be quantified and compared to the risk of burnout. The employees' perceptions of supervisor support, relationship of work, professional valorization and the performance management were significant in the burnout risk group. Therefore, a promotion and prevention program based on worker's mental health should include the evaluation of the organizational support; the identification of the critical factors and the planning of actions of continuous improvement, to obtain a healthy and productive work environment.

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