

The relationship between burnout and quality of life

MAYRA GRAVA DE MORAES

Universidade Estadual Paulista "Júlio de Mesquita Filho" (Unesp), Bauru, SP, Brasil.
E-mail: mayra-grava@hotmail.com

VINICIUS BARROSO HITORA

Centro Universitário UniAnchieta, Jundiaí, Brasil.
E-mail: vbhirota@gmail.com

CARLOS EDUARDO LOPES VERARDI

Universidade Estadual Paulista "Júlio de Mesquita Filho" (Unesp), Bauru, SP, Brasil.
E-mail: carlos.verardi@unesp.br

Abstract

Quality of life is an essential aspect of physical and mental health, which can be affected by burnout. There is evidence that shows the effects of psychological disorders such as professional exhaustion associated with poor quality of life as a reduction of motivation and professional achievement. Besides, burnout influences social, physical, cognitive and professional aspects. Therefore, the objective of this study was to analyze the participants' vulnerability to burnout and their quality of life levels. Also, to compare the quality of life of the individuals most vulnerable to this syndrome with the rest of the sample of lower vulnerability. The present study included 52 workers between doctors and teachers. Data collection consisted of the Sociodemographic Inventory, Whoqol-Bref, and Maslach Burnout Inventory response. The results showed that 19.2% of the total sample had high levels of burnout and these same participants also obtained lower scores in all domains of quality of life compared to the other participants. These problems can be seen as a social issue because their consequences, such as the loss of quality of work and even harmful effects on the health system and education extend and affect other people who are directly related to those professionals vulnerable to the syndrome.

Keywords

Burnout. Quality of life. Mental health. School teacher. Physician.

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INTRODUCTION

Currently, studies about workers' well-being and quality of life are growing, in part because these professionals are exposed to workplaces that increase the risks of stress, depression and specifically burnout (RICHTER *et al.*, 2014). In front of this, the burnout is pointed as a stress syndrome, occurring when job demands are high while job resources, such as individual autonomy, social support and receiving feedback are low (RICHTER *et al.*, 2014). Burnout is a psychological strain initiated with work overload, influenced by job-stressors, which may frustrate the efforts that should bring a positive impact (MASLACH; JACKSON, 1981). It conceptualizes by three-dimensions measurement: emotional exhaustion (EE), depersonalization (DE) and professional accomplishment (PA) (MASLACH; SCHAUFELI; LEITER, 2001). EE is feeling depleted emotionally and in the limit of all the possibilities. DE appears as an attitude of cynicism, irony and emotional insensitivity. Moreover, PA is characterized by worker dissatisfaction (BORGOGNI *et al.*, 2012; MASLACH; SCHAUFELI; LEITER, 2001). When the employee shows high levels of EE and DE, while diminished PA is detected, the vulnerability to burnout is identified (BENEVIDES-PEREIRA, 2012).

Professionals who work extensively assisting to other individuals, impossibility to meet their needs, who continue to seek the meaning for their job through recognition of the beneficiary population and the institution where they work, are more susceptible to stress (SHANAFELT; DYRBEY; WEST, 2017). Besides, some workers are subjected to an extensive workload, including night periods, strong rhythm, requests for increased productivity, destining only a few moments to leisure, rest, personal care or physical exercise (MALIK; BJÖRKQVIST; ÖSTERMAN, 2017), directly affecting their quality of life by these factors.

The quality of life is an essential aspect of physical and mental human health, what can be affected by burnout (NAZ; HASHMI; ASIF, 2016). There are shreds of evidence that the effects of psychological distress as burnout and reduced quality of life can affect motivation and professional achievement among workers (LYNDON *et al.*, 2017). A study investigated the association between career satisfaction, burnout and quality of life (VOLTMER *et al.*, 2008), and the results pointed that nearly 40% of American physicians in their sample met all dimension of burnout. Furthermore, the syndrome was as-

sociated with psychological aspects of quality of life, and approximately 30% of all physicians studied showed significantly low levels for this domain (VOLT-MER *et al.*, 2008). These data showed that burnout should be considered as a problem of extreme relevance for the worker population. There was a need to deepen their study because it has a social aspect, relating to the mental and physical worker's health (BENEVIDES-PEREIRA, 2012; MALIK; BJÖRKQVIST; ÖSTERMAN, 2017; MASLACH; SCHAUFELI; LEITER, 2001), causing complications in the quality of the profession and the life of these individuals.

Through these concern factors, we observed there are only a few studies relating the burnout to the worker's quality of life. The hypothesis of the present study indicates an inverse relationship between burnout and employees' quality of life on physicians and teachers. Against this exposed context, the main objectives of this research were to identify and quantify the indicators of burnout and domains of quality of life in the sample studied, as well as comparing the dimensions of these variables between the group most vulnerable to the syndrome and the rest of the sample.

METHODS

The present study included 52 workers between doctors and teachers of both sexes who have 30 or more hours of work a week. The selection of doctors and teachers for the study participation is justified, as studies highlighting the vulnerability of these professions to burnout have been very present in the literature (MALIK; BJÖRKQVIST; ÖSTERMAN, 2017; MICHEL; SANGHA; ERWIN III, 2017; PANAGIOTI *et al.*, 2017; WEST *et al.*, 2016; WEST; DYRBYE; SHANAFELT, 2018). Both professions carry out diversified functions and maintain contact with different emotions throughout the race.

Therefore, the participants were selected for convenience, through digital dissemination of research (social networks workplaces of participants such as hospitals, doctors' offices, schools, and colleges). Only those individuals who were involved in education as teachers and in health as doctors were included. No category present within both professions was excluded. Only professionals who answered the questionnaire in the wrong way or who did not answer any question were excluded after data collection.

The study was submitted and approved by the Research Ethics Committee of the State University of Sao Paulo (n° 1.311.894). The data collection was individually scheduled, and the participants signed the informed consent form.

All participants answered the Sociodemographic Inventory and others validated questionnaires about quality of life (THE WHOQOL GROUP, 1998) and burnout (MASLACH; JACKSON, 1981) in the presence of the author. All of the questionnaires were psychometrically stable and had been used among several professionals worldwide.

The Maslach Burnout Inventory (MBI) to assess participants' self-perception of burnout; we used the Brazilian version of MBI (BENEVIDES-PEREIRA, 2002). It is a standard measure of burnout that includes 22 items scored on a seven-point Likert scale ranging from 0 (never) to 6 (every day). The MBI encompasses three domains: 1. emotional exhaustion (score range 0-15 low, 16-25 medium and 25-54 high); 2. depersonalization (score range 0-2 low, 3-8 medium and 9-30 high) and 3. personal accomplishment (score range 0-33 low, 34-42 medium and 43-48 high).

About the quality of life, the Whoqol Bref - the Brazilian version of the World Health Organization Quality of Life Assessment (FLECK *et al.*, 2000) – is a general short-form measure of the quality of life that consists of 26 items clustered in four domains: physical health, psychological health, social relationships, and the environment. Answers are on a five-point Likert scale, and scores for each domain are transformed into a linear scale that ranges from 0 (least favorable quality of life) to 100 (most desirable quality of life).

For the other descriptive statistics, a significance level of 5% was settled, considering statistically significant when $p \leq 0,05$ was indicating model validity. The data were analyzed by the GraphPad Prism[®] software version 6.0, elaborating tables of the realized statistics. We used the non-parametric Mann-Whitney test to compare the burnout dimensions with the quality of life domains.

RESULTS

The sample consisted of 52 workers between teachers and physicians, with a mean age of $38,63 \pm 10,23$, being 56% ($n = 29$) female and 44% ($n = 23$) male, and 27% of the sample were physicians, while 73% were professors. Participants had an average of $52 \pm 19,90$ hours per week of workload, being that 51,9% ($n = 27$) of the sample worked 50 or more hours per week.

The burnout dimensions were analyzed separately and the results are presented in Table 1.

Table 1 ■ Sample description on burnout indicators

Variable	n	%
Emocional exhaustion		
Low	19	36,5
Median	15	28,9
High	18	34,6
Depersonalization		
Low	18	34,6
Median	21	40,4
High	13	25
Professional achievement		
Low	22	42,3
Median	21	40,4
High	9	17,3
Total	52	%

Source: Elaborated by the authors.

These data show that 19,2% of the total sample presented high levels of emotional exhaustion and depersonalization and low levels for professional achievement, making it clear that this group presented increased risk for the syndrome (Graphic 1). The group that showed the risk for burnout obtained averages of $36 \pm 8,21$ for Emotional Exhaustion, $13,20 \pm 3,93$ for Depersonalization and $28,5 \pm 6,36$ for Professional Achievement. The group with low levels of the syndrome pointed average scores of $17,23 \pm 8,77$ for Emotional Exhaustion, $4,02 \pm 4,18$ for Depersonalization and $37,02 \pm 5,33$ for Professional Achievement.

According to the results pointed out in Table 2, the instrument used to analyze the quality of life (WHOQOL-Bref) showed each domain specifically in the total sample.

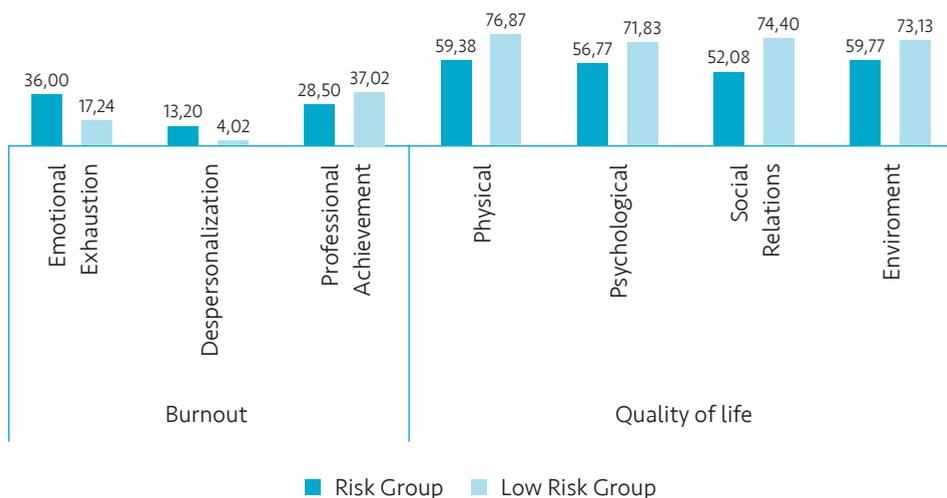
Table 2 Quality of life domains in the total sample

Domain	Mean	Standard deviation	Minimum	Maximum
Physical	15,65	2,39	9,14	20,00
Psychological	14,91	2,31	8,67	19,33
Social Relations	15,21	2,91	6,67	20,00
Environment	15,22	2,04	9,50	18,00
Self-rated quality of life	14,96	3,11	6,00	20,00

Source: Elaborated by the authors.

We identified the group that presented the highest risk for the burnout and analyzed their quality of life. The combination of these levels determined the risk group: emotional exhaustion (≥ 25) and depersonalization (≥ 9) classified as high, together with reduced levels of professional achievement (≤ 33). thus, we used the mann-whitney test to compare the risk group ($n = 10$) and the low-risk group ($n = 42$), according to the three dimensions of the syndrome and the quality of life of these participants (Table 3, Graphic 1).

Graphic 1 Comparative between risk group and low-risk group about burnout and quality of life



Source: Elaborated by the authors.

Individuals who were classified with risk for burnout had higher scores on emotional exhaustion ($p < 0,0001$) and depersonalization ($p < 0,0001$), and lower scores on professional achievement ($p = 0,0003$). In this context, these same participants also obtained low scores in all domains of quality of life (Table 3) concerning the other participants, demonstrating a statistically significant difference in all variables.

Table 3 Statistical analysis Mann-Whitney test of dimensions and domains about participants with higher and lower risk

	Mean (SD)		P value
	Low risk	Risk	
Dimensions			
Emocional Exhaustion	17,24 (8,78)	36,0 (8,22)	< 0,0001*
Despersonalization	4,02 (4,18)	13,20 (3,94)	< 0,0001*
Professional Achievement	37,02 (5,34)	28,50(6,36)	0,0003*
Domains			
Physical	16,30 (1,87)	12,91 (2,47)	0,0022*
Psychological	15,49 (1,87)	12,47 (2,46)	0,0036*
Social Relations	15,90 (2,36)	12,27 (3,25)	0,0065*
Environment	15,70 (1,52)	13,10 (2,69)	0,0355*
Self-rated quality of life	15,57 (2,91)	12,40 (2,63)	0,0023*

* $p \leq 0,05$

Source: Elaborated by the authors.

DISCUSSION

The current research had as the primary objective to analyze the vulnerability of burnout and quality of life in physicians and teachers, and to compare the quality of life of the most vulnerable individuals to the syndrome with the rest of the sample. First, the results pointed that 51,9% of the sample work 50 or more hours per week, which is more than half of the population studied. These individuals spend more than 8 hours per day working, at home or in the workplace, which corroborates with the leading causes of the syndrome mentioned in the literature, the work overload (MASLACH; JACKSON, 1981; MASLACH; SCHAUFELI; LEITER, 2001; TOKER; BIRON, 2012).

Through the numbers that characterized the sample as overloaded workers, when analyzing data referring to burnout, we observed that of the total sample, 34% showed elevated levels of Emotional Exhaustion and 25% of Depersonalization, while 42% presented Professional Achievement levels below of the expectations. These numbers not only corroborate with the 19,2% of individuals vulnerable to burnout but also, according to Dutra-Thomé and Koller (2014), direct that the intense dedication of these workers to the profession can lead to burnout when their efforts do not reach the goals. Through this, previous studies have identified several factors associated with the development of burnout: personal characteristics, working conditions, work overload, little support and no feeling of useful work (GARLAND; ROBERTS; GRAFF, 2012; RICHTER *et al.*, 2014; TOKER; BIRON, 2012). The greatest risk for the syndrome is given when individuals reach high scores for emotional exhaustion and depersonalization and low scores for professional achievement (MASLACH; SCHAUFELI; LEITER, 2001). However, obtaining high scores for one or two dimensions does not eliminate the possibility of the syndrome (GARLAND; ROBERTS; GRAFF, 2012).

The population studied (physicians and teachers) has some additional functions as administrative work (DALAGASPERINA; MONTEIRO, 2014). In the case of teachers, in addition to teaching their classes, they need to organize extra-school work, participate in pedagogic meetings, guidelines and also to comply with the requirement of institutions for publications of scientific articles (DALAGASPERINA; MONTEIRO, 2014; SHEN *et al.*, 2015). Although in medicine there are not these functions, the doctors have an extended work day, and the need for emotional control to deal with patients, relatives, and also with death (GUNASINGAM *et al.*, 2015; WEST *et al.*, 2016). And the mentioned work overload can be explained by these factors.

In this context, we also analyzed the quality of life of these individuals, and we verified that the participants with greater vulnerability to the burnout presented a statistically significant difference in the quality of life in all domains about the rest of the sample, which showed less vulnerability to the syndrome. There may be a relation between the level of the psychological domain in individuals at risk for the syndrome, which was the domain that presented the lowest level ($14,91 \pm 2,31$) concerning the others. Lyndon *et al.* (2017), showed in their research that nearly 40% of the American physicians in their sample met all dimensions of burnout. The syndrome was associated

with psychological aspects of quality of life, and approximately 30% of all physicians studied showed significantly low levels for this domain.

The high levels of depersonalization (25% of the sample) can corroborate with a study (PALAZZO; CARLOTTO; AERTS, 2012) that observed an increase in the levels of depersonalization when workers perceived the job as something stressful with the presence of interpersonal conflicts. Moreover, when the employee recognizes the environment as democratic, participatory and positive, there is scope for the dimension levels reduce (WEST; DYRBYE; SHANAFELT, 2018).

The results obtained showed 42,3% of the sample classified as low for Professional Realization, that is, this percentage presents low job satisfaction. The dissatisfaction with the physical environment, function exercised, the lack of participation in the decision making and with the supervision, elevates the feeling of emotional exhaustion (MYHREN; EKEBERG; STOKLAND, 2013). In this sense, the organizational factors that include work overload, lack of innovation and stimulation, lack of autonomy, negative interpersonal relations among colleagues or superiors, problematic interactions with patients or students, bureaucratic pressures and lack of feedback are elements essential to the emergence of burnout. Meanwhile, job satisfaction, leadership, benefits and organizational policies are essential elements of professional achievement and, consequently, can be understood as protective factors for burnout (GOLD; ROTH, 2013).

The professional achievement in many situations can function as a control mechanism that seeks to restore psychological losses, restoring a framework of values, beliefs and guiding presuppositions of a collective behavior appropriate to organizational objectives (MYHREN; EKEBERG; STOKLAND, 2013). Increased knowledge about job satisfaction is important because this may affect the physician-patient or teacher-student relationship (SHEN *et al.*, 2015). In the hospital environment, this relationship is still little studied. However, Scheepers *et al.* (2015) performed a systematic review that indicates that the occlusal well-being of physicians can contribute to improve patient satisfaction and greater adhesion to a complex.

The hypothesis of the present study related inversely to burnout and the quality of life in physicians and teachers. Through the results we confirmed that hypothesis, but we emphasized the need for further studies on burnout and its significant relationship with the workers' quality of life. We believed

that these future studies are relevant to the production of scientific knowledge regarding this theme, which is not well explored, given the importance and severity of the syndrome. It contributes in this way, with plans that aim at the physical and mental health of the worker, positively reflecting in the general professional system, such as health, education and many other professions which can be affected by the syndrome.

High rates of burnout are pointed out by the World Health Organization (THE WHOQOL GROUP, 1998) as a social problem of great relevance, which has been investigated in several countries. This data corroborates with the results of the present study because the participants presented significant results in the relation between burnout and quality of life. Although our study finds limitations such as the selection of the non-random sample and the small number of participants when stratification is necessary, we believe increasing knowledge with studies about job satisfaction and burnout is relevant, as this may affect the quality of patient care or teaching process to the student (MYHREN; EKEBERG; STOKLAND, 2013), besides bringing a poor communication with other workers, increasing abandonment rates of work on these employees (MYHREN; EKEBERG; STOKLAND, 2013).

CONCLUSION

The present study emphasized that the low quality of life of the employees can be directly related to the exhaustion and the symptoms associated with the syndrome. These variables can have strong influences on the professional and personal lives of these workers, interfering in the relationships at work and being the cause of personal and family problems (BENEVIDES-PEREIRA, 2012; MASLACH; SCHAUFELI; LEITER, 2001; PALAZZO; CARLOTTO; AERTS, 2012; TOKER; BIRON, 2012; THE WHOQOL GROUP, 1998). When comparing the group with greater vulnerability to burnout with the rest of the sample, there is an apparent discrepancy in the results of quality of life, presenting fewer results in all domains of quality of life.

Attention is needed to observe these factors that affect the worker's physical and mental health. And these problems might be transformed into a social issue, when their consequences are extended to other individuals who relate directly to those professionals affected by the syndrome, resulting in loss of quality of medical care or education.

A relação entre síndrome de *burnout* e qualidade de vida

Resumo

A qualidade de vida é um importante aspecto sobre a saúde física e mental, que pode ser afetada pelo *burnout*. Existem evidências que apontam os efeitos de distúrbios psicológicos, como o esgotamento profissional, associados à baixa qualidade de vida como redutores da motivação e realização profissional. Além disso, o *burnout* influencia em aspectos sociais, físicos, cognitivos e profissionais. Portanto, o objetivo deste estudo foi analisar a vulnerabilidade dos participantes para *burnout* e seus níveis de qualidade de vida. Ademais, comparar a qualidade de vida dos indivíduos mais vulneráveis a essa síndrome com o restante da amostra, de menor vulnerabilidade. Participaram do presente estudo 52 trabalhadores entre médicos e professores. A coleta de dados consistiu na resposta do Inventário Sociodemográfico, Whoqol-Bref e Maslach Burnout Inventory. Os resultados mostraram que 19,2% da amostra total apresentou níveis elevados de *burnout* e esses mesmos participantes também obtiveram escores mais baixos em todos os domínios da qualidade de vida comparados aos demais participantes. Esses problemas podem ser vistos como uma questão social, pois suas consequências, incluindo a perda de qualidade do trabalho e até mesmo em efeitos prejudiciais ao sistema de saúde e educação, se estendem e afetam outras pessoas que se relacionam diretamente com esses profissionais vulneráveis à síndrome.

Palavras-chave

Burnout. Qualidade de vida. Saúde mental. Professor. Médico.

La relación entre el burnout y la calidad de vida

Resumen

La calidad de vida es un aspecto importante sobre la salud física y mental, lo que puede ser afectado por el burnout. Existen evidencias que apuntan los efectos de disturbios psicológicos como el agotamiento profesional asociado a la baja calidad de vida como reductores de la motivación y realización profesional. Además, el burnout influye en aspectos sociales, físicos, cognitivos y profesionales. Por lo tanto, el objetivo de este estudio fue analizar la vulnerabilidad de los participantes para el burnout y sus niveles de calidad de vida. Además, comparar la calidad de vida de los individuos más

vulnerables a ese síndrome con el resto de la muestra de menor vulnerabilidad. Participaron del presente estudio a 52 trabajadores entre médicos y profesores. La recolección de datos consistió en la respuesta del Inventario Sociodemográfico, Whoqol-Bref y Maslach Burnout Inventory. Los resultados mostraron que el 19,2% de la muestra total presentó niveles elevados de burnout y estos mismos participantes también obtuvieron escores más bajos en todos los ámbitos de la calidad de vida comparados a los demás participantes. Estos problemas pueden ser vistos como una cuestión social, pues sus consecuencias, como la pérdida de calidad del trabajo e incluso en efectos perjudiciales al sistema de salud y educación, se extienden y afectan a otras personas que se relacionan directamente con estos profesionales vulnerables al síndrome.

Palabras clave

Burnout. Calidad de Vida. Salud Mental. Profesor de la Escuela. Médico.

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