The Socio-Educational System of the Federal District of Brazil: A Study of Managers' Quality of Life during Burnout.

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Introduction

Burnout is a growing issue in Brazilian organizations due to chronic stress and adverse working conditions, exacerbated by the economic crisis. Workers face increased work overload, shortage of staff, and fear of unemployment. This recurrence of work dissatisfaction raises questions about the factors contributing to high levels of emotional exhaustion among workers and whether professional dissatisfaction and aspects related to the job context impair the quality of life (QOL) of these workers.

A systematic review and meta-analysis of 485 studies with a sample of 267,995 individuals found a strong association between low job satisfaction and mental and psychological problems such as burnout, low self-esteem, sadness, and anxiety. Burnout is the response to prolonged stress and occurs when employees adapt to uncomfortable situations at work. The Guidelines for the Primary Prevention of Mental, Neurological, and Psychosocial disorders show that factors related to the organization can influence the development of burnout, and individual characteristics may be associated with higher or lower burnout rates.

Burnout interferes with institutional, social, and personal levels, leading to increased expenses, employee turnover, and absenteeism. Burnout Syndrome is characterized by emotional exhaustion and personal lack of fulfillment related to feelings of personal and professional inadequacy to the work. Robert Karasek (1985) proposed a two-dimensional theoretical model that related demand and control at work to the risk of becoming ill. Demands are psychological pressures, while control is the interference of organizational institutions with the intellectual and productive autonomy of the worker.

Personal effectiveness and burnout have a negative relationship in the work sphere, with the former being a predictor of personal achievement and the perception of support received from colleagues. New paradigms in the sector affirm that health and disease constitute two continuous processes, and QOL (Quality of Life assessment) can be understood as the perception of one's position in life, culture, value systems, goals, expectations, patterns, and concerns.

Research that correlates burnout, job context, and QOL to health programs evaluation in government departments is still emerging. Studies that address these themes can provide support to managers in drawing plans for the prevention of Burnout Syndrome and quality of life in the job context.

The research hypothesizes that greater institutional control and lack of autonomy of managers will result in more damage to their QOL from the perspective of health and personal accomplishment in the work context. Additionally, managers who occupy higher hierarchical positions have a higher chance of being affected in

their state of health, especially mental health.

The objective of this study was to study the relationships between managers' QOL and factors contributing to the development of Burnout Syndrome in the socio-educational system of the Federal District, Brazil.

Method

The study was conducted in the socio-educational system of the Secretariat of State for Justice and Citizenship of the Federal District, Brazil, with 208 managers who make up the organization chart of the structure of positions. About 180 managers had access to the invitation of participation, and 48 of them answered all the questions completely. It is assumed that Brazilian cultural factors related to the devaluation of the social importance of participation in scientific research may have corroborated the fact that 57 participants did not participate in this research. Three questionnaires (in Portuguese) were employed to evaluate the quality of life of Brazilian managers. The Medical Outcomes Study SF-36 Health Survey was used to evaluate the Brazilian managers' QOL, which includes physical component summery (PCS-36) and mental component summery (MCS-36). The Maslach Burnout Inventory-Human Services Survey (MBI-HSS) was chosen to verify the level of stress, accounting for more than 90% of empirical research. Each item of the MBI corresponds to one of the three dimensions of the Syndrome (Codo & Vasques, 1999), and each scale measures its own unique dimension of Burnout.

The Job Content Questionnaire (JCQ) was applied to analyze the organization of the work. A reduced version of the original questionnaire elaborated by Karasek & Theorell (1990) was used, containing 17 questions: 5 to assess the Demand (D; $\alpha = .63$), 6 to evaluate the Control (C; $\alpha = .69$), and 6 to Support Social (S; $\alpha = .84$). Reliabilities were satisfactory for the JCQ and Burnout correlation, when the item D4 "Do you have enough time to do everything?" was removed. To ensure the anonymity and confidentiality of the participants, the Consent Form was sent, informing about the volunteer's risks, objectives, purposes, and benefits of this study, as well as ensuring that the research team did not have access at any time to the identification of participants and there was no compensation or incentive to participate. The average time to fill all the instruments was approximately 40 minutes.

The invitation to participate in this research was sent by email from the Coordination of the socio-educational system of the Federal District, Brazil, in February and March 2019. The population was validated considering the representativity of the total number of respondents who filled out the research instruments. The data

obtained from the questionnaires by the Lime Survey online platform. In this research, there is no conflict of interest between the authors and the corresponding affiliated institutions.

Data collection and analysis involved correlational analysis, multiple regression analysis, descriptive analyses, and Pearson correlation coefficient verification. Two models were adjusted through regression analysis to confirm if the MBI-HSS and JCQ scales influenced the levels of physical and mental health. The equation $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \varepsilon$ represents the dependent variable of one of the models (PCS or MCS), β_0 represents the intercept of the model, β_1 is the effect of variable X_1 on Y, the same for the other terms where n represents the total number of variables used in the model, and ε represents the residuals, $\varepsilon \sim N(\mu, \sigma^2)$.

Results

The study focuses on the socio-educational system managers in the Federal District, Brazil, analyzing their age, gender, mean age, age range, civil status, monthly income, time in the job position, diagnosis of chronic disease, emotional support, and under psychotherapy. The research was divided into two groups: Group 1 (24 women; 12 men; 39 years; age range: 28-59 years; 23 singles and 13 in a relationship) and Group 2 (24 women; 12 men; 39 years; age range: 28-59 years; 23 singles and 13 in a relationship).

Group 1 managers have hierarchical positions of execution for coordination, planning, and management, with 66% having a monthly income between $1,000 and $1,200, and 33% between $1,300 and $2,000. Half of them work in their respective functions for a maximum of one year, while the oldest is in the same position for three years. In health aspects, 75% do not have a diagnosis of chronic disease, and everyone claims to have some emotional support to deal with problems.

Group 2 managers have hierarchical positions of operational execution for management and advisory, with 61% having a monthly income between $400 and $1,300, and 39% above $1,500. About 36% have at least one chronic illness, and one participant claimed to have no emotional help to deal with problems.

Burnout levels between the two groups were not significant, as there were no significant differences between the MBI measures for Group 1 and Group 2.

Table 1: Burnout for two groups of hierarchical positions, comparing applying Wilcoxon-Mann- Whitney

Measure	Group 1 (*n* = 12)		Group 2 (*n* = 36)		
	-		-		
	x	*SD*	*x*	*SD*	*p*
MBI-EE	43.00	26.74	50.83	31.06	.475
MBI-DP	53.17	26.80	44.72	31.65	.416
MBI-PA	53.25	19.94	46.06	31.98	.424

Do not have significant differences ($p > .01$) between the MBI scales for the Group 1 and Group 2. MBI-EE. MBI Emotional Exhaustion. MBI-DP. MBI Depersonalization. MBI-PA. MBI Personal Accomplishment.

The study compared burnout levels and JCQ scales between 48 groups, with no significant difference observed between those with Burnout Syndrome and those without the Syndrome. Correlations were observed between MBI-HSS, JCQ, SF-36, mental health (MCS), and physical health (PCS) scales. The correlation between MBI-EE and MBI-DP was moderate, indicating an increasing linear trend between these two scales. The correlation between functional capacity (PFz) and PCS was also significant, with lower functional capacity resulting in greater physical health damage. The correlations between MCS and MBI-EE, PCS and MBI-EE, and MCS and JCQ-C presented an inverse correlation, with higher institution control over worker autonomy lowering mental health levels. This confirms the first hypothesis of the study, as shown in Table 5.

Table 2 Degree of each MBI-HSS scale of the participants (n = 48)

Degree	MBI-EE	MBI-PA	MBI-DP
Low	19% (9)	38% (18)	71% (34)
Moderate	10% (5)	12% (6)	0% (0)
High	71% (34)	50% (24)	29% (14)

MBI- EE. MBI Emotional Exhaustion. MBI-PA. Personal Accomplishment. MBI-DP. MBI

Depersonalization.

Table 3 Degree of each MBI-HSS scale of the participants diagnosed with Burnout Syndrome (n = 14)

Degree	MBI-EE	MBI-PA	MBI-DP
Low	7% (1)	79% (11)	43% (6)
Moderate	7% (1)	7% (1)	0% (0)
High	86% (12)	14% (2)	57% (8)

MBI-EE. MBI Emotional Exhaustion. MBI-PA. Personal Accomplishment. MBI-DP. MBI Depersonalization.

Table 4 Pearson Correlation between the scales, using the total sample (n = 48)

Variable	MBI-EE	MBI-DP	MBI-PA	JCQ-D	JCQ-C	JCQ-A
PFz	-.49*	-.38*	.23	.17	-.08	-0,08
RPz	-.57*	-.15	.02	.37*	.05	-0,21
BPz	-.63*	-.37*	.13	.42*	-.13	-0,36*
GHz	-.47*	-.36*	.37*	.30*	-.28	-0,28
VTz	-.75*	-.50*	.42*	.23	-.37*	-0,47*
SFz	-.57*	-.28*	.31*	.16	-.35*	-0,25
REz	-.56*	-.19	.31*	.24	-.19	-0,35*
MHz	-.58*	-.31*	.54*	.07	-.60*	-0,34*
PCS	-.50*	-.35*	.10	.37*	.03	-0,16
MCS	-.53*	-.25	.49*	.06	-.55*	-0,38*

*p<.01. MBI-EE. MBI Emotional Exhaustion. MBI-PA. Personal Accomplishment. MBI-DP. MBI Depersonalization. JCQ-D. Demand. JCQ-C. Control. JCQ-A. Support. PFz. Functional Capacity. RPz. Limitations by Physical Aspects. BPz. Bodily Pain. GHz. General Health. VTz. Vitality. SFz. Social F u n c t i o n i n g . RFz. Limitations by Emotional Aspects. MHz. Mental Health. MCS. Mental Component Summery. PCS. Physical Component Summery.

The study examined the correlations between physical (PCS) and mental (MCS) health levels using Regression Analysis. The MBI-EE scale, which measures emotional exhaustion, was found to be the only variable that significantly influenced PCS levels. This suggests that the two scales are inversely proportional, with each decrease in the MBI-EE scale increasing the level of physical health by one. Other non-significant variables included MBI-DP and JCQ-D.

On the other hand, MBI-EE and JCQ-C were significant and inversely proportional, with each decrease in the level of control of the institution under worker's autonomy increasing mental health by one unit. Other non-significant variables included MBI-PA and JCQ-A. The results ratified the first hypothesis of the research, indicating that mental health levels are influenced by the level of control under worker's autonomy.

Table 5 Regression analysis using PCS as dependent variable (N= 48, R^2 = 0.289)

Variable	$\hat{b}$	Std. Error	b	Std. Error	t(44)	p
Intercept			33.40	1.85	18.03	<.01
MBI-EE	-0.37	0.16	-0.04	0.01	-2.20	0.03
MBI-DP	-0.10	0.15	-0.02	0.03	-0.68	0.49
JCQ-D	0.17	0.14	0.08	0.06	1.18	0.24

MBI- EE. MBI Emotional Exhaustion. MBI-DP. MBI Depersonalization. JCQ-D. JCQ Demand.

Table 5 Regression analysis using MCS as dependent variable (n = 48, R^2 = 0.479)

Variable	$\hat{b}$	Std. Error	b	Std. Error	t(43)	p
Intercept			26.65	1.58	16.80	<.01
MBI-EE	-0.35	0.13	-0.03	0.01	-2.67	0.01
MBI-PA	0.22	0.13	0.03	0.01	1.63	0.11
JCQ-C	-0.30	0.13	-0.13	0.05	-2.23	0.03
JCQ-A	-0.06	0.13	-0.02	0.04	-0.44	0.66

MBI- EE. MBI Emotional Exhaustion. MBI-DP. MBI-PA. MBI Personal Accomplishment. JCQ- C. JCQ Control. JCQ-A. JCQ Support

Discussion

This research explores the relationship between managers' Quality of Life (QOL), Burnout Syndrome, and job context in the socio-educational system of the Federal District, Brazil. The study highlights the importance of considering QOL planning for public service workers, especially those who perform care-related tasks with high levels of psychological, emotional, and work overload. The Brazilian socio-educational reality is linked to high complexity of functions, responsibility in task performance, emotional exhaustion, lack of material resources, and precarious work conditions.

The job demands-control model, as confirmed by Karasek et al. (1981), confirms the first hypothesis that control hinders the autonomy and decision-making of managers, decreasing their mental health level (MCS). The MBI-EE and JCQ-A are significant factors related to mental health level (MCS), revealing an inversely proportional trend. With each decrease in the level of control of the institution under the worker's autonomy (JCQ-C), mental health increases by one unit.

The second hypothesis was not confirmed due to the fact that the results of the correlations between Burnout (MBI), QOL (SF-36) and job context (JCQ) were similar regardless of the position occupied. The research may rely on previous findings that highest rates of Burnout are correlated to work and institution characteristics. In the socio-educational system of the Federal District, Brazil, bureaucracy, lack of autonomy, inefficient communication, and physical environments with risk factors contribute to the development of high levels of emotional exhaustion among managers.

The results support the idea that institutions support the development of Burnout and negatively impact the state of physical and mental health of workers due to the characteristics correlated with Burnout. The lower the level of control of the institution under the autonomy of managers, the higher the level of mental health (also according to the first hypothesis). Dissatisfaction with personal accomplishment and aspects related to the work context affect the QOL of these managers.

The research suggests that a proactive attitude towards the health of managers is crucial, as the benefits are greater when trying to avoid it. To promote a healthy QOL in the context of work, the "quality of life photograph" from a health perspective is paramount. This study may provide subsidies for the implementation of a public health program for professionals working in government entities, especially those performing care-related tasks with high levels of psychological, emotional, and work overload.

However, the research has limitations, such as the absence of personality variables and translation of measures. Future research should analyze the correlation between personality types of managers and factors to describe individual Burnout rates and the specific features and details of tasks for respective functions shown in Groups 1 and 2.

Conclusion

The study investigates the link between managers' Quality of Life (QOL) and the development of Burnout Syndrome in the Federal District, Brazil. Results show high emotional exhaustion among managers, low mental health, and high organizational control. The study suggests the need for government agencies to assess institutional characteristics and work factors affecting managers' QOL. The research aims to emphasize the importance of health prevention policies, encouraging care for managers, and valuing the quality, efficiency, and effectiveness of public service.

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