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Management of Stress, Pleasure, Suffering and Burnout at Work

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This study sought to identify and analyse the relationships between burnout syndrome, occupational stress and pleasure and suffering at work from young Brazilian workers' perspective. The research was conducted with a probabilistic sample of younger employees living in São Paulo, Brazil, who returned 493 valid questionnaires. The data were submitted to exploratory factor analysis, followed by structural equation modelling. The results highlight stress symptoms' influence on defensive strategies, which in turn directly enhance pleasure and reduce suffering at work. Pleasure and suffering are both positively and negatively related to burnout dimensions.

Keywords: Burnout syndrome, Occupational stress, Organisational behaviour, Pleasure and suffering at work, Young worker

Introduction

The difficulties young people experience in terms of insertion and inclusion in the labour market tend to promote fragmented work experiences, which are closely related to discontinuity in professional development. Discontinuity can hinder younger individuals' immersion in roles related to adulthood, undermining the formation of their personal and professional identity through individualisation (i.e. becoming an independent person). These uncertain conditions can imply different types of pressures in young people's daily lives, which subject them to occupational stress.²

The literature on this topic reports that how individuals perceive their physical and mental stress symptoms and react to them can vary widely. If workers have successful personal coping strategies, these individuals can deal well with stressful situations and regain their inner harmony and experience pleasure at work. If not, the sensation of being under pressure and/or being dissatisfied may cause suffering.^{3,4} In this case, manifestations of syndromes and diseases, such as panic, burnout and depression, can be intensified in personal and professional spheres of life.⁵

The strategies workers use to combat and defend themselves against perceived stress, include, and time management.^{6,7} Studies of burnout syndrome have usually analysed the dimensions of emotional exhaustion, depersonalisation and the absence of personal achievement,⁸ with the latter being a reflection of the previous two symptoms.⁹ Scientific studies on young workers are scarce in the world, and Brazil is no exception; the same occurs with research with integrated models in the field of organizational behavior, hence the interest in carrying out this study.^{6,9} In view of these findings, the following hypotheses were developed for the present research:

among others, social support, hobbies, rationalisation

- H¹: The physical and mental symptoms emphasised by individuals directly influence their combat and defence strategies against perceived stress.
- H²: Strategies used to combat perceived stress have a direct effect on pleasure and an indirect effect on suffering at work.
- H³: Pleasure at work has a negative impact on suffering at work.
- H⁴: Pleasure at work has a differentiated influence on burnout dimensions.
- H⁵: Suffering at work has a differentiated influence on burnout dimensions.
- H⁶: Regarding burnout dimensions, emotional exhaustion directly affects depersonalisation and indirectly affects personal realisation, with the latter also being affected by depersonalisation.

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Materials and Methods

The field research was carried out among young Brazilian workers in São Paulo, Brazil. Brazilian law defines this category as workers between 14 and 24 years of age. ¹⁰The survey questionnaire had four sections, as suggested by Paiva. ⁹The first part focused on collecting socio-demographic, personal and professional data, while the second contained scales assessing mental and physical symptoms (Likert scale, from "1 – "I totally agree" to "6 - I totally disagree"), and combat and defence strategies against perceived stress(from "1 – never used by me" to "6 – always used by me"). The third section comprised a scale evaluating pleasure and suffering at work (from "1 – never to "5 – always"), and the last set of items covered burnout dimensions (from "1 – never" to "5 – daily").

The sample size calculation indicated that a minimum of 362 valid questionnaires were needed, with a 95% confidence interval and 5% margin of error. A total of 766 questionnaires were collected, but, after outliers and those with missing data were removed, only 493 questionnaires were considered valid and submitted to analysis. Most of the sample was female (59.8%), aged between 18 and 19 years (54.5%), single marital status (96.3%), complete high education (45.7%), incomplete higher school education (37.8%), and non-white skin colour (52.9%). Professionally, most participants work in banks, financial institutions or credit agencies (28.1%). The average remuneration recorded among respondents was R\$758.05, about 160 euros. The data processing started with exploratory factor analysis (EFA), followed by structural equation modelling (SEM). These multivariate data analysis techniques were used to adjust the variables in the initial conceptual model. An analysis was also conducted of simultaneous dependency relationships, and a series of multiple regressions were separately estimated in order to construct and validate a causal structural model.

The EFA considered the following parameters for all variables: values generally above 0.5, a Kaiser-Meyer-Olkin test result above 0.6, an accumulated variance value above 60% and a Cronbach's alpha value above 0.5. The SEM parameters were set as a convergent validity value above 0.5; a discriminant validity value, with Chin's criteria, above 0.6; a discriminant validity value, with Fornell and Larcker criteria, above 0.7; a Cronbach's alpha value above 0.7 and a compound reliability value above 0.7. In addition, a Pearson's coefficient of

determination (R^2) value below 0.02 was considered a negligible effect, between 0.02 and 0.13 a small effect, between 0.13 and 0.26 a mean effect and above 0.26 a large effect. Finally, the parameters included a predictive relevance (Q^2) value above 0.0, while effect size (f^2) values below 0.02 were considered a negligible effect, between 0.02 and 0.15 a small effect, between 0.15 and 0.35 a mean effect and above 0.35 a large effect.

Results and Discussion

The EFA results were used to construct the measurement model, reducing the number of variables from 81 to 62 and dimensions from 13 to 12. The modified model highlighted that the construct of mental symptoms of stress—depicted in the literature as one-dimensional—needs to be subdivided into two dimensions: one focused on dilemmas related to problem solving and the other on depressive situations. Notably, only the second dimension received support from the SEM results, which suggests that mental symptoms of stress concentrate around depressive situations.

The construct of defence and combat strategies for dealing with perceived stress – previously presented by researchers as having four dimensions – was subdivided into only two: social support and time management. However, the first dimension also did not receive support from the SEM results. The EFA results – excluding dimensions that were removed after the SEM – are presented in Table 1.

The adjusted measurement model thus consisted of 10 constructs and a total of 62 variables. In Table 2 given the dimensions' convergent validity (i.e. STROKE), for which all values are higher than 0.600, indicating that the model offers a satisfactory solution. Cronbach's alpha was used to measure the model's internal consistency, in this case having values higher than 0.700, while the composite reliability values are all greater than 0.800, as recommended by the relevant literature. Discriminant validity was attested by both criteria, with results above the limits stipulated as satisfactory.

Having confirmed the model's discriminant validity, the final adjustments could be made to the measurement model. Next, the structural model was analysed. In Table 2 above, the R^2 results indicate two exogenous dimensions (i.e. MSS and PS), three dimensions with small effects (i.e. TM, PFE and PPF), two with medium effects (i.e. SLR and BPF) and three with large effects (i.e. SPB, BD and BEE).

			- EFA Results			
Constructs	Dimensions	Variables	Communality	Cronbachs Alpha	KMO	Variance
Mental Stress	MSDS - Depressive	V2	0,653	0,705	0,635	65,999
Symptoms	situations	V8	0,724			
		V12	0,562			
Physical Symptoms	PS – Physical symptoms	V15	0,607	0,841	0,789	68,009
of Stress		V16	0,768			
		V17	0,659			
		V18	0,686			
Defense strategies and	TM – Time management	V24	0,703	0,691	0,759	64,580
fight against stress		V25	0,630			
		V28	0,526			
Pleasure and suffering at	PFE – Freedom of	V30	0,583	0,892	0,944	70,825
work	expression	V31	0,725			
	•	V32	0,716			
		V33	0,636			
		V34	0,562			
		V35	0,533			
		V36	0,690			
	PPF – Professional	V37	0,696	0,946		
	fulfillment	V38	0,724	0,7 .0		
		V39	0,710			
		V40	0,769			
		V41	0,727			
		V42	0,766			
		V43	0,734			
		V44	0,691			
		V45	0,559			
	SPB – Professional	V46	0,668	0,927		
	Burnout	V47	0,728	0,727		
	Burnout	V48	0,748			
		V49	0,695			
		V50	0,782			
		V50	0,732			
		V51 V52	0,607			
	SLR – Lack of Recognition	V54	0,646	0,949		
	SER – Lack of Recognition	V55	0,845	0,747		
		V56	0,835			
		V57	0,844			
		V58	0,829			
		V59	0,786			
		V60	0,735			
D	DDE Danson I Enletterent	V63	0,566	0.007	0,916	63,841
Burnout	BPF – Personal Fulfillment		,	0,807	0,910	03,641
		V64	0,724			
		V65	0,661			
	DEE E .: 1	V66	0,647	0.011		
	BEE - Emotional	V69	0,696	0,911		
	Exhaustion	V70	0,640			
		V71	0,703			
		V72	0,602			
		V73	0,647			
		V74	0,713			
	DD D " "	V76	0,666	0.050		
	BD – Depersonalization	V75	0,580	0,859		
		V77	0,632			
		V78	0,528			
		V79	0,637			
		V80	0,551			
		V81	0,659			

Table 2 — Quality indices of adjustment of the measurement model – SEM							
Dimensions	AVE	Composite Reliability	Cronbach's Alpha	\mathbb{R}^2	Q^2	f^2	
MSDS	0,623	0,830	0,704	0,000	_	0,265	
PS	0,668	0,889	0,842	0,000		0,418	
TM	0,652	0,849	0,735	0,033	0,005	0,307	
PFE	0,612	0,917	0,894	0,058	0,030	0,478	
PPF	0,702	0,955	0,947	0,057	0,039	0,624	
SPB	0,696	0,941	0,927	0,303	0,209	0,594	
SLR	0,749	0,960	0,952	0,249	0,180	0,679	
BD	0,611	0,887	0,841	0,570	0,335	0,416	
BEE	0,654	0,930	0,912	0,484	0,312	0,536	
BPF	0,630	0,872	0,809	0,234	0,134	0,384	

The model's predictive validity (i.e. Q^2) measures the structural model's similarity with what is expected of it. Based on the existing theories, the inference was made that all dimensions contribute to explaining the observed phenomenon. The final results show that two dimensions present medium mean effects (i.e. f^2) (i.e. MSS and TM) and eight dimensions reveal large effects (i.e. PS, PFE, PPF, SPB, SLR, BD, BEE and BPF), supporting the conclusion that all the dimensions are important components of the final adjusted structural model. After the model's goodness of fit was confirmed, the values of the path coefficients (Γ) and Student's t-tests (test that measures significance of the path coefficients¹¹) were calculated. These are all higher than 1.96, which was considered satisfactory (see Table 3).

The results for the Γ confirmed the hypotheses. The first hypothesis posited that the symptoms of physical and mental stress perceived by the respondents would have a direct influence on their combat and defence strategies. The results indicate that the two categories of symptoms have an impact on only one type of strategy, young workers' time management. Their ability to organise varied activities appears to be the key to dealing with the pressures of daily life.

However, the more these workers perceive themselves as trapped in depressive situations, the less effective they are at organising their time. Physical symptoms directly affect young employees' capacity to organise, which would normally counterbalance mental symptoms' effects, contribute to more effective time management and have a positive impact on both dimensions of pleasure at work. Thus, the second hypothesis was confirmed with regard to combat strategies' positive effect on perceived stress's tendency to overshadow pleasure at work, given that significant causal relationships were observed only for freedom of expression and professional achievement.

Table 3 — Path coefficients (Γ) and Student's t-test of the adjusted model

Causal relationships	Student's t-test	Path coeficients
$MSDS \Rightarrow TM$	3,63	-0,189
$PS \Rightarrow TM$	2,75	0,165
$TM \Rightarrow PFE$	5,02	0,241
$TM \Rightarrow PPF$	5,01	0,239
$PPF \Rightarrow SPB$	12,71	-0,551
$PPF \Rightarrow SLR$	10,50	-0,499
$PPF \Rightarrow BD$	3,07	0,167
$PPF \Rightarrow BEE$	2,59	-0,127
$PPF \Rightarrow BPF$	3,26	0,232
$PFE \Rightarrow BD$	2,59	-0,129
$PFE \Rightarrow BPF$	2,50	0,132
$SLR \Rightarrow BEE$	8,03	0,456
$SPB \Rightarrow BPF$	2,30	-0,145
$SLR \Rightarrow BEE$	3,47	0,194
$BEE \Rightarrow BD$	29,41	0,786
BD => BPF	1,96	-0,102

No dimension of suffering at work is affected by either type of strategy. Although no causal relationships were detected between freedom of expression and the two dimensions of suffering, a lack of professional achievement proved to be the indirect cause of suffering at work. That is, more recognition and less professional exhaustion reinforce the moderating role of achieving personal goals at work regarding suffering at work.

The third hypothesis focused on pleasure's inversely proportional influence on suffering at work. This relationship was confirmed since only the dimension of professional achievement has a negative impact on both dimensions of suffering, namely, professional exhaustion and a lack of recognition. Freedom of expression, in contrast, has a non-significant impact on work-related suffering, demonstrating that this type of pleasure at work does not alleviate any suffering.

The fourth hypothesis dealt with the differentiated influence of pleasure at work on burnout dimensions. This connection was confirmed to the extent that professional achievement has a significant negative impact on emotional exhaustion (i.e. reducing it). Professional achievement further has a positive effect on depersonalisation and personal achievement, which encourage an affective disconnect from work that promotes young workers' self-realisation. However, freedom of expression contributes negatively to depersonalisation, counterbalancing this affective detachment, but positively affects personal fulfilment (i.e. expanding it).

The fifth hypothesis suggested that suffering at work has a differentiated influence on burnout dimensions. This link was also confirmed since insufficient recognition and professional exhaustion positively affect emotional exhaustion, thereby strengthening the latter's effects on the other two dimensions of burnout. Professional exhaustion, however, negatively affects personal achievement (i.e. reducing it). These results clarify how, for the respondents surveyed, suffering at work can act both directly and indirectly on burnout dimensions, especially given the results related to the sixth hypothesis.

The sixth hypothesis was also confirmed as emotional exhaustion has a direct influence on depersonalisation, but no causal relationship with performance was found. These results indicate that young workers' mental fatigue contributes to suppressing affective bonds with work overall yet does not prevent or hinder satisfaction with daily work realities. Depersonalisation, in turn, influences these younger individuals' personal realisation. These findings corroborate those reported for a study of burnout and retaliation among young people in another region of Brazil.⁹

Conclusions

The current scenario for the young workers includes personal and professional difficulties in dealing with daily work situations. These challenges indicate that these young people need to be made more aware of broader strategies that can help them deal with day-to-day stress. In addition, more investment should be made in encouraging younger employees to pay greater attention to personal time management both inside and outside work environments. Experts in this area must also reflect on the need for human resource management policies and practices that are more consistent with these individuals' characteristics in order to enhance

their stress management, increase their pleasure at work and minimise their suffering, as well as addressing various burnout dimensions.

This study's findings contribute to deepening the existing knowledge about the relationships between the constructs in question. Moreover, the results clarify further how these connections manifest themselves in a specific group of workers who are young and thus should have more physical and mental energy to deal with daily work realities. However, these individuals do not have enough experience to develop and implement more effective combat and defence strategies regarding stress. In times of precarious and dehumanised work, these characteristics may be overlooked in the context under study.

Given these valuable contributions, this research's limitation to a sample of young Brazilian workers suggests that future studies should include other regions of Brazil (i.e. focusing on country-level dimensions and economic and cultural differences). In addition, researchers could apply the proposed model to young workers in other countries in order to identify shared and contrasting traits. The results may prove useful to those seeking to improve human resource management policies and practices within organisations, as well as helping to develop more inclusive public policies that consider the weaknesses, capacities and competencies of this important group of workers. Research applying qualitative approaches could also be useful to identify factors underlying young people's perceptions, as these individuals can become more productive when they are fulfilled professionally and personally.

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References

- 1 Arnett J, New horizons in emerging and young adulthood, in *Early adulthood in a family context*, by A Booth & N Crouter, Springer, New York, 2012, p. 231–244.
- 2 Briones-Peñalver, A J, Santos José António C, Bernal Conesa J A & Santos M C, Innovation management and strategy, J Sci Ind Res, 77(8) (2018) 437–441.
- 3 Tameirão D C M & Nunes S C, The feminisation of medical careers in Brazil and work-family conflict, *Tour Manage Stud*, **15(2)** (2019) 47–55.
- 4 Bernal-Conesa J A, Nieves-Nieto C, Briones-Peñalver J A & Santos José António C, Corporate social responsibility and sustainability's effect on the relationship between

- technological companies' stakeholders and performance, *J Sci Ind Res*, **77(10)** (2018) 570–574.
- 5 Turkoglu N & Dalgic A, The effect of ruminative thought style and workplace ostracism on turnover intention of hotel employees: the mediating effect of organizational identification, *Tour Manage Stud*, **15(3)** (2019) 17–26.
- 6 Ferreira J, Paiva K, Santos J & Dutra M, Estresse, retaliação e percepção de injustiça nas organizações: proposição de modelo teórico integrativo, *Cad EBAPE BR*, **16(4)** (2018) 774–787.
- Paiva K C M, Irigaray H A R, Macedo M B, Ferreira Mageste G S & Dutra M R S, Gender and experiences of retaliation, *Tour Manage Stud*, **14(2)** (2018) 53–62.
- 8 Skaalvik E & Skaalvik S, Dimensions of teacher burnout: relations with potential stressors at school, *Soc Psych Educ*, **20(4)** (2017) 775–790.
- 9 Paiva K, Torres T, Pereira J & Silveira V, Burnout and retaliatory attitudes: a study with young Brazilian workers, *Tour Manage Stud*, 14(4) (2018) 72–83.
- Brasil, Decreto-Lei n. 9.579, Dispõe a temática do lactente, da criança e do adolescente e do aprendiz, (2018), Retrieved 8.11.2019 from http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2018/Decreto/D9579.htm#art126.
- 11 Hair-Jr J, Black W, Babin B & Anderson R, *Multivariate Data Analysis*, Pearson, Harlow (2014).