



## Burnout and retaliatory attitudes: a study of young Brazilian workers

### *Burnout e atitudes retaliatórias: um estudo com jovens trabalhadores brasileiros*

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#### Abstract

This study sought to analyse the relationship between burnout variables and retaliatory attitudes in young workers. A descriptive case study was conducted based on a quantitative approach, focusing on young people in two Brazilian state capitals: Curitiba in Parana, and Porto Alegre in Rio Grande do Sul. A three-part questionnaire was administered, and the final sample contained 526 valid survey forms. The data analysis used exploratory factor analysis and structural equation modelling. Emotional exhaustion is related to individuals' feelings of indignation at perceived injustices and perceptions of justice. Low personal accomplishment is negatively related to judgment of retaliation. The latter finding contributes significantly to the literature, which has few articles linking these two constructs. Organisations can use the results to improve how they deal with younger workers and their specific burnout and retaliatory attitudes, thereby improving quality of life for not only all workers on the job but also young people specifically.

**Keywords:** Burnout, retaliatory attitudes, young workers, perceived injustice, emotional exhaustion.

#### Resumo

Este estudo teve como objetivo analisar como variáveis de *burnout* e atitudes retaliatórias estão relacionadas em jovens trabalhadores. Trata-se de um estudo de caso descritivo, com abordagem quantitativa, com foco em jovens de duas capitais brasileiras (Curitiba / PR e Porto Alegre / RS). Um questionário de três partes foi aplicado, e a amostra continha 526 respostas válidas. Para a análise dos dados, foram realizadas análises fatoriais exploratórias e modelagem de equações estruturais. O esgotamento emocional está relacionado ao sentimento de indignação diante das injustiças percebidas e da percepção de justiça. A baixa realização pessoal está negativamente relacionada ao julgamento de retaliação. Este artigo contribuiu para a literatura, pois ainda não existem muitos artigos que liguem os dois construtos. Além disso, as organizações podem usar os resultados para lidar melhor com os trabalhadores mais jovens e suas peculiaridades em relação às atitudes de *burnout* e retaliação, melhorando a qualidade de vida no trabalho para seus trabalhadores em geral e para os jovens em particular.

**Palavras-chave:** Burnout, atitudes retaliatórias, jovens trabalhadores, injustiça percebida, exaustão emocional.

#### 1. Introduction

Over the years, profound changes have been observed in the working world that permeate globalization, greater competitiveness and a reduction in the number of jobs. Such changes have a significant impact on labour relations (Mendonça & Mendes, 2005). Complementarily, Souza, Trigueiro, Almeida, and Oliveira (2010) stated that increased stress levels is a complicated reality to avoid in the modern world. Workers in the complex organisational environment suffer impacts that can cause damage to their physical and mental health, and therefore burnout syndrome. Thus, the present article sought to analyse the relationship between burnout and retaliatory attitudes, which may emerge in response to the context of pressure and stress of the globalised world of work, especially with young workers who have particularities in dealing with the pressures of the current labour market.

Burnout is a psychological syndrome that emerges in response to persistent experiences of interpersonal stress at work. It is

characterized by exhaustion, which refers to the exhaustion of physical and emotional resources, the feeling of cynicism (or depersonalization), which represents negative or totally detached attitudes towards the various aspects of work, and the feeling of ineffectiveness and lack of personal fulfilment, where the individual considers himself/herself incompetent and unproductive (Maslach, Schaufeli, & Leiter, 2001).

In this sense, organisations pressured to adapt to the competitive environment can direct their actions so that the stress level of workers increases as they face injustice and suffering, and this process can trigger the development of counterproductive attitudes by workers, such as retaliation (Mendonça & Mendes, 2005).

According to Mendonça and Tamayo (2004), the organisational context is a prime factor in leading individuals to retaliation. Retaliation is seen in various spheres of society; however, in the organisational context, it is conceptualised as a reaction to the injustices experienced by workers.



These issues may manifest themselves differently among groups of workers, according to aspects of diversity, such as gender, skin colour, religious orientation, sexual orientation, and generations, among others. In the present study, the target groups are young workers. Conceptually, the term 'young workers' characterises workers in the 15–24 age range (Tucker & Loughlin, 2006). This group of workers is seen as a 'special population' (Barling, Kelloway, & Frone, 2005), a paradigmatic study case, mainly because of its idiosyncrasies (Barling et al., 2005; Tucker & Loughlin, 2006) and the precarious working contexts in which they generally operate (Tucker & Loughlin, 2006). Younger groups should be studied separately because of the different reality they experience in the labour market in relation to previous generations.

Given the above, the question that guided the research presented in this article was: 'What are the relations between the dimensions of Burnout Syndrome and the retaliatory attitudes of young workers?' The objective of this study was to analyse the relationship between burnout and retaliatory attitudes of young Brazilian workers, specifically those assisted by the Professional Social Teaching Association (Espro) in Curitiba (PR) and Porto Alegre (RS). To achieve this main goal, the specific goals defined were: 1) to describe how the variables of burnout and the retaliation attitudes of young workers are configured; for that, exploratory factor analyses were carried out in both scales and, posteriorly, the descriptive data of the samples were presented; 2) to describe the results of the structural equation modelling performed with the data set, indicating the observed relations of causality.

Studies on burnout have become important because they can support possible preventive interventions in relation to mental health, through the promotion of quality of life at work, generating both individual gains and gains for organisations as a whole (Bernd & Beuren, 2017). With regard to retaliatory attitudes, empirical studies in the organisational sphere have neglected retaliatory behaviour, with more studies being about injustice at work (Mendonça & Tamayo, 2004). However, retaliatory attitudes increase costs for organisations and yet the number of studies on the subject remains low (Maia & Bastos, 2011).

In addition, young workers present peculiar behavioural characteristics in the performance of their work activities and are prone to exposure to the damage caused by stressful factors that, if persistent, lead to burnout syndrome (Souza, Helal, & Paiva, 2017). Whereas there are few studies involving young workers, this study intends to contribute by increasing the knowledge regarding them, mainly by relating both phenomena (burnout and retaliatory attitudes), in an integrated way, since no such articles were found in the two main Brazilian bases of articles in the field of management (ANPAD and SPELL).

Moreover, the data can contribute to a knowledge of this reality, enabling its recognition by the social actors involved (Espro, companies and the young people themselves) and the development of strategies to deal with possible impacts of the

phenomena in focus, aiming to contribute to the well-being of the youth observed and to the effectiveness of the organizations for whom they work.

## 2. Burnout Syndrome

Burnout syndrome was first studied by Freudenberg (1974) in a clinical perspective and in its conception, burnout means to wear out or to be exhausted due to excessive demands of energy, strength or resources and the individual becomes inoperative in the organisational context. 'Burnout is an expression originated in the English language and means "to burn" or "to destroy by fire from the outside in" (Gianasi & Borges, 2009, p. 298); it refers to what has ceased to function due to absolute lack of energy.

Burnout syndrome has become a worldwide disease that affects workers and entails costs to companies in terms of decreased productivity, poor performance and impacts on physical and mental health (Tourigny, Baba, Han, & Wang, 2013). With the intent to evaluate burnout syndrome in workers, Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI), an instrument in which the following dimensions were identified: emotional exhaustion; depersonalization; and reduction of personal fulfilment.

Emotional exhaustion refers to the feeling of overload and depletion of emotional resources. Such a dimension is considered basic in relation to burnout stress since the individual does not have the strength to face day-to-day work. In turn, the depersonalization dimension is a negative attitude that is insensitive or detached regarding other people. It usually arises in response to the overload of emotional exhaustion, and initially is a form of self-protection. Depersonalization is related to the interpersonal component of burnout. Finally, the reduction of personal fulfilment refers to the decrease in the individual's perception of his or her own competence and productivity. The individual feels unable to attend to clients and demands, and self-imposes failure. This component represents the self-assessment dimension of burnout (Maslach & Goldberg, 1998).

In Brazil, Carlotto and Câmara (2007) analysed the reliability and validity of the Maslach Burnout Inventory. For that, a study was conducted with 655 workers. The results of the factorial analysis were significant and confirmed the three dimensions obtained in the original inventory, which explained 55.69% of the total variance of the responses. The authors concluded that the Brazilian version of the instrument presented adequacy in terms of consistency and factorial validity.

In the literature, there are several studies about burnout, and many seek to analyse the syndrome in the field of education, both in relation to the employees of the sector and in relation to the students.

In the case of higher education teachers, Jeunon, Correa, Duarte, and Guimarães (2017) found a low level of propensity for the development of burnout syndrome, since the teachers



studied feel overloaded, but not to the point of developing the syndrome. Only 2% of the sample showed a considerable level of exhaustion. With regards to teachers in the public and private high school network, there was a medium level of feelings of depersonalization, emotional exhaustion and professional achievement, and comparatively, private school teachers presented lower levels of burnout than teachers of public schools, however, the difference was not statistically significant (Almeida, Silva, Centurion, & Chiuzi, 2011).

Using a version of the Maslach Burnout Inventory specified for educators, Szigeti, Balázs, Bikfalvi e Urbán (2016) analysed the relationship between burnout and symptoms of depression in teachers. The authors performed several confirmatory factor analyses in eight models. However, the most suitable was bifactorial, with general burnout and, on the other hand, three specific factors: emotional exhaustion; depersonalization; and personal accomplishment. The analysis showed that gender and age were not related to burnout, but depressive symptoms and excessive commitment were significantly related to it, and excessive commitment was related to emotional exhaustion.

The relationship between burnout and quality of life in the work of preschool teachers was studied by Koulierakis et al. (2018), who found from the data collected elevated levels of burnout and the most significant factor was emotional exhaustion. The highest levels of burnout were observed in people with permanent and open-ended work contracts, widows, the eldest, the most experienced and educated and those with health issues. In addition, the low quality of life at work is linked to a higher burnout level.

In another study with students of a master's degree in administration, it was noticed that the women tend to present a greater sensation of physical and mental exhaustion. Individuals in the age group of 21 to 25 years of age seem to feel the effects of emotional exhaustion more than others. Possibly this fact is due to the difficulty of youth in dealing with situations of stress. In the personal fulfilment dimension, those who are married, of male gender and older individuals were more accomplished in their personal lives and studies (Souza et al., 2010).

A study accomplished with employees of a federal public institution verified the negative, moderate and significant relationship between burnout and the perception of levels of organisational justice. The relationship verified between the perception of injustice and burnout syndrome leads individuals to feel discouraged about being in the organisation, so they find in the retraction a defence of the tension mechanisms that may be physical or emotional (Schuster, Dias, & Battistella, 2014).

Another traditional research agenda on burnout is about health profession, especially nursing. According to Lima, Farah and Bustamente-Teixeira (2018), this is due to the fact that such a group of workers are more prone to the syndrome because they deal in their daily lives with people and suffering.

Primary health-care professionals were analysed and the prevalence of the syndrome was identified in 51% of the sample, emphasising that the index was higher among nursing professionals.

From the perspective of nursing students, Martins et al. (2017) aimed to identify situations inducing stress and burnout in nursing students in clinical teaching and to analyse the influence of sociodemographic and academic variables in both constructs. The results showed that nurses are vulnerable to stress. However, the burnout rates were low. The academic and sociodemographic variables with statistical significance in burnout were gender, age and room class time.

Thus, the study by Ayaz-Alkaya et al. (2018) aimed to analyse the effect of nursing internship on professional commitment and burnout of senior nursing students. After the nursing internship, 77.2% were satisfied with studying nursing, 83.2% were satisfied being a senior student, 55.4% did not have any intention to change their profession, 81.2% wanted to work as nurses, 34.7% were found to experience burnout before the internship and 43.6% after the nursing internship. The study showed that after the nursing internship, burnout and professional commitment levels of the students increased.

Analysing another group of workers, Bernd and Beuren (2017) found that audit professionals feel greater impact in relation to the symptoms of emotional exhaustion and depersonalization than professional achievement when subjected to constant stress situations. The authors indicated the need for greater attention to situations that lead to emotional exhaustion, since this factor is considered as the main element in the development of the syndrome and the research showed moderate- and high-level tendencies in burnout.

Specifically in the case of young workers in China, results have shown that the job variety has a negative relation with job burnout; job authority has a negative relation with job burnout; job variety has a positive relation with job performance; job authority has a positive relation with job performance; job burnout has a negative relation with job performance (Nie & Zhang, 2011, p. 212). The authors concluded that most of the young people participating in the study are service industry employees and are at the entry level of organizations, so their work does not change much and they do not have much authority to make decisions. Usually, they must face repetitive tasks in their daily work and accept orders from their superiors without much freedom to decide work arrangements. Because of the job characteristics of young employees, they will feel dissatisfied with their jobs (Nie & Zhang, 2011).

When the individual perceives injustice in the work environment, they tire in such a way that they become aggravated to the point of it causing exhaustion and emotional depletion, impacting on physical and psychological health. Under these conditions, the worker experiences suffering to a certain extent, since it is mediated by many strategies, one of



which is retaliation (Mendonça & Mendes, 2005).

### 3. Retaliatory Attitudes

In general, research in the area of organisational behaviour advocates positive and well-considered actions in the dynamics of organisations and neglects studies on dysfunctional behaviours including retaliation (Mendonça, Flauzino, Tamayo, & Paz, 2004).

The classic concept of retaliation refers, therefore, to the law of retaliation, the old popular saying of 'an eye for an eye, a tooth for a tooth', which means revenge, i.e., what goes around comes around (Mendonça & Tamayo, 2004, p. 118). Organisational retaliation refers to reactions on the part of workers as opposed to perceived injustice at work (Skarlicki & Folger, 1997; Mendonça & Tamayo, 2004).

In the present study, two organizational retaliation measures will be used: Scale of Perception and Judgment of the Organizational Retaliation (EPJR), constructed and validated by Mendonça et al. (2004) and the Attitude Measurement in Relation to the Organizational Retaliation (MARO), constructed and validated by Mendonça and Tamayo (2003). Such measures have contributed by encompassing perceptual, evaluative, affective and conative dimensions of retaliation and by emphasising the need to consider the context in which retaliatory attitudes take place. The EPJR consists of 15 items and has two subscales: the perception of retaliation and the judgment of retaliation. In turn, the MARO scale has an attitudinal perspective, where a situation is presented and the respondent should position himself/herself in relation to the case described. In this measurement, two factors are evaluated: the affective component and the conative component (Mendonça, 2008).

In a study developed by Maia and Bastos (2011), the most frequent retaliatory behaviours found were: 'to produce below their capacity', 'to spend more time in recess than allowed' and 'to drag one's feet'. On the other hand, the less recurrent ones were: 'doing the service badly on purpose', 'changing the way of doing things in order to harm the organisation' and 'deliberately disrupting the workplace'. In addition, it has been observed that more experienced individuals tend to perceive retaliatory behaviours less frequently.

Already young workers feel indignant at perceived injustices, they are not prone to retaliate and most do not observe retaliatory actions against injustices, and beyond that, they find it very unfair when retaliation occurs (Paiva, Fujihara, & Reis, 2017). This result is predictable due to the agreement of this group of individuals in relation to the values in the analysed levels, and because they are young people, a public that generally has little experience in the labour market and in life.

Still in the case of the young workers, Paiva and Rocha (2016) found evidence that the perception of retaliatory attitudes impacts the affective and normative levels of commitment, so it can be inferred that a compromised individual would be less

likely to present retaliatory attitudes against the organization and simultaneously the perception of unjust situations diminishes their commitment, especially in the affective dimension, and the propensity to react with a retaliatory attitude when observing a situation of injustice increases.

In the international literature, articles deal with retaliation in the face of aggression, such as the study by Copeland-Linder et al. (2012), which aimed to estimate the effect of retaliatory attitudes on subsequent violent behaviour and combat-related injuries in young people who were treated in an emergency department with aggression injuries. Retaliation was measured using the retaliation subscale of the Children's Perceptions of Environmental Violence, and the results showed that higher retaliatory attitudes were related to more aggression and higher frequency of fighting over time.

Retaliatory attitudes can be observed in several aspects, including in response to problematic behaviours on the part of the clients. Madupalli and Poddar (2014) analysed this aspect in customer service employees and observed that negative emotional reactions are impacted by higher emotional dissonance and exhaustion levels and consequently increase employees' retaliation.

### 4. Methodology

In order to achieve the proposed goal, a case study was carried out, which refers to a group of people (Vergara, 2009), who were young workers assisted by the Professional Social Teaching Association (Espro) at the time of the gathering of data, in Curitiba (PR) and Porto Alegre (RS), two Brazilian capitals.

The research was descriptive (Vergara, 2009) with a quantitative approach (Hair-Junior, Babin, Anderson, & Tatham, 2009).

The analysis units of the research were the two units of Espro, referenced above. The criterion used to select the Espro as well as the young workers assisted by it was accessibility, given Espro approved the study, and the young people agreed to complete the questionnaire.

This instrument was composed of three parts. The first one contained personal and professional data with the purpose of characterising the respondents. In the second part, a scale to evaluate burnout was presented based on the Maslach Burnout Inventory model, which evaluates the three dimensions of the construct – emotional exhaustion, depersonalization and personal and professional fulfilment – and is available in Carlotto and Câmara (2007). The last part was composed of the Scale of Perception and Judgment of the Organizational Retaliation (EPJR) and the Attitude Measurement in Relation to the Organizational Retaliation (MARO), both available in Mendonça (2008).

After the exclusion of questionnaires with missing data, a total of 526 valid questionnaires were obtained, and the descriptive



data presented according to the valid questionnaires, of which 136 correspond to Porto Alegre respondents and 390 to respondents from Curitiba.

For the data analysis, the research was based on the uni- and multivariate statistics. Exploratory factor analyses (EFAs) were performed in both scales. Hair-Junior et al. (2009) point out the usefulness of EFA to extract database information by grouping variables in order to simplify sequential analysis. Subsequently, the descriptive data of the samples and their set were presented. Then, the results of the structural equation modelling performed with the data set were presented, indicating the observed causality relations. This was done with the aid of spreadsheets (Excel) and statistical software SPSS version 22 and SmartPLS version 2.0.

## 5. Presentation and Analysis of Data

This section is subdivided into four parts: the first contains the description of the demographic and professional data of the sample. The second and third present the results of the exploratory factor analysis of the constructs addressed in the study (Burnout Syndrome and Retaliatory Attitudes). The last part presents the results of structural equation modelling.

### 5.1 Descriptive data of samples

Regarding the demographic data, it is observed that the number of female respondents (57%) was higher than the number of men (43%). The majority of the young workers surveyed are in the age range of 16 to 20 years old (84%). The lowest proportion was young people up to 15 years old (2.9%), and also young people over 21 years old did not present expressive numbers (13.1%). Regarding the colour of the skin, the majority consider themselves white (63.1%), followed by light brown (17.3%), brown (14.8%), 4.4% black and only 0.4% yellow. The young workers studied are predominantly single (92.8%). The others are subdivided into: married (3.4%), divorced (0.6%), in a stable union (2.3%) and others (1%). It is noted that none of the respondents indicated the widowed option.

In terms of educational level, three groups stood out: young workers with incomplete high school education (21.9%), complete high school education (45.4%) and incomplete higher education (27.4%), comprising 94.7% of the respondents. The lowest proportions are young people with incomplete middle school education (0.8%), complete middle school education (2.7%) and complete higher education (1.9%). The parents of the youth surveyed mostly had a high school education (35.9%) and incomplete middle school education (21.1%). Regarding the mothers' educational level, the same scenario exists, with a predominance of complete high school education (37.6%) and incomplete middle school education (17.9%).

The professional information reveals that a large part of the young workers had been working for less than six months (36.7%) and between six months to one year (29.5%). The lowest percentages are observed in the groups with the

longest working time: 1.1 to 2 years (11.6%), 2.1 to 3 years (7.4%), 3.1 to 5 years (10.6%), more than 5 years (4.2%). The time in the current company was also asked about and 47.7% said they had been working for less than six months in the current company, followed by those working from six months to one year (43%), results that converge somewhat with those of the total time category of work, as well as with how long they had held the same position, the result of which was less than 6 months (47.7%) and six months to one year (41.6%).

Young people work in different sectors. The results are: 24% of the young people work in industry; 22.4% work in banks, financial institutions or credit agencies; 13.9% work in the service or public administration sector; 10.1% marked the option others; 9.9% work in health; 9.5% in commerce; 3.8% in the transportation and communication sectors; 3% in hospitality or restaurant; 1.7% education; 1% in construction; 0.8% in mining, agriculture or animal breeding; and none work in domestic services.

When it comes to the financial aspect, the vast majority receive a scholarship aid or income in their current employment (80.6%). Of the total family income, 27.8% are in the range of 2 to 3 minimum wages, 17.3% from 1 to 2 minimum wages and 18.8% are 3 to 4 minimum wages, in other words, 63.9% are in the income range of 1 to 4 minimum wages.

Finally, analysing the data on social and professional behaviour, it is observed that 76.4% of the young people had not sought work or internship in the last 30 days, that is they wished to remain in the work area in which they are. In addition, 64.6% indicated the option 'never' for the question about whether they had thought of resigning from work lately. On the other hand, 23.8% indicated the option 'rarely', 'often' (10.5%) and 'always' (1.1%). This result can be explained by the difficulty for young people in entering the labour market, so most do not think about resigning. Moreover, it can be inferred that most young people feel satisfied with the work they do and have no intention of looking for new opportunities at the moment.

### 5.2 Results of the exploratory factor analysis of burnout data

Firstly, the commonalities of the variables were observed, obeying the recommendation that variables with values below 0.500 should be excluded (Malhotra, 2001). In relation to the variables maintained by the mentioned criterion, it can be concluded that the part of each variable explained by the factorial solution is superior to the unexplained part (Hair-Junior, Babin, Money, & Samouel, 2005).

The Kaiser-Meyer-Olkin (KMO) test was used to measure the appropriateness of the application of the EFA in the obtained data. The result was 0.893; therefore, the use of such statistical technique is considered adequate (Hair-Junior et al., 2005).

The Bartlett sphericity test was also performed, obtaining a p-value of less than 0.050; that is, assuming a 95% confidence level, there are statistically significant correlations between the variables that are to be grouped (Hair-Junior et al., 2005).



Three factors were obtained: Emotional Exhaustion (EE), Personal and Professional Fulfilment (RPP) and Depersonalization (DP), from which it is possible to explain 63.26% of the variance of the original data, which shows high

explanatory power of the factorial solution, according to Hair Junior et al. (2005). The factors resulting from the Factor Analysis, as well as the factor loads associated with each variable, can be visualised in Table 01.

**Table 1 – Rotated component matrix burnout**

Variables	Emotional Exhaustion (EE)	Personal and Professional Fulfilment (RPP)	Depersonalization (DP)
sb3		.634	
sb4		.794	
sb5		.784	
sb6		.785	
sb9	.822		
sb10	.797		
sb11	.798		
sb12	.761		
sb13	.731		
sb14	.740		
sb16	.743		
sb19			.759
sb20			.567
sb21			.825

Source: Research data.

To measure the reliability of the data, the Cronbach's alpha that ranges from 0 to 1 was analysed, and the acceptable minimum limit adopted was 0.700 or 0.600 (Figuereido-Filho & Silva-Júnior, 2010). The Emotional Exhaustion factor presented a Cronbach's alpha of 0.906 with 7 items; the factor Personal and Professional Fulfilment 0.753 with 4 items; and the Depersonalization factor 0.686 with 3 items. Thus, a minimum of 0.600 was adopted due to the relatively small number of variables, because according to Hair-Junior et al. (2009) the more variables, the higher the alpha.

### 5.3 Results of the exploratory factor analysis of retaliatory attitudes data

The same parameters of the previous construct were analysed so that the variables with commonalities above 0.500 were maintained (Malhotra, 2001).

The KMO test was 0.918, so the use of the exploratory factor analysis is considered appropriate (Hair-Junior et al., 2005). Bartlett's sphericity test showed that there are statistically significant correlations between the variables to be grouped, with a confidence level of 95% (Hair-Junior et al., 2005).

Four factors were obtained: Judgment of Retaliation (JR), Perception of Retaliation (PR), Conative Component (CPR) and Affective Component (ASI), from which it is possible to explain 66.99% of the variance of the original data, showing high explanatory power of the factorial solution, according to Hair-Junior et al. (2005). The factors resulting from the factor analysis, as well as the factor loads associated with each variable, can be visualised in Table 02.

**Table 2 – Rotated component matrix retaliatory attitudes**

Variables	Judgment of Retaliation (JR)	Perception of Retaliation (PR)	Conative Component (CPR)	Affective Component (ASI)
ar2		.819		
ar3		.789		
ar4		.838		
ar5		.783		
ar6		.815		
ar7		.754		
ar11		.766		
ar13		.779		
ar17	.731			
ar18	.791			
ar20	.772			
ar23	.735			
ar25	.762			



Variables	Judgment of Retaliation (JR)	Perception of Retaliation (PR)	Conative Component (CPR)	Affective Component (ASI)
ar26	.884			
ar27	.859			
ar28	.871			
ar29	.861			
ar30	.833			
ar32			.749	
ar33				.799
ar34			.869	
ar36				.844
ar37			.828	
ar38				.728
ar39			.797	
ar40				.887
ar41				.705
ar42			.853	

Source: Research data.

In relation to Cronbach’s alpha, the Judgment of Retaliation presented a score of 0.942 with 10 items; the Perception of Retaliation 0.916 with 8 items; the Conative Component 0.899 with 5 items and the Affective Component 0.878 with 5 items. Thus, all factors met the minimum criteria. Therefore, the reliability of the data was observed (Hair-Junior et al., 2005).

#### 5.4 Results of the structural equation modelling

In order to analyse the model, the convergent validity was first verified, obtained by means of the calculation of average

variance extracted (AVE). Acceptable values are those equal to or greater than 0.500 (Henseler, Ringle, & Sinkovics, 2009). This criterion was met for all constructs, as shown in Table 3.

The reliability of the model was analysed by Cronbach’s alpha and composite reliability. According to Hair-Junior, Hult, Ringle and Sarstedt (2014), for both, the acceptable minimum is 0.700 (AC > 0.700 and CC > 0.700). As shown in Table 3, all constructs presented values above the recommended values.

Table 3 – Quality of adjustment of the proposed model

Constructs	AVE	Composite Reliability	Cronbach’s Alpha
Affective Component (ASI)	0.672	0.911	0.877
Conative component (CPR)	0.716	0.927	0.901
Depersonalization (DP)	0.611	0.824	0.701
Emotional Exhaustion (EE)	0.639	0.925	0.906
Judgment of Retaliation (JR)	0.646	0.948	0.942
Perception of Retaliation (PR)	0.632	0.932	0.917
Personal and Professional Fulfilment (RPP)	0.556	0.832	0.757

Source: Research data.

Afterwards, the discriminant validity was analysed through cross loads – cross-loading (Chin, 1998), in which the highest factorial loads should be in their respective constructs. The

validity by means of this criterion was observed, according to Table 4 below.

Table 4 – Evaluation of the discriminant validity according to cross-load test

Variables	ASI	CPR	DP	EE	JR	PR	RPP
ar11	0.080	0.102	0.193	0.265	0.011	0.776	-0.085
ar13	0.109	0.201	0.227	0.308	0.003	0.806	-0.079
ar2	0.067	0.045	0.167	0.282	-0.035	0.807	-0.09
ar3	0.119	0.094	0.141	0.251	0.000	0.783	-0.091
ar5	0.056	0.055	0.14	0.22	0.015	0.764	-0.072
ar6	0.115	0.111	0.189	0.282	0.077	0.819	-0.129
ar7	0.139	0.137	0.187	0.277	0.013	0.772	-0.097
ar17	0.015	0.139	0.042	0.092	0.781	-0.010	-0.104
ar18	-0.017	0.08	0.045	0.038	0.78	-0.026	-0.073
ar20	0.025	0.05	0.013	0.019	0.743	-0.027	-0.022
ar23	0.087	0.163	0.053	0.089	0.798	0.051	-0.065



Variables	ASI	CPR	DP	EE	JR	PR	RPP
ar25	0.058	0.095	0.065	0.102	0.801	0.045	-0.121
ar26	0.018	0.079	0.047	0.069	0.87	0.021	-0.028
ar27	-0.034	0.014	0.013	-0.005	0.79	-0.002	-0.007
ar28	0.036	0.089	0.061	0.055	0.845	0.012	-0.06
ar29	0.029	0.043	0.026	0.047	0.819	0.039	-0.025
ar30	0.042	0.063	0.068	0.065	0.796	-0.014	-0.034
ar33	0.804	0.33	0.111	0.259	-0.009	0.138	-0.067
ar36	0.848	0.344	0.097	0.262	-0.009	0.123	-0.103
ar38	0.738	0.318	0.076	0.184	0.047	0.04	-0.029
ar40	0.896	0.367	0.128	0.283	0.046	0.123	-0.099
ar41	0.803	0.465	0.173	0.238	0.106	0.069	-0.063
ar32	0.398	0.798	0.131	0.205	0.074	0.116	-0.092
ar34	0.408	0.895	0.162	0.225	0.073	0.111	-0.076
ar37	0.303	0.817	0.179	0.254	0.118	0.133	-0.059
ar39	0.385	0.837	0.153	0.225	0.171	0.097	-0.125
ar42	0.404	0.882	0.202	0.254	0.105	0.117	-0.14
ar42	0.404	0.882	0.202	0.254	0.105	0.117	-0.14
sb10	0.264	0.173	0.347	0.739	0.038	0.233	-0.161
sb11	0.254	0.243	0.494	0.839	0.093	0.291	-0.277
sb12	0.243	0.211	0.483	0.797	0.045	0.257	-0.208
sb13	0.196	0.208	0.529	0.813	0.031	0.254	-0.247
sb14	0.266	0.266	0.493	0.823	0.109	0.31	-0.311
sb16	0.252	0.217	0.456	0.779	0.084	0.271	-0.277
sb9	0.217	0.204	0.418	0.804	0.097	0.309	-0.217
sb19	0.071	0.141	0.664	0.333	0.025	0.077	-0.132
sb20	0.154	0.131	0.850	0.578	0.056	0.229	-0.210
sb21	0.102	0.198	0.821	0.401	0.060	0.187	-0.152
sb3	-0.128	-0.073	-0.269	-0.392	-0.061	-0.164	0.824
sb4	-0.019	-0.06	-0.126	-0.134	-0.065	-0.053	0.717
sb5	-0.043	-0.129	-0.078	-0.143	-0.075	-0.077	0.781
sb6	-0.017	-0.103	-0.117	-0.122	-0.061	0.045	0.647

Source: Research data.

Still with the intention to analyse the discriminant validity, the Fornell and Larcker (1981) criterion, which compares the square roots of AVEs, was observed, and in this case, each

construct should present a higher value in comparison to the correlations of the other constructs. Table 5 demonstrates that this criterion was met.

**Table 5 – Evaluation of discriminant validity compared to AVE**

	ASI	CPR	DP	EE	JR	PR	RPP
ASI	0.820						
CPR	0.451	0.846					
DP	0.147	0.195	0.782				
EE	0.301	0.274	0.579	0.799			
JR	0.048	0.127	0.062	0.090	0.803		
PR	0.121	0.135	0.224	0.345	0.019	0.795	
RPP	-0.089	-0.118	-0.216	-0.307	-0.086	-0.120	0.745

Source: Research data.

The Pearson’s coefficient of determination ( $R^2$ ) evaluation considers the part of the variance of the endogenous variables that is explained by the model. For the social sciences, when  $R^2 = 2\%$  it is considered a small effect; when  $R^2 = 13\%$  it is considered as average; and when  $R^2 = 26\%$  it is considered as a large effect (Cohen, 1988). It can be observed, based on Table 6, that only two constructs present a small effect, one presented a great effect and the other constructs, average effects. The construct Perception of Retaliation presented a value equal to zero, since it is an exogenous construct.

The effect size ( $f^2$ ) – or Cohen's indicator – identifies how much each exogenous construct contributes to the explanation of the variance of the endogenous construct. Thus, values of 0.020 are considered small; 0.150 average; and 0.350 large (Hair-Junior et al., 2014). In Table 6, it is observed that all the constructs presented average or large values, which is satisfactory.

Predictive validity ( $Q^2$ ) – or Stone-Geisser indicator – analyses the conformity of the adjusted model and, according to Hair-Junior et al. (2014), must be greater than zero ( $Q^2 > 0$ ). In Table



6, the values of Q<sup>2</sup> are presented, all of which met the minimum acceptable value, except the construct Perception of Retaliation, which did not contribute to the partial prediction

of the model, due to the fact that it is a construct antecedent to other constructs.

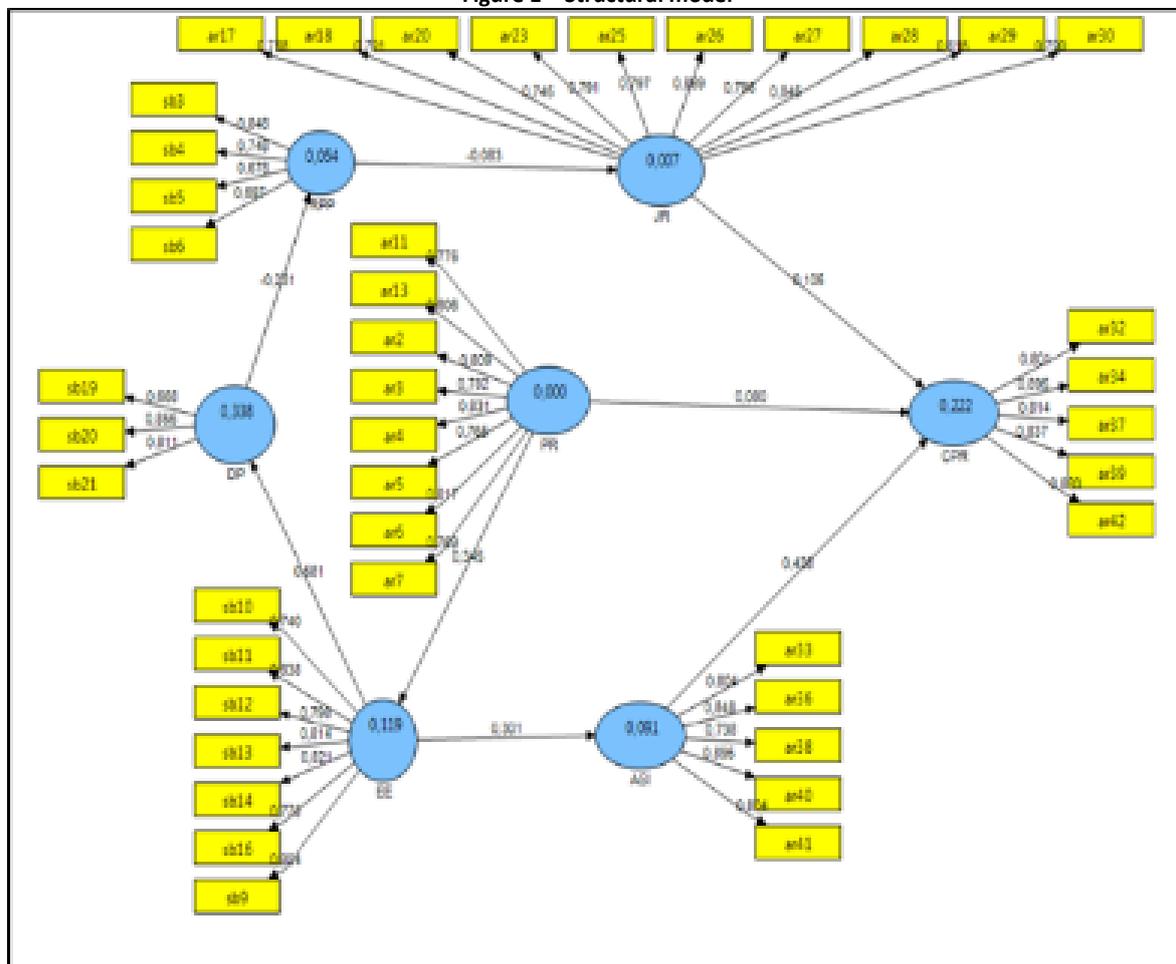
**Table 6 – Pearson’s coefficient of determination, effect size and predictive validity indicators**

Constructs	R <sup>2</sup>	f <sup>2</sup>	Q <sup>2</sup>
Affective Component	0.091	0.476	0.061
Conative Component	0.222	0.570	0.148
Depersonalization	0.338	0.246	0.198
Emotional Exhaustion	0.119	0.517	0.073
Jugment of Retaliation	0.007	0.558	0.003
Perception of Retaliation	0.000	0.519	-
Personal and Professional Fulfilment	0.054	0.279	0.020

Source: Research data.

Given the observation of the necessary criteria to ascertain the adequacy of the model, the structural model proposed for this study is presented in Figure 1.

**Figure 1 – Structural model**



Source: Research data.

After the evaluation of the model adjustment, the significance of the correlations was analysed using the Student’s t-test, which, according to Hair-Junior et al. (2014), is acceptable when equal to or greater than 1.96, so that all relations of the proposed model have been

validated. In addition, the path coefficients, which evaluate the causal relationships between the constructs, were analysed. The values are shown in Table 7.

**Table 7 – Values of the path coefficients and t-test of adjusted model**

Causal Relation	Student's t-test	Path Coefficients
Affective Component → Conative Component	14.201	0.436
Depersonalization → Personal and Professional Fulfilment	5.928	-0.231
Emotional Exhaustion → Affective Component	7.395	0.301
Emotional Exhaustion → Depersonalization	18.267	0.581
Judgment of Retaliation → Conative Component	2.937	0.105
Perception of Retaliation → Conative Component	2.094	0.080
Perception of Retaliation → Emotional Exhaustion	8.354	0.345
Personal and Professional Fulfilment → Judgment of Retaliation	2.016	-0.083

Source: Research data.

The influence of the dimensions of the burnout syndrome was found among itself, which is a relevant finding since there are still few studies that investigate the relations between the emotional exhaustion, depersonalization and personal fulfilment dimensions, since most studies consider several variables antecedent and consequent (Bernd & Beuren, 2017).

The Emotional Exhaustion (EE) dimension showed a significant and positive correlation with Depersonalization (DP). Therefore, it can be inferred, that the increase in the physical and emotional exhaustion of young workers leads to an increase in detachment in relation to their work. Such result contrasts the findings of Almeida et al. (2011), who observed the inverse relation so that the more the individual becomes depersonalised, the more he or she feels depletion, with low energy in his or her day-to-day work.

On the other hand, the Depersonalization (DP) dimension is significantly and negatively correlated with Personal and Professional Fulfilment (RPP). Thus, the increase in the feeling of detachment and cynicism diminishes the achievement of young workers at work. Again, this result was the inverse of that of Almeida et al. (2011), who found a negative correlation between Personal Fulfilment and Depersonalization, in a way that individuals who feel professionally fulfilled are those who do not tend to treat their peers, clients and organisation as objects.

Regarding the Retaliatory Attitudes, the Affective Component (ASI) showed a positive and significant correlation with the Conative Component (CPR). The affective component deals with the capacity of the individual to be indignant with the situations that occur unjustly, and the conative component demonstrates the tendency to present retaliation in this context. That is, the younger workers feel anger and approve retaliatory attitudes towards injustices, so they tend to exhibit such behaviour. Such result converges with the correlations found by Rios, Leal and Dutra (2016) and Paiva et al. (2017).

The Judgment of Retaliation and the Perception of Retaliation showed a significant and positive correlation with the Conative Component. It can be assumed that the younger workers perceive and judge retaliation, so they tend to act consciously in the same way. Again, such results are corroborated by the findings of Paiva et al. (2017) regarding the correlation between such dimensions.

Emotional Exhaustion presented a positive correlation with the Affective Component. Such a finding suggests that the more they are emotionally exhausted, the younger people become indignant over perceived injustices. In addition, when injustices are perceived in the workplace, young people tend to show signs of emotional exhaustion: the correlation was significant and positive between the two constructs (PR and EE). Finally, Personal and Professional Fulfilment (RPP) obtained a significant and negative correlation with the Judgment of Retaliation (JR); thus, the lower the youth satisfaction in their daily life at work, the more easily they judge the behaviours of retaliation.

## 6. Final Considerations

The general objective of the present study was to analyse the influence of burnout dimensions in relation to the retaliatory attitudes of young workers assisted by Espro, in Curitiba (PR) and Porto Alegre (RS). For that, the theoretical framework was structured, covering the key concepts of each construct, as well as some more current studies on the themes. The research was characterised by being a descriptive case study with a quantitative approach. A questionnaire was applied, and then the exploratory factor analysis was carried out for each construct and finally the structural equation modelling.

The relations found between burnout and retaliatory attitudes have shown that the emotional exhaustion of young workers leads to more outbursts of anger towards the perceived injustices at work. On the other hand, continually realising the retaliation tends to lead to the feeling of emotional exhaustion; this can be explained as being due to the fact that an environment where injustice occurs – and consequently retaliation – can become displeasing and unpleasant, leading to emotional depletion. Also, when they do not feel accomplished at work, they tend to judge retaliation as more correct.

This study contributed primarily to the field of studies on human behaviour in organisations by relating the two constructs and verifying significant relations between them, given that no Brazilian studies were found that achieved such an accomplishment. In the academic field, this article contributes to bringing to the fore considerations about burnout that directly impact on the physical and mental health of workers, and retaliatory attitudes, which are detrimental to organisations, as well as to increase the literature about young workers.



In addition, for organisations dealing with young workers, it is extremely important to investigate the behaviour of this group, which has several peculiarities, so that the policies and practices of human management are directed in an appropriate and specific way. Organisations should deal better with young workers in their psychological health so that emotional exhaustion does not occur, since the more exhausted they are, the more they become indignant at the perceived injustices in the workplace. Injustices must also be minimised because, when they occur, they can generate retaliatory attitudes, which are counterproductive and harmful to organisations. The results showed that the perceptions of retaliation lead to emotional exhaustion, and workers with exhaustion fail to deliver satisfactory results in support of the organisation's goals. In addition, low achievement leads to a judgment of retaliation as being correct. In this sense, it is necessary to consider the wishes of the younger workers who wish to strengthen their professional achievement in their work.

As a suggestion for future research, it is considered that there is a need for more studies with young workers, including the incorporation of other cities and regions of Brazil in the investigations, as well as the accomplishment of qualitative research addressing these topics, in an effort to understand them in more depth and the interconnections between them with other constructs.

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