

Work design and influences on engagement at work and intention of rotativity

Design do trabalho e influências no engajamento do trabalhador e a intenção de rotatividade

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Abstract

It aims to verify engagement at work and turnover intention, a sign that the worker does not feel well at work. Three hundred eighty-nine people participated, with an average age of 32.2 years, mostly female, single, graduated. We used the UWES-9, EIR, WDQ (adapted version), and a sociodemographic questionnaire. The results reported that the work acts as an organizational antecedent for indicators in people management and is related to responsibilities and relationships; moreover, how the worker organizes them concerning the activities and content to perform their job affects the engagement at work and the intention to leave the company.

Keywords: work design, work engagement, intention of rotation

Resumo

O objetivo desta pesquisa é verificar a influência do desenho do trabalho no engajamento no trabalho na intenção de rotatividade, sinal de que o trabalhador não se sente bem em seu trabalho. Participaram 389 pessoas com idade média de 32,2 anos, maioria mulheres, solteiras, graduadas. Utilizou-se as Escalas de Engajamento UWES-9, de intenção de Rotatividade, o Questionário de Desenho do Trabalho - WDQ (versão adaptada) e um questionário sociodemográfico. Os resultados apontaram que o desenho do trabalho afeta o engajamento no trabalho e a intenção de sair da empresa, portanto é um importante indicador para que as empresas elaborem políticas e práticas de gestão que proporcionem autonomia feedback e saúde mental no trabalho.

Keywords: desenho do trabalho, engajamento, intenção de rotatividade

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Introduction

Work occupies one of the most significant axes of human life, as it is part of the construction of their identity, facilitates the creation of bonds and interpersonal relationships and is a means of achieving their goals. Over the years, man has been transformed by work, giving it different senses and meanings (Soares & Dias, 2009).

With several global economic changes, the basic characteristics of work design and the way it is organized has been constantly changing (Devotto, 2016). Work design is a phenomenon that refers to the content and organization of work tasks, activities, relationships and responsibilities (Parker, 2014).

Parker, Morgeson and Johns (2017) indicate that psychological and social problems impact health due to the way work is designed; if mass, it tends to be an environment with unpredictable working conditions that generated conflict and reduced productivity. Such an environment can be positively changed by working autonomously. Emphasizes the importance of differentiating job design, linked to a set of tasks assigned to an employee, and work design, referring to the content, composition and structure of the environment in which are performed (Morgeson & Humphrey, 2008), which is the focus of this study.

Job design features were classified into three main categories: motivational, with the idea that jobs will be enriched if high levels of this feature are present; social, which reflects in the sharing of the work environment; and contextual as it considers the context in which the work is done, including the physical and environmental contexts (Morgeson & Humphrey, 2006).

According to Parker, Van de Broeck and Holman (2017), when work is designed with motivating characteristics, such as work autonomy and social support, as well as reasonable levels of work demands, there are several positive outcomes, both individual and organizational. According to these authors the work design can affect the mental health and performance of the worker, causing stress, job dissatisfaction, absenteeism, accidents, intention to rotate, loss of productivity, among others, ie, it is not enough to consider only the influences of work macro context of work (organizations) and it is not advisable to consider only the meso level (groups) or only the individual factors (micro level). The interactions between collaborators and organizations modify the indicators that involve Psychology and Management (level of work engagement, productivity, etc.) and start from the work design.

Bayona, Caballer and Peiró (2015) proved that the knowledge and autonomy characteristics would be higher for workers with higher occupations and hierarchical levels. These workers have higher coefficients for all knowledge characteristics: work complexity, information processing, problem solving, variety of skills and specialization. Such factors can influence work engagement, which is a desirable phenomenon as it facilitates both individual and organizational performance (Oliveira & Rocha, 2017).

Siqueira, Martins, Orengo and Souza (2014) refer to the presence of engagement in different domains of employees (physical, cognitive, emotional and mental), and identification with work increases commitment to it. Thus, identifying

with one's own work is good, whether for productivity in organizations or for the personal evolution of employees.

Engagement is a “positive work-related mental state characterized by vigor, dedication and absorption” (Schaufeli, Salanova, Gonzalez-Romá, & Bakker, 2002, p. 53). Vigor is the employee's tendency to perform his activities with great effort and to remain resistant to obstacles that may arise. Dedication are perceptions in the order of meaning, enthusiasm, inspiration, pride and challenges at work. And absorption refers to concentration and attachment to work, so much so that the individual does not realize the time passing and has difficulty separating from work.

Between the antecedents the most important antecedents of engagement are work resources, understood as the physical, psychological, social or organizational aspects of work (Bakker Demerouti, & Sanz-Vergel, 2014). To maintain the healthy development of organizations, it is important to assess and prevent the prevailing psychosocial risks in these environments, such as stress, burnout and bullying, as well as to strengthen their strengths and well-being, and engagement is one of the factors that contribute to conserving this environment (Montalbán, Lugo, & Cardona, 2014). The results of the survey of 3098 workers from 76 companies in Belgium on Job Design conducted by De Spiegelaere, Van Gyes, Witte and Van Hootegem (2015) showed that when employees have sufficient autonomy, they also present a coping strategy oriented towards change, increasing work engagement, which does not occur when they have low autonomy.

Work engagement is a dynamic process, when there is low engagement, one of the possible consequences is the increased intention of turnover. Engagement has a negative correlation with the intention to leave the company, that is, the lower the engagement of an employee, the greater the desire to leave the organization (Oliveira & Rocha, 2017; Zhang, Ling, Zhang, & Xie, 2015).

Another phenomenon in organizations is staff turnover. The loss of workers can cause the company financial and non-financial deficits, causing movement in the people management processes and eventually changes in the work routine and expertise of the area that has been rotated and related to it (Siqueira, Gomide, Oliveira, & Polizzi, 2014). Turnover analysis can help managers develop strategies to retain good company professionals (Agapito, Polizzi Filho, & Siqueira, 2015).

Staff turnover, also known as turnover, is the process of moving people in an organization through hiring and firing (Siqueira et al., 2014). And the intention of turnover, the best predictor of turnover, is the measurement of the intention of a worker to leave the job in which they find themselves (Agapito et al., 2015).

Dysvik and Kuvaas (2013) indicate that for employees with high leadership support, the decrease in turnover intention level is linked to autonomy at work. Wan, Li, Zhou and Shang (2018) report the importance of supervisor support in the relationship between work engagement and turnover intention, that is, they affirm that it is important to reinforce personnel management policies, as well as favoring the permanence of employees. In the company, the low turnover influences the work to be done efficiently and the service and/or product, finished with quality (Ferreira & Freire, 2001).

The aim of this study was to test a model in which work design would predict job engagement and turnover intent, and explore some differences between participants in the various categories of variables studied, such as education and type of employment.

Method

A quantitative, descriptive and cross-sectional field research was carried out. Gil (2002) points out that descriptive research has as its primary objective the description of the characteristics of a given population or phenomenon, or the establishment of relationships between variables. According to the same author, the field study seeks to deepen the proposed questions, as well as the distribution of population characteristics according to certain variables.

Participants

The initial sample consisted of 482 people, however 93 individuals were not in agreement with the inclusion criteria: working for more than six months in the current company, being working, answering more than 90% of the questionnaire or being over 18 years and so were excluded from the sample. The final sample consisted of 389 people, ranging in age from 18 to 68 years ($M = 32.2$; $SD = 10.5$) and predominantly female (63.9%). Regarding marital status, single participants with incomplete higher education predominated. Regarding regional origin, most were from the Southeast (57%), followed by the Midwest (34.3%), North (3.9%), South (4.4%) and Northeast (0.5%). More than half of them work in a CLT regime, working from six months to 34 years in the same company ($M = 6$ and $SD = 6.2$), working in private companies, most in companies with more than 500 employees. Table 1 and 2 presents the other sociodemographic data of the participants.

Table 1
Socio-demographic characteristics of the participants (n= 389).

Personal variables					
	N	%		N	%
Marital status			Schooling		
Married	117	30,2	High school	27	6,9
Single	234	60,3	University education	226	58,1
Separated/divorced	19	4,9	Specialization	86	22,1
Others	18	4,6	Master	26	6,7
			Doctor	24	6,2
Organizational variables					
	N	%		N	%
Type of bond			Company Type		
Temporary (non-CLT)	7	1,8	Private	241	62,1
Internship (non-CLT)	32	8,2	Public	106	27,3
Young Apprentice (non-CLT)	3	0,8	NGO/ 3rd Sector	12	3,1
CLT	205	52,8	Cooperative	5	1,3
Tender (Public Office)	69	17,8	Others	23	5,9
Public office	4	1	Occupation area		
Freelancer/ Legal Entity	18	4,6	Commerce	52	13,4
Self employed / Individual	49	12,7	Services	189	48,7
			Industry	25	6,4
			Outros	121	31,2

Table 2
 Characterization the participants (n= 389)

Organizational variables		
	N	%
Type of bond		
Temporary (non-CLT)	7	1.8
Internship (non- CLT)	32	8.2
Young apprentice (non-CLT)	3	0.8
CLT	205	52.8
Tenure (Public servant)		
Public servant	4	1
Autonomous/Legal Person	18	4.6
Autonomous/ Physical person	49	12.7
Type of company		
Private	241	62.1
Public	106	27.3
NGO/3 rd Sector	12	3.1
Cooperative	5	1.3
Others	23	5.9
Field		
Trade	52	13.4
Services	189	48.7
Industry	25	6.4
Others	121	31.2

Instruments

To evaluate the aspects of the work, the shortened and adapted Brazilian version of the Work Design Questionnaire (WDQ) by Morgeson and Humphrey (2006) was used. The full scale was validated in Portuguese (Brazil) by Borges-Andrade, Peixoto, Queiroga and Pérez-Nebra, (2019). The scale is divided into 4 factors (Knowledge Characteristics, Task Characteristics, Social Characteristics and Work Context) and their responses are Likert type, ranging from 1 to 5 (1 = strongly disagree; 2 = disagree; 3 = neither agree neither disagree; 4 = agree; 5 = strongly agree). Originally has 21 subfactors and 77 items, but in the Brazilian validation, it presented the same structure of four factors, 18 subfactors and 71 items. In this research the Social Characteristics factor and all its subfactors were used, the subfactors 'autonomy in work organization', 'autonomy in working methods' and 'variety of tasks' of the Task Characteristics factor. From the Knowledge Characteristics factor, two items were used from each of the following subfactors: 'problem solving / variety of skills', 'specialization' and 'information processing', thus totaling 29 items. No item of the Work Context factor was used. This option was designed to reduce the size of the research instrument, because the interest of the investigation was in the subfactors and selected items and because the study by Borges-Andrade et al. (2019) was not finished.

To measure work engagement, we used the one-factor reduced version scale, the Utrecht Work Engagement Scale (UWES-9) in the Brazilian version (Ferreira et al., 2016), consisting of 9 items. Participants respond using a five-point Likert scale, relative to the frequency of having experienced certain situations at work (1 = never; 2 = a few times a year; 3 = a few times a month; 4 = a few times a week; 5 = daily).

To assess turnover intent, the Turnover Intention Scale (TIS) was used (Polizzi Filho & Siqueira, 2012), consisting of 3 items, answered on a Likert scale, ranging from 1 to 5 (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always).

In addition, participants answered a sociodemographic questionnaire containing questions regarding gender, age, marital status, education level, region where they worked, employment status, job level, type of function, length of company, type and area of activity. of company and number of employees.

Data collection and analysis procedures

Data collection was performed online to allow a greater geographical reach of the Brazilian territory. This study was approved by the Research Ethics Committee under number CAAE 79450117.9.0000.5508. There was also the Free and Informed Consent Term (FICT); only with the acceptance of the participant could access the survey.

Data was processed using the Statistical Package for Social Sciences, SPSS (IBM, 2012), version 22.0 for Windows, and subjected to statistical analysis to achieve the proposed objectives, as follows: descriptive (frequency, mean, standard deviation and coefficient of variation), normality distribution (Kolmogorov-Smirnov test), correlational analyzes (Pearson's bivariate correlation), Cronbach's alpha, ANOVA and standard linear regression. The correlations between the variables were analyzed from the interpretation of Dancey and Reidy (2005), who consider $r = 0.10$ to 0.30 as low intensity, $r = 0.40$ to 0.60 as moderate, and $r = 0.70$ to 1 as strong.

Results and Discussions

The internal consistency or reliability tests of the instruments (Pasquali, 2009) used in the present study are shown in Table 3. It is possible to notice high levels of reliability of all scales used (Pestana & Gageiro, 2003). Morgeson and Hunphrey (2006) validated the WDQ with 540 participants and 243 types of occupations and obtained a general reliability index assessed by Cronbach's alpha of 0.87. Vielma (2013) validated WDQ in the Spanish version in Chile. The survey had 373 respondents, mostly from large companies, having obtained internal consistency of $\alpha = 0.92$ for the overall scale with 77 items. Borges-Andrade et al. (2019) found reliability indices between 0.70 and 0.94. The results obtained in this study corroborate the findings of Morgeson and Hunphrey (2006), as well as those of Vielma (2013) and those of Borges-Andrade et al. (2019), although in this research we worked only with part of the WDQ (29 items) (Table 3).

Table 3
Psychometrics characteristics of scales of study (n=389)

Variável	Escala	Itens	Alfas de Cronbach	
			Original Study	Current Study
Work Design	WDQ (Vielma, 2013)	77	0,92	
	WDQ (Morgeson e Humphey, 2006)	77	0,87	
	WDQ reduced and adapted	29		0,92
Turnover Intention	Turnover Intention	3	0,95	0,94
Work Engagement	Work Engagement	9	0,92	0,96

Descriptive analysis of the variables indicated values of the mean scores of the Turnover Intention, Work Engagement and the Work Design factors used in the research. Participants had an average of 2.8 (SD = 1.4) points for the Turnover

Intention Scale and 3.8 (SD = 0.9) points for the Work Engagement Scale. Regarding the WDQ, the average frequency of the response scale of all factors was above 3 points, the highest being the Knowledge Characteristics, whose average was 3.8 (SD = 0.9) points, followed by the Social Characteristics factor with average = 3.5 (SD = 0.7) points, and Task Characteristics factor with 3.4 (SD = 0.8) points.

The results show that participants feel engaged with their work, which requires knowledge and skills to perform and realize that they have autonomy at work, variety of activities and opportunities for interpersonal relationships. However, because the standard deviation was between 0.70 and 1.40, these results may vary significantly. According to Hair Jr, Babin, Money and Samouel (2005) the higher the value of the standard deviation, the farther from the average the values are. Checking the dispersion of responses, the coefficient of variation was greater than 20% in all factors, except for social characteristics, which was 20%, considered high (Oliveira, 2007), revealing that there was great heterogeneity in the sample.

Variance analyzes were performed to explore the impact of schooling and type of engagement in engagement and intention to turn. Participants were divided into five levels of education (Group 1: High School; Group 2: Higher Education; Group 3: Specialization; Group 4: Master and Group 5: Doctorate) and nine types of work links with the organization (Group 1: Temporary; Group 2: Internship; Group 3: Young Apprentice, Group 4: Effective CLT; Group 5: Statutory Examination; Group 6: Public Position on Commission; Group 7: Professional / Legal Entity; Group 8: Self Employed / Individual and Group 9: Other). Results revealed that there is a statistically significant main effect for schooling on the levels of engagement at work $\{F(4, 388) = 5.34, p = 0.000\}$. There are no significant differences for levels of education in the Intent of Turnover levels $\{F(4, 388) = 1.880; p = 0.11\}$. As the groups are unequal and the variances between them are different, the ad hoc test used to verify differences between them was that of Games-Howell (Ruxton & Beauchamp, 2008).

Table 4 reveals the significant differences in task characteristics between groups of different educational levels: it can be observed that workers with average education perceive less autonomy in the organization of tasks, working methods and the variety of tasks (task characteristics) than those with higher education and those with a doctorate; Those with higher education and specialization perceive these characteristics less than those with a doctorate level. There was no significant difference between the other groups.

Significant results from the Games-Howell test for differences between educational groups in levels of engagement at work.

Table 4
Significant results from the Games-Howell test for differences between educational groups in levels of engagement at work

Dependent variable	(I) Schooling	(J) Schooling	Mean difference (I-J)	Standard error	95% Confidence interval	
					Inferior limit	Upper limit
TaskCharac	High school	Specialization	-0,55*	0,17	-1,03	-0,07
		PhD	-1,12**	0,18	-1,64	-0,60
	Univesity education	PhD	-0,72**	0,12	-1,06	-0,35
KnowledgeCharac	Specialization	PhD	-0,57**	0,13	-0,95	-0,19
		High scholl	Specialization	-0,62*	0,22	-1,29
	Engagement	Univesity education	Master	-0,83*	0,27	-1,60
PhD			-1,18**	0,22	-1,82	-0,53
Specialization		PhD	-0,08**	0,11	-1,12	-0,49
Engagement	Specialization	PhD	-0,53**	0,13	-0,89	0,00
		Univesity education	Specialization	-0,40**	0,10	-,068
	Univesity education	PhD	-0,55*	0,16	-1,02	-0,08

Note: * The average difference is significant at the 0.05 level, ** The average difference is significant at the level of 0.01

The results also point out that doctoral workers are more engaged in work than those with higher education and specialization and that the latter are more engaged than higher education workers. Thus, the higher the level of education, the more workers invest vigor, dedication and concentration at work. Jobs that require more education and more knowledge, give more independence and provide more variety in activities and greater possibilities for relationships. This corroborates the results of Jesus (2018), which confirms that work activities follow the educational level, that is, if the employee's educational level is high, he / she should also have high skills and knowledge in his / her work.

It was also verified the variation of the means in relation to the type of employment (Table 5). ANOVA results show that there are significant differences between means of employment type in relation to intention to turn {F (8, 387) = 2.35, p = 0.02} and task characteristics {F (8, 387) = 4.20, p = 0.000}. But there was no impact of the type of bond on the means of social characteristics {F (8, 387) = 1.08, p = 0.37}, on knowledge characteristics {F (8, 387) = 1.60, p = 0.12}, nor about work engagement {F (8, 386) = 1.87, p = 0.06}.

As in the previous model, group sizes are unequal and variances are not homogeneous; So the test used to check post hoc differences was Games-Howell. Results (Table 5) revealed significant differences in intention to rotate between self-employed and full-time workers and between self-employed and occupying committee positions, with both full-time and occupying committee positions having a greater intention to leave the organization than self-employed persons. Self-employed professionals realize that their tasks give them more autonomy, greater variety and more identity than trainees; Self-employed persons have a similar perception regarding workers governed by the CLT regime and those governed by the civil service statute.

Table 5
Significant results of the Games-Howell ad hoc test for differences between types of employment link in task characteristics and turnover intention.

Dependente variable	(I) typeofbond	(J) typtofbond	Mean difference (I-J)	Standard error	95% Confidence interval	
					Inferior limit	Upper limit
TaskCharac	Internship	Professional /legal person	-0,90*	0,24	-1,72	-0,08
		Self-employed /Physical person	-0,80*	0,17	-1,35	-0,24
	Effective CLT	Self-employed /Physical person	-0,48*	0,13	-0,06	-0,90
Turnover Intention	Bidding statutory	Self-employed /Physical person	-0,50*	0,15	-0,01	-0,99
		Effective CLT	-0,79*	0,24	-0,02	-1,56
	Public position in Commission	-1,54*	0,36	-0,04	-3,04	

Note: * The average difference is significant at the 0.05 level.

At the other extreme, from the lowest averages, we have the category of “Non-CLT” workers, including those hired as interns, young apprentices and temporary workers, who had the lowest engagement ($M = 3.5$ and $SD = 0.9$). The second major intention to leave the current company ($M = 2.8$ and $SD = 1.4$); their averages of the Work Design subfactors were the lowest compared to other professionals.

According to the research by Pereira e Almeida (2017) workers who are in public positions (competed), despite having low index for turnover intention, due to job stability, there is a percentage of workers looking for new opportunities, due to routine work, transfers, as well as low wages, leading to losses for the institution. And the high rate of turnover intent among workers in the CLT regime can be explained by the high rate of job insecurity, outsourced work, that is, although they are not satisfied, workers need a source of income and do not leave work easily, because they know the reality of the labor market (Gondim, Pinheiro, Mendes, & Neves, 2018), as well as the current high levels of unemployment in Brazil.

The results of the subfactors of the Work Design Scale (autonomy in work organization, autonomy in work methods, variety of tasks, social support and feedback) show the concentration of the lowest averages in the category of workers under internship contracts, young and temporary apprentices (Non-CLT) and the highest averages came from public and self-employed professionals

Table 6
Significant differences between averages for employees, non-employees, statutory workers and self-employed workers

Type of bond x Sub-factors WDQ	N	Non-CLT (contracts)	CLT	Public Office	Autonomous
		42	205	73	69
Autonomy Work Organ. (F=5,663; p=0,001)	Mean	2,96	3,11	3,15	3,69
	SD	1,04	1,15	1,00	1,07
Autonomy Work Methods (F=7,499; p=0,000)	Mean	2,89	3,05	3,03	3,69
	SD	1,00	1,13	0,95	1,09
Varieties of Tasks (F= 5,474; p=0,001)	Mean	3,26	3,88	3,91	3,92
	SD	1,08	0,93	1,11	0,84
Social Support (F= 4,414; p=0,005)	Mean	3,85	3,65	3,97	3,91
	SD	0,78	0,79	0,71	0,75

The results show that workers with internship contracts, young apprentices and temporary workers (non-CLT) perceive less freedom (autonomy) in relation to how they organize and perform their work, that there is a limit of tasks to be performed and feel the need help from other people in the organization. These results are corroborated by the research by Bayona et al. (2015) on the variation of work characteristics according to occupational categories, and the knowledge and autonomy characteristics would be higher for workers with higher occupations and hierarchical levels, and that operational workers would have higher levels of physical demands and lower levels of working conditions, and it can be inferred that organizational characteristics are related to the level of engagement and the intention of employees to leave the current company.

Regression analysis

The strongest correlation in this study was between engagement and intention to turnover ($r = -0.58$). The highest correlation between the work design and the engagement variable occurred with the task characteristics ($r = 0.45$, $p < 0.01$), followed by social characteristics ($r = 0.44$, $p < 0.001$), as well as in relation to turnover intention and knowledge characteristics ($r = -0.30$, $p < 0.01$) and social characteristics ($r = 0.27$, $p < 0.001$).

The results of this study showed that as age increases, there is also a significant weak increase in the knowledge and task characteristics of the Work Design Scale and vice versa. Jesus (2018) presented this correspondence only in the characteristics of the task, so these results should be verified in future research, once there is divergence between the results of the two studies.

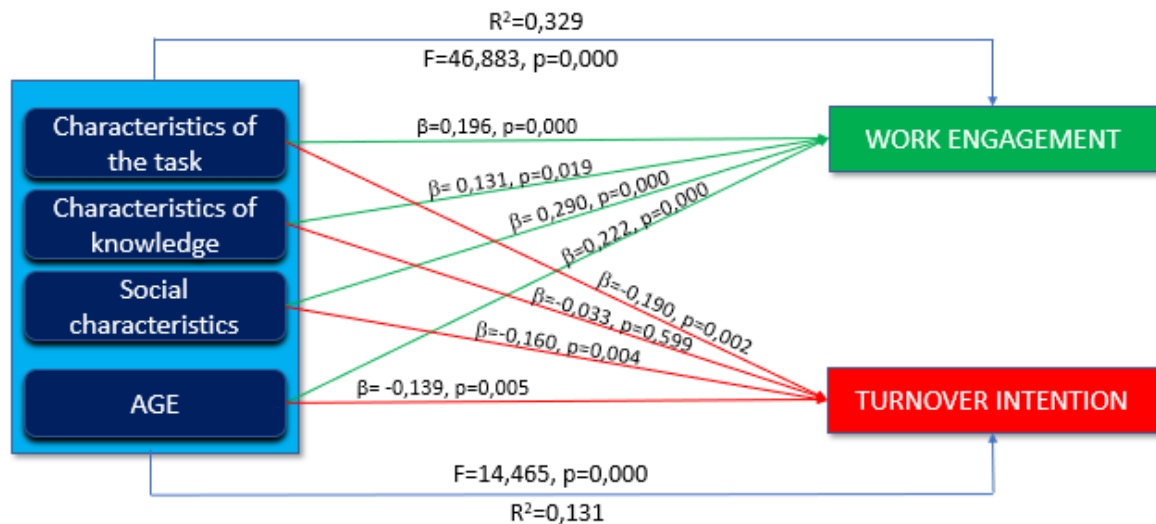
Regression analyzes were used to analyze the model with the work design scale factors as predictors of job engagement and turnover intent. Among the component factors of the study design, Social Characteristics, parts of Knowledge Characteristics subfactors and three subfactors of Task Characteristic, in addition to age, were used because they all had significant correlations with the dependent variables. Together, they explained 32,9% of the variance of work engagement ($F = 46,88$; $gl = 4$; $p < 0.001$) of engagement and 13,1% ($F = 14,46$; $gl = 4$, $p < 0,001$) of turnover intention.

Figure 1 presents the regression coefficient data for the dependent variables work engagement and turnover intent. Regression coefficients indicate the relative

weight of the independent variables in the prediction of job engagement, and the independent variables show significant indices in the prediction of job engagement, with social characteristics being the most important predictor of job engagement, having almost the same weight as task characteristics. These results indicate that social support, interaction between people, feedback and age are important aspects for organizations to have more engaged workers.

These results corroborate research done by Porto, Oliveira-Silva and Martins (2019) who discuss the importance of task characteristics, knowledge and social support in work engagement, while Magnan, Amorim, Machado and Oliveira (2020) reported that task characteristics explain engagement at work, but the knowledge, social and ergonomic aspects were not significant. Regarding to age, Gostoutaite and Buciuiniene (2015) found that older workers are more engaged at work, and suggested that researchers and companies should review organizational policies in order to minimize stereotypes and help build a positive vision of older employees' potential. With the constant changes in the labor market, it is important to emphasize that when workers have autonomy, they present change-oriented coping strategies, increasing engagement at work (De Spiegelaere et al., 2015) and physical, psychological, social and organizational work are essential elements for the engagement in work and healthy development of organizations (Bakker et al., 2014; Rodriguez-Montalbán et al., 2014). In addition, job engagement is negatively correlated with the intention of turnover, that is, low job engagement increases the worker's desire to leave the company (Oliveira & Rocha, 2017; Zang et al., 2015).

Figure 1
 Predictive model of independent variables (characteristics of knowledge, characteristics of the task, social characteristics and age) on work engagement and turnover intention



The results of the regression analysis for the dependent variable turnover intention indicate that the model was significant in predicting the variance of this consequent variable in the sample studied. This model used as independent variables knowledge characteristics, task characteristics and social characteristics that together explained 13,1% of the variance of the dependent variable ($F= 14,46$; $gl= 4$, $p<0,001$).

Regression coefficients indicate the relative weight of the independent variables in predicting turnover intent and are expressed in Figure 1. Two of the predictors predict the variable criterion inversely and significantly, the most important being the characteristics of the task. These results corroborate the research by Dysvik and Kuvaas (2013), in which work autonomy (task characteristics) contributes to a decrease in the level of turnover intention, when there is leadership support (social characteristics).

These data corroborate researches (Agarwal, & Gupta, 2018; Kaddourah, Abu-Shaheen, & Al-Tannir, 2018) that reported that perceptions of work, social support, work context, relationships with people outside of the organization and leadership styles characteristics affect the intention of turnover.

The results also point out that the age variable negatively predicts the intention to rotate, indicating that age is an important factor, not only in the worker's engagement, but also reduces the intention to leave the company. These data confirm research of Oliveira and Rocha (2017), that found a negative correlation between age and intent to turnover, indicating that as the age advances, decrease the intentions to leave the company.

As for the knowledge characteristics, these did not present significant indices in predicting turnover intent, but further study is needed to verify these results. According to Parker et al. (2017), simplified work can limit motivation and reduce the prospect of growth within the organization, and knowledge characteristics involve work complexity, information processing, problem solving, variety of tasks and performing specialized tasks.

According to the results of the regression analysis, it can be stated that the model tested in this research (Figure 1) was significant in predicting the variance of work engagement and the intention to rotate the studied sample. Work Design Scale factors (Knowledge Characteristics, Task Characteristics, and Social Characteristics) are direct predictors of job engagement, just as task characteristics and social characteristics are inverse predictors of turnover intent.

Final considerations

This study achieved its main objective to analyze the predictability of work design on job engagement and turnover intention, and to verify the correlations between work design factors, and some differences between groups of different schooling and different types of work bond. The results indicate that the work design predicts both criterion variables. This research brings relevant indications to researchers and companies seeking a theoretical-methodological maturation within the field of organizational and work psychology, as well as administration, since work design, with all its facets, can affect the engagement of the worker and their intention to leave the organization.

The fact that the employee perceives social support, an interaction outside the organization and has feedback on their performance increases their energy, dedication and absorption with the work, that is, their engagement at work and diminishes their intention to leave the company. Analyzing the above results is of paramount importance

for companies to retain their talent, improving the organizational climate and minimizing financial impacts through training and staff development.

The results of this research indicate that work design acts as an antecedent in organizations for indicators in the area of people management and is related to work responsibilities and relationships and how the worker is organized in relation to their activities, tasks and content they need to get their work done, thus affecting work engagement and the intention to leave the company (Oliveira & Rocha, 2017; Agarwal, & Gupta, 2018). That is, work design is recognized as a key antecedent of key variables in the field of organizational and work psychology and administration, including, in addition to job engagement and turnover intent, well-being and job satisfaction, presentism, job satisfaction, proactivity, organizational commitment, among others, as pointed out in the studies by Parker et al. (2017).

The results achieved in this research show ways to be deepened to deepen and test the model with more complex analyzes, such as work design and its relations with the various phenomena that encompass the world of work, such as quality of life at work, stress. at work, proactivity, among others, in order to gain a better understanding of the influences that the characteristics of the task, the context of the work, the knowledge needed to perform its activities and how the support of others is important and sometimes intrinsic, in the development and performance of employees in organizations.

Work design is a promising predictor to be explored, as it seems to affect the individual, groups and macro organizational dimensions, with impacts on workers' physical and mental health, productivity, and teamwork, work engagement, turnover intent and so many other spheres.

It is recognized as limitations of this study some biases of the sample such as the predominance of higher-level workers, which is not characteristic of the Brazilian population, bias caused by the collection methods, the youth of the participants and the predominance of single individuals. Another limitation was the small complexity of the tested model that did not include all dimensions of the work drawing model. Therefore, it is suggested that further studies be dedicated to testing predictors of engagement and turnover intent with all dimensions of work design in the context of the pandemic caused by COVID-19 worldwide. Another suggestion for further studies is to carry out confirmatory testing of the model, exploring different work environments and expanding the sample's educational variability.

The results of this study suggest that work design benefits both the worker and the organization. Engaged workers are healthier, more energetic, more dedicated to work, more focused. In addition, the studied dimensions of work design also contribute to the low intention to leave the organization. Thus, organizations can effectively manage these three dimensions of work design to improve employee engagement and diminish their intention to leave the organization, increasing the positive aspects of vigor, energy, and dedication at work, and reducing costs and other losses resulting from craving of leaving, often turned into actual shutdown.

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