







FACTORS ASSOCIATED WITH WORK ENGAGEMENT OF CIVIL SERVANTS IN SOUTHERN BRAZIL

FATORES ASSOCIADOS AO ENGAJAMENTO NO TRABALHO DE SERVIDORES PÚBLICOS DO SUL DO BRASIL

FACTORES ASOCIADOS A LA COMPROMISO LABORAL DE LOS SERVIDORES PÚBLICOS EN EL SUR DE BRASIL

 Juliana Dal Ongaro¹
 Patrícia Bitencourt Toscani Greco²
 Bruna Xavier Morais¹
 Gabrieli Rossato¹
 Rafaela Andolhe¹
 Tânia Solange Bosi de Souza Magnago¹

¹Universidade Federal de Santa Maria, Departamento de Enfermagem. Santa Maria, RS - Brazil.

²Universidade Regional Integrada do Alto Uruguai e das Missões, Departamento de Enfermagem. Santiago, RS - Brazil.

Corresponding Author: Tânia Solange Bosi de Souza Magnago

E-mail: tania.magnago@ufsm.br

Authors' Contributions:

Conceptualization: Juliana D. Ongaro; **Data Collection:** Juliana D. Ongaro, Patrícia B. T. Greco, Bruna X. Morais, Gabrieli Rossato; **Funding Acquisition:** Juliana D. Ongaro, Tânia S. B. S. Magnago; **Methodology:** Juliana D. Ongaro, Tânia S. B. S. Magnago, Rafaela Andolhe, Patrícia B. T. Greco; **Project Management:** Tânia S. B. S. Magnago; **Resources Management:** Juliana D. Ongaro, Tânia S. B. S. Magnago; **Statistical Analysis:** Juliana D. Ongaro, Tânia S. B. S. Magnago; **Supervision:** Tânia S. B. S. Magnago; **Visualization:** Juliana D. Ongaro, Tânia S. B. S. Magnago; **Writing – Original Draft Preparation:** Juliana D. Ongaro; **Writing – Review and Editing:** Juliana D. Ongaro, Patrícia B. T. Greco, Bruna X. Morais, Gabrieli Rossato, Tânia S. B. S. Magnago, Rafaela Andolhe.

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 Tânia Couto Machado Chianca

ABSTRACT

Objective: to analyze the factors associated with work engagement among employees of a public educational institution. **Method:** this is a cross-sectional study conducted in 2018, involving 526 employees of a university located in the state of Rio Grande do Sul, Brazil. Sociodemographic variables related to work, lifestyle habits, and health were collected, and the Utrecht Work Engagement Scale was also applied. Descriptive statistical analysis was performed using absolute (n) and relative (%) frequency, and inferential analyses were performed using Poisson regression (crude and adjusted). **Results:** a total of 234 professors and 287 healthcare professionals participated. A predominance of low levels of work engagement (39.7%), moderate levels of vigor (39.3%) and dedication (38.5%), and low levels of absorption (37.1%) were observed. The highest prevalences of low engagement were found among workers in the age groups of 18 to 28 years (PR = 1.10; 95%CI = 1.03-1.17) and 29 to 39 years (PR = 1.06; 95%CI = 1.00-1.13), when compared to those aged 40 years or older, and among workers with weekly workload of 30 (PR = 1.08; 95%CI = 1.02-1.15) and 36 hours (PR = 1.06; 95%CI = 1.01-1.12), compared to those who work 20 to 24 hours per week. **Conclusion:** among the factors analyzed, age (18 to 39 years) and workload (30 to 36 hours per week) were associated with low work engagement.

Keywords: Faculty; Work Engagement; Health Personnel; Occupational Health; Public Sector.

RESUMO

Objetivo: analisar os fatores associados ao engajamento no trabalho de servidores de uma instituição pública de ensino. **Método:** trata-se de um estudo transversal, conduzido no ano de 2018, envolvendo 526 servidores de uma universidade localizada no estado do Rio Grande do Sul, Brasil. Foram coletadas variáveis sociodemográficas, relacionadas ao trabalho, hábitos de vida, saúde e também foi aplicada a Escala Utrecht de Engajamento no Trabalho. A análise estatística descritiva foi realizada por meio da frequência absoluta (n) e relativa (%), e análises inferenciais foram efetuadas utilizando-se a regressão de Poisson (bruta e ajustada). **Resultados:** houve a participação de 234 docentes e 287 profissionais da saúde. Foi observado um predomínio de baixo nível de engajamento no trabalho (39,7%), nível moderado de vigor (39,3%) e dedicação (38,5%), e baixo nível de absorção (37,1%). As prevalências mais elevadas de baixo engajamento foram encontradas entre trabalhadores nas faixas etárias de 18 a 28 anos (RP=1,10; IC95%=1,03-1,17) e de 29 a 39 anos (RP=1,06; IC95%=1,00-1,13), quando comparados àqueles com idade de 40 anos ou mais, e entre trabalhadores com cargas horárias semanais de 30 (RP=1,08; IC95% = 1,02-1,15) e 36 horas (RP = 1,06; IC95% = 1,01-1,12), em comparação àqueles que trabalham de 20 a 24 horas semanais. **Conclusão:** entre os fatores analisados, a idade (18 a 39 anos) e a carga horária (30 a 36 horas semanais) mostraram-se associadas ao baixo engajamento no trabalho.

Palavras-chave: Docentes; Engajamento no Trabalho; Pessoal de Saúde; Saúde Ocupacional; Setor Público.

RESUMEN

Objective: analizar los factores asociados al compromiso laboral de los empleados de una institución educativa pública. **Método:** se realizó un estudio transversal en 2018 con 526 empleados de una universidad brasileña del Estado de Rio Grande do Sul. Se recopilaron datos sociodemográficos, laborales, de hábitos, de salud y de la Escala de Compromiso Laboral de Utrecht, utilizando análisis estadístico descriptivo, con frecuencia absoluta (n) y relativa (%) e inferencial mediante regresión de Poisson (bruta y ajustada). **Resultados:** participaron 234 docentes y 287 profesionales de la salud. Predominaron los niveles bajos de compromiso laboral (39,7%), los niveles moderados de vigor (39,3%) y dedicación (38,5%), y los bajos niveles de absorción (37,1%). Se observaron mayores prevalencias de bajo compromiso entre los trabajadores de 18 a 28 años (RP=1,10; IC95%=1,03-1,17) y de 29 a 39 años (RP=1,06; IC95%= 1,00-1,13) en comparación con los de 40 años o más, y entre aquellos con una jornada laboral semanal de 30 (RP=1,08; IC 95% = 1,02-1,15) y 36 horas (RP = 1,06; IC 95% = 1,01-1,12) en comparación con quienes trabajan de 20 a 24 horas semanales. **Conclusión:** entre los factores analizados, la edad (18 a 39 años) y la jornada laboral (30 a 36 horas) se asociaron significativamente con un bajo compromiso laboral.

Palabras clave: Docentes; Compromiso Laboral; Personal de Salud; Salud Laboral; Sector Público.

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INTRODUCTION

In recent years, the Brazilian public sector has undergone significant changes with the pension and labor reforms. These changes resulted from the updating of the new pension rules⁽¹⁾ and the budget cuts imposed by Constitutional Amendment No. 95, which limits spending for the next 20 years. Such changes may affect the motivation of workers, since those hired through civil servant examinations seek stability in their employment relationship, a characteristic traditionally associated with public service⁽²⁾.

In general, the value of work in people's lives is highlighted, as it is responsible for conferring identity and social status. Thus, work is seen as a source of pleasure and well-being⁽³⁾, satisfaction, professional fulfillment and improvement in quality of life⁽⁴⁾. However, when performed under inadequate conditions, such as long workload, mental fatigue and lack of institutional support, it can contribute to the emergence of health problems among workers. Among these problems, burnout, minor psychological disorders and moral distress stand out⁽⁵⁻⁷⁾.

These problems can sometimes influence worker engagement⁽¹⁾ and, consequently, lead to harm to their occupational health⁽⁴⁾. Low work engagement is an alarming indicator. In this situation, workers may become ill due to job dissatisfaction and the physical and emotional exhaustion experienced in meeting their demands⁽⁴⁾.

Work engagement emerged within the scope of Positive Psychology, aiming to promote the psychological well-being of workers. It is defined as a positive and satisfactory motivational construct, characterized by the triad of vigor, dedication and absorption⁽⁸⁾. Vigor is related to the level of energy and mental resilience, as well as the willingness to invest effort in work, even in the face of difficulties; dedication refers to the significance, enthusiasm, inspiration, pride and challenges encountered in the work environment; and absorption is characterized by the worker's state of concentration and deep immersion in their tasks⁽⁸⁾.

Research shows that engaged workers express feelings of gratitude, joy and enthusiasm; they focus and dedicate their skills and energy resources to the demands of the job, thus contributing to organizational and personal success⁽⁹⁻¹¹⁾. They describe tiredness as a state of pleasure and gratitude, associating it with success and desired professional achievement⁽⁹⁾, in addition to showing better conditions to perform their tasks and a lower probability of facing suffering in the workplace^(12,13). Additionally, the level of engagement may vary throughout a career, which may be related to the circumstances experienced by the

worker, as well as the resources and challenges present in the organizational context⁽¹⁴⁾.

In research carried out in March 2024, using databases such as the Virtual Health Library, Latin American and Caribbean Literature in Health Sciences and the Medical Literature Analysis and Retrieval System Online, studies were identified with healthcare professionals, including physiotherapists⁽¹⁵⁾, medical team and nurses in private healthcare units, and nursing professionals⁽¹⁶⁻¹⁸⁾. Studies indicate that the demand for productivity is associated with decreased work engagement,⁽¹⁵⁾ moderate engagement is related to work and sociodemographic characteristics⁽¹⁶⁾; having satisfactory levels of quality of life⁽¹⁷⁾ and working conditions⁽¹⁸⁾ positively influences high engagement⁽¹⁷⁾; and there is a need for attention and support to maintain high levels of engagement among nursing professionals, since this influences the quality of care provided⁽¹⁸⁾.

Therefore, a scientific gap is identified in the investigation of work engagement among civil servants, especially those working in education at different levels and healthcare professionals in hospital environments. Furthermore, it is highlighted that engagement represents one of the positive aspects in the work context, favoring the well-being and quality of life of the worker, which justifies the expansion of studies on the subject in different populations, expanding the scope beyond the categories already investigated in the scientific literature and allowing a more comprehensive perspective on well-being at work. Thus, this study aimed to analyze the factors associated with the work engagement of employees of a public educational institution in the State of Rio Grande do Sul.

METHOD

A cross-sectional epidemiological study was carried out in eight higher education university units, including technical and technological colleges, an early childhood education unit and the university hospital of a public educational institution in the state of Rio Grande do Sul, Brazil.

The population covered a total of 2,866 professors (covering elementary, technical, undergraduate and postgraduate education) and healthcare professionals working in the public sector. The sample size calculation was performed using an estimated percentage of 50%, a 5% sampling error of 5% and a 5% significance level. The sample, random and carried out by drawing lots, was stratified by center/location, resulting in the participation of 526 civil servants in the study, of which 234 were professors and 287 were healthcare professionals.

As inclusion criteria, it was defined that participants should be professors from one of the teaching units of the university under research or healthcare workers at the university hospital (doctors, nurses, nursing technicians, physiotherapists, speech therapists, pharmacists, social workers, dentists, psychologists or nutritionists). Workers on sick leave or other types of absence during the data collection period were excluded, as well as those with less than one year of employment at the institution.

For data collection, training was carried out with collectors (doctoral students, master's students and scientific initiation scholarship holders) coordinated by the person responsible for the matrix project. Data collection took place from April to July 2018, covering the morning, afternoon and evening shifts, to include participants working in different work shifts. Recruitment was done randomly (by drawing lots), individually and in the workplace, stratified by educational center and, at the hospital, by professional category, according to the availability of the participants. It is important to highlight that all participants read and signed the Free and Informed Consent Form, in two copies, guaranteeing the confidentiality and secrecy of the interviews.

The self-administered questionnaire contained socio-demographic variables (date of birth; gender; marital status; race; and profession), work variables (highest qualification; time since graduation, in years; and weekly workload) and habits and health variables (smoking; alcohol consumption; pathologies diagnosed by a doctor; use of continuous medication; medical and psychological care in the last year; and time dedicated to leisure). The variables selected in the sociodemographic, work, and habits and health categories were considered relevant to the topic addressed^(16,18). To assess work engagement, the Brazilian version of the Utrecht Work Engagement Scale – UWES(4) was used, consisting of 17 items, divided into three dimensions: vigor (six items), dedication (five items) and absorption (six items). Responses were organized on a seven-point Likert scale, ranging from 'never' (0) to 'always/every day'⁽⁶⁾.

The data were entered into the Epi-info® program, version 6.4; for quality control, independent double entry was performed. After correction of errors and inconsistencies, the data were analyzed in the PASW Statistics® program (Predictive Analytics Software, SPSS Inc., Chicago, USA) version 18.0.

Categorical variables were described by absolute (n) and relative (%) frequencies. To analyze the raw UWES score, the responses obtained were added and divided by the total number of items. Similarly, the scores by

dimension (Vigor, Dedication and Absorption) were calculated by adding the responses to the corresponding questions and dividing them by the total number of items in the dimension evaluated⁽⁴⁾. After calculating the raw score for engagement and its dimensions, the results were interpreted using the mean percentile value.

For characterization in levels, percentile values below 40 are considered indicative of low engagement; values between 40 and 74 are considered indicative of moderate engagement; and percentiles equal to or greater than 75 are considered indicative of high engagement. Furthermore, following the UWES validation model⁽⁴⁾, the age range was categorized into three pre-defined groups: beginning of working life (18 to 28 years old), professional development (29 to 39 years old) and career consolidation (40 years old or older).

In the bivariate analyses, Pearson's Chi-Square test and Pearson's test with correction, when necessary, were applied. For variables with three or more categories, the value of the standardized adjusted residuals was used to identify the category statistically associated with the outcome ($p < 0.05$).

In the multivariate analysis, crude (cPR) and adjusted (ajPR) Poisson regressions for confounding factors were used. Possible confounding variables were those with a p -value ≤ 0.150 in the bivariate analysis between exposures (sociodemographic, work, habits and health variables) and the outcome (work engagement), and a p -value ≤ 0.150 was required for inclusion in any of the models. The measure of association used was the Prevalence Ratio (PR) and its respective confidence intervals (95%CI). In all analyses, an association was considered statistically significant when $p < 0.05$.

The research was approved by the Research Ethics Committee on June 14, 2017, and it is in line with the determinations of Resolution No. 466/2012 of the National Health Council

RESULTS

A total of 526 civil servants participated in the study. There was a predominance of female workers ($n=340$; 64.6%), aged 40 or over ($n=294$; 58.3%), married ($n=278$; 52.9%) and who self-declared as white ($n=483$; 92.2%). Regarding the professional category, professors stood out ($n=239$; 45.4%), followed by nursing technicians ($n=89$; 16.9%) and nurses ($n=62$; 11.8%). The main educational background obtained was a postgraduate degree ($n=454$; 86.3%).

Workers with a weekly workload of 40 to 44 hours ($n=301$; 57.3%) and with 12 to 22 years of professional

training (n=180; 37.1%) prevailed. It was found that a large proportion of workers had never smoked (n=425; 81%), consumed alcoholic beverages occasionally (n=349; 66.3%), and had occasional leisure time (n=256; 48.7%). Furthermore, the presence of pathologies (n=365; 69.9%), use of medication (n=335; 64.2%) or need for psychological care in the last year (n=405; 77%) was not reported. However, there was a need for medical care in the last year (n=270; 51.6%).

Civil servants showed a low level of engagement at work (n=207; 39.7%). In the different domains, percentages were observed for a moderate level of vigor (n=206; 39.3%) and dedication (n=202; 38.5%), and a low level of absorption (n=194; 37.1%).

Bivariate analyses of statistically significant associations with levels of work engagement (low, moderate and high) are presented in Table 1.

As shown, workers aged 18 to 28 years demonstrated a statistically significant association ($p<0.0001$) with a low level of work engagement (71.4%), compared to those aged 40 years or older (35.9%). Workers with a weekly workload of 30 hours (52.6%) and those with 12 to 22 years of training (46.7%) also showed a statistically significant association ($p=0.001$; $p<0.0001$, respectively) for the low level of engagement at work, when compared to those who work 20 to 24 hours per week (31.9%) and those with 23 to 40 years of training (26.1%), respectively. Those who reported having some pathology (47.4%), need

Table 1 – Presentation of bivariate analysis of variables and work engagement. Santa Maria/ RS, 2018.

Variables	Work engagement						P
	Low		Moderate		High		
	n	%	n	%	n	%	
Age range							<0.0001*
18 to 28 years	10	71.4	2	14.3	2	14.3	
29 to 39 years	88	44.9	52	31.6	46	23.5	
40 or more years	104	35.9	78	26.9	108	37.2	
Workload							0.001**
20 to 24 hours	96	31.9	90	29.9	115	38.2	
30 hours	41	52.6	23	29.5	14	17.9	
36 hours	59	50.0	29	24.6	30	25.4	
40 to 44 hours	11	44.0	6	24.0	6	32.0	
Time since graduation							<0.0001**
Up to 11 years	63	45.3	42	30.2	34	24.5	
12 to 22 years	84	46.7	42	23.3	54	30.0	
23 to 40 years	43	26.1	53	32.1	32.1	41.8	
Pathology							0.046
No	131	36.2	11	30.7	120	33.1	
Yes	74	47.4	36	23.1	46	29.5	
Psychological care							0.037
No	148	36.7	118	29.3	137	34.0	
Yes	59	49.6	30	25.2	30	25.2	
Medical care							0.009
No	83	33.1	76	30.3	92	36.7	
Yes	123	45.9	71	26.5	74	27.6	

Observation: * Pearson's Chi-Square Test with Correction, ** Pearson's Chi-Square Test. For variables with three or more categories, the value of the standardized adjusted residuals was used to identify the category statistically associated with the outcome ($p<0.05$). Source: Research data, 2018.

for medical care (45.9%) and psychological care (49.6%) in the last year showed statistically significant differences ($p=0.046$; $p=0.009$; $p=0.037$, respectively) for low levels of engagement at work, when compared to those who do not have pathologies (36.2%), those who did not need medical care (36.7%) and those who did not need psychological care (33.1%).

It was shown that workers aged 18 to 28 years showed a statistical association ($p<0.0001$) for moderate level of vigor (57.1%) and low level of absorption (64.3%), compared to those aged 40 years or older (37.7% and 30.6%, respectively). Those who reported belonging to another ethnicity showed a statistically significant

association ($p=0.010$) for low levels of vigor (53.7%), compared to those of white ethnicity (32.0%). Workers subjected to a workload of 30 hours per week revealed a statistically significant association ($p=0.001$) for low levels of absorption (51.9%) when compared to those working 20 to 24 hours per week (29.2%). Individuals with up to 11 years since graduation (43.2%) showed a statistically significant association with a moderate level of vigor ($p<0.0001$) and dedication ($p=0.049$), in addition to a low level of absorption (43.9%, $p=0.002$), compared to workers between 23 and 40 years since graduation (37.6%, 38.2% and 24.8%, respectively).

Table 2 presents the bivariate analyses of the variables and domains of work engagement (vigor, dedication and absorption).

Variables	Vigor						p
	Low		Moderate		High		
	n	%	n	%	n	%	
Age range							<0.0001*
18 to 28 years	6	42.9	8	57.1	-	-	
29 to 39 years	77	39.3	80	40.8	39	19.9	
40 or more years	89	30.5	110	37.7	93	31.8	
Ethnicity							0.010***
White	154	32.0	191	39.7	136	28.3	
Other*	22	53.7	14	34.1	5	12.2	
Workload							0.064***
20 to 24 hours	86	28.6	124	41.2	91	30.2	
30 hours	31	38.8	33	41.3	16	20.0	
36 hours	49	41.5	43	36.4	26	22.0	
40 to 44 hours	10	40.0	6	24.0	9	36.0	
Time since graduation							<0.0001***
Up to 11 years	52	37.4	60	43.2	27	19.4	
12 to 22 anos	71	39.4	71	39.4	38	21.1	
23 to 40 years	39	23.6	62	37.6	64	38.8	
Medical care							0.002
No	67	26.6	103	40.9	82	32.5	
Yes	108	40.1	102	37.9	59	21.9	
Psicological care							0.017
Não	124	30.7	161	39.9	119	29.5	
Sim	52	43.3	45	37.5	23	19.2	

Variáveis	Dedication						p
	Low		Moderate		High		
	n	%	n	%	n	%	
Age range							0.078**
18 to 28 years	7	50.0	5	35.7	2	14.3	
29 to 39 years	70	35.7	78	39.8	48	24.5	
40 or more years	94	32.2	110	37.7	88	30.1	
Ethnicity							0.0190***
White	157	32.6	182	38.2	139	28.9	
Other*	18	43.9	16	39.0	7	17.1	
Workload							0.246***
20 to 24 hours	91	30.2	115	38.2	95	31.6	
30 hours	33	41.8	26	32.9	20	25.3	
36 hours	42	35.3	52	43.7	25	21.0	
40 to 44 hours	9	36.0	9	36.0	7	28.0	
Time since graduation							0.049***
Up to 11 years	45	32.4	60	43.2	34	24.5	
12 to 22 anos	61	39.4	62	34.4	47	26.1	
23 to 40 years	44	26.7	63	38.2	58	35.2	
Medical care							0.162
No	74	29.5	100	39,8	77	30.7	
Yes	100	37.0	101	37.4	69	25.6	
Psicological care							0.002
Não	120	29.8	158	39.2	125	31.0	
Sim	55	45.5	44	36.4	22	18.2	

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Table 2 - Bivariate analysis of variables and dimensions of work engagement, vigor, dedication and absorption. Santa Maria/RS, Brazil, 2018.

Santa Maria/ RS, Brazil, 2010.							
Variables	Absorption						p
	Low		Moderate		High		
	n	%	n	%	n	%	
Age range							<0,0001**
18 to 28 years	9	64.3	4	28.6	1	7.1	
29 to 39 years	91	46.4	65	33.2	40	20.4	
40 or more years	89	30.6	114	39.2	88	30.2	
Ethnicity							0,052***
White	172	35.8	179	37.2	130	27.0	
Other*	22	55.0	11	27.5	7	17.5	
Workload							0.001***
20 to 24 hours	88	29.2	117	38.9	96	31.9	
30 hours	41	51.9	25	31.6	13	16.5	
36 hours	54	45.8	39	33.1	25	21.2	
40 to 44 hours	11	44.0	10	40.0	4	16.0	
Time since graduation							0.002***
Up to 11 years	61	43.9	49	35.3	29	20.9	
12 to 22 anos	78	43.3	56	31.1	46	25.6	
23 to 40 years	41	24.8	72	43.6	52	31.5	
Medical care							0.069
No	83	32.9	104	41.3	65	25.8	
Yes	110	41.0	86	32.1	72	26.9	
Psicological care							0.992
Não	150	37.1	147	36.4	107	26.5	
Sim	44	37.0	44	37.0	31	26.1	

Observation: *black, brown, yellow and indigenous; ** Pearson's Chi-Square Test with Correction, *** Pearson's Chi-Square Test. For variables with three or more categories, the value of the standardized adjusted residuals was used to identify the category statistically associated with the outcome ($p < 0.05$). Source: Research data, 2018.

Regarding those who reported not having sought medical care (40.9%), they presented a moderate level of vigor ($p = 0.002$) compared to those who needed care (37.9%). Furthermore, those who reported having sought psychological care showed an association with a low level of vigor (43.3%, $p = 0.017$) and low dedication (45.5%, $p = 0.002$), in contrast to those who did not need it (30.7% and 29.8%, respectively).

The crude and adjusted associations between work engagement and potential confounding factors, such as

gender, age range, qualification, time since graduation, workload, pathologies, medical and psychological care, are detailed in Table 3.

After the adjusted analysis, clearly civil servants aged 18 to 28 and 29 to 39 years old presented, respectively, a 10% and 6% higher prevalence of low work engagement, when compared to those aged 40 years or older. Similarly, civil servants who work 30 and 36 hours per week registered 8% and 6% higher prevalence of low work engagement, respectively, compared to those working 20 to 24 hours per week.

DISCUSSION

Of the 526 study participants, 207 (39.7%) workers had low levels of work engagement. This result also demonstrated that younger civil servants have a higher prevalence of low work engagement, compared to those aged 40 or older. Similarly, civil servants working 30 and 36 hours per week exhibited higher prevalences of low engagement, in contrast to those working 20 to 24 hours.

The findings of this study are considered harmful and may negatively affect the health of workers, especially in relation to psychological aspects^(19,20) and reduced commitment to their demands⁽²⁰⁾. Previous research has indicated that the main obstacles to work engagement among civil servants are excessive workload and lack of preparation to occupy leadership positions⁽¹³⁾.

These results lead to the reflection that the public sector, in recent decades, has faced structural and governmental changes, showing deficiencies in the face of the demands of daily work. In addition, changes that directly affect workers, such as the update of the rules of the social security system, which brought significant modifications to retirement criteria and minimum contribution time⁽¹⁾, are particularly notable.

Another study sought to identify elements that generate satisfaction and dissatisfaction within the public service, finding that salary, working conditions and availability of materials were the most mentioned as sources of dissatisfaction⁽²¹⁾. Likewise, professional qualifications, lack of replacement of personnel, high turnover, the physical environment, workload and professional recognition were also indicated as factors of dissatisfaction in the public service⁽²¹⁾.

In view of this, it is considered that an environment without adequate conditions of resources (financial, material and human, for example) for carrying out work activities can contribute to low engagement. In this context, a study identified that work resources, work demands and individual resources are associated with engagement⁽²²⁾.

Table 3 – Crude and adjusted analyses of the association between work engagement and gender, age group, degree, time since graduation, workload, pathology, medical and psychological care. Santa Maria, RS, Brazil, 2018.

Variáveis	RPb	IC 95%)	RPaj1†	IC 95%)	RPaj2‡	IC 95%)	RPaj3§	IC 95%)
Gender								
Female	1.05	1.00-1.11	1.03	0.98-1.63	-	-	-	-
Male	1	-	1	-	-	-	-	-
Age Range††								
18 to 28 years	1.13	1.06-1.19	1.12	1.06-1.19	1.17	1.04-1.33	1.10	1.03-1.17
29 to 39 years	1.08	1.02-1.15	1.08	1.02-1.15	1.11	0.99-1.25	1.06	1.01-1.13
≥40 years	1	-	1	-	1	-	1	-
Education background								
Post-graduation	1.01	0.93-1.10	1.12	1.01-1.25	-	-	-	-
Graduation	1.01	0.88-1.17	1.05	0.89-1.24	-	-	-	-
Technical	1	-	1	-	-	-	-	-
Time since graduation								
até 11 anos	1.11	1.04-1.18	1.08	1.01-1.17	0.91	0.80-1.05	-	-
12 a 22 anos	1.07	1.01-1.14	1.06	1.00-1.13	0.95	0.84-1.07	-	-
23 a 48 anos	1	-	1	-	1	-	-	-
Workload								
30 hours	1.12	1.06-1.19	1.16	1.07-1.27	1.08	1.00-1.16	1.08	1.02-1.15
36 hours	1.07	1.02-1.14	1.08	1.02-1.15	1.07	1.00-1.13	1.06	1.01-1.12
40 to 44 hours	1.03	0.92-1.16	1.04	0.92-1.18	1.04	0.93-1.16	1.03	0.93-1.15
20 to 24 hours	1	-	1	-	-	-	-	-
Pathology								
Yes	1.02	0.97-1.07	1.01	0.96-1.06	-	-	-	-
No	1	-	1	-	-	-	-	-
Medical care								
Yes	1.05	1.00-1.10	1.04	0.99-1.09	1.04	0.99-1.10	1.04	0.99-1.09
No	1	-	1	-	1	-	-	-
Psychological care								
Yes	1.05	0.99-1.11	1.03	0.98-1.09	-	-	-	-
No	1	-	1	-	-	-	-	-

cPR: Crude Prevalence Ratio. ajPR: Adjusted Prevalence Ratio. 95%CI: Confidence Interval. Observation: ajRP1† = engagement + gender + age range + degree + time since graduation + workload + pathology + medical care + psychological care. ajRP2‡ = engagement + age group + time since graduation + workload + medical care. ajRP3§ = engagement + age group + workload + medical care. The cutoff point for variables to enter the crude and adjusted models was p-value ≤0.150. Those with p-value <0.05 were considered statistically significant. Source: Research data, 2018.

Therefore, providing necessary and appropriate resources facilitates the fair and effective performance of civil servants, and these aspects are fundamental to promoting engagement⁽²⁾. Thus, for public sectors to promote and maintain high levels of engagement among employees, it is crucial to offer opportunities for growth, active and effective listening, and introduce challenges. In addition, professional recognition and interpersonal relationships (including the relationship between

professionals in the institution and the ability to work as a team) are factors that contribute to job satisfaction⁽²¹⁾.

Thus, it can be concluded that these are essential characteristics to promote a work environment less susceptible to physical and mental illness, improving the quality of life and engagement among workers. Studies show that quality of life, when promoted in the work context, increases worker proactivity, motivation and engagement^(13,23,24).

The civil servants analyzed in this study showed a moderate level of engagement in the Vigor and

Dedication domains, but a low level in the Absorption domain. Although the overall assessment of engagement was below ideal, the individual analysis of the domains revealed positive aspects from the workers' perspective. In other words, even though they face difficulties in concentrating on the demands of work, they still perceive, to a moderate extent, this environment as meaningful and motivating for inspiration and pride. Furthermore, they feel more willing to invest energy in their activities.

However, the low level of engagement demonstrated may signal a decrease in the forces expended and the concentration required to carry out their demands⁽⁴⁾. When this lack of control and energy for the development of work activities occurs, it can often be linked to the inadequacy of organizational and human resources, professional devaluation, high demands and long workload⁽¹⁹⁾.

Corroborating this panorama, within the scope of public teaching staff, it was identified that the high demand for activities, combined with physical and mental overload, have a negative impact on quality of life, leading to the emergence of psycho-emotional problems⁽²⁵⁾. Similarly, healthcare professionals also face health problems arising from the work environment, often reflecting poor working conditions, which make it difficult to carry out qualified and effective work practices. In these cases, the situation is aggravated by staff shortages and low salaries^(26,27).

The age range of employees was associated with low engagement. Younger employees demonstrated a higher prevalence of low engagement at work, which may indicate that these workers are generally in the process of adapting to the work environment, building their identity and professional career. Furthermore, uncertainties related to the job market often leave workers without the resources needed to face them and develop professionally, which can consequently be a factor in dissatisfaction with work activity.

This context is reiterated in a study with higher education professors from Brazilian institutions, showing that younger people occasionally face a lack of resources to develop the activities required by the current scenario, negatively impacting worker engagement⁽¹⁹⁾. Furthermore, limited experience, both professional and life, can act as a stressor and hinder the development of the capacity for engagement at work.

It is crucial to consider the compatibility between the worker's preferences and the resources that the environment offers⁽²⁸⁾. This means that young workers often find themselves searching for an ideal workspace that fulfills them professionally and is aligned with their aspirations,

beliefs and values. When these achievements are achieved in work practice, they favor a positive mental state, characteristic of an engaged worker.

In the study carried out in federal educational institutions in Brazil, it was found that professors aged up to 28 years and 40 years or older exhibited moderate engagement at work⁽¹⁹⁾. However, it is reflected that, even when fully consolidating their career, these individuals do not reach a high level of engagement, possibly related to physical and mental exhaustion, tiredness and lack of energy, given the teaching routine faced for years.

Similarly, a weekly workload of 30 and 36 hours also indicated a higher prevalence of low work engagement, when compared to a workweek of 20 to 24 hours. A longer workweek can cause physical or mental exhaustion, negatively impacting the worker's performance^(24,29).

Therefore, longer workload can distance workers from their family and social context, in addition to imposing greater physical demands, which can reduce dedication, concentration and energy in the face of work demands. However, the importance of social support is emphasized as a resource that helps in achieving goals, in mitigating the harmful impacts of the work environment⁽¹⁾, thus influencing worker engagement.

Based on studies on Brazilian labor reform, it was observed that a high workload generates negative impacts on both the quality of activities and the health of workers, due to physical and mental fatigue⁽³⁰⁾. According to an analysis of working conditions in the current scenario, many professional categories exceed their contractual weekly workload to carry out their work activities⁽²⁹⁾. In other words, the worker may have difficulty completing tasks within the stipulated working period. An example of this is teaching activities, which are often completed at home to meet deadlines, thus reducing time for rest and family and social interaction.

When it comes to healthcare professionals, many seek to reconcile another employment relationship, increasing their workload for personal or financial reasons^(6,26). Furthermore, the technological invasion (instant messaging applications, e-mail, social networks, etc.) reduces the boundaries between workload and free time, contributing to the manifestation of fatigue and demotivation⁽¹⁹⁾, which consequently can affect the energy, concentration and enthusiasm of the worker in their demands.

In this sense, organizational policies aimed at healthy work are necessary, which enable the revitalization of workers and professional achievement in achieving established goals⁽¹¹⁾. Likewise, government policies that aim at the well-being and satisfaction in the lives of individuals

are fundamental⁽¹¹⁾. Thus, to engage workers in the workplace, organizations must foresee greater flexibility, pay attention to overloads, provide feedback, improve the quality of resources and seek strategies to promote a healthy environment, benefiting both workers and institutions.

As a potential limitation of the study, it is worth highlighting that it was developed in a single institution, restricted to one Brazilian state, thus not allowing the comparison of the results obtained with other realities and peculiarities.

The evidence from this research offers important contributions to the field of healthcare, especially regarding worker health, since these professionals experience high exposure to factors that are potentially harmful to health. This condition can be a determining factor in reducing work engagement. However, it is important to highlight the productive potential of highly engaged workers, who demonstrate high energy, focus and motivation to perform their tasks and, consequently, have a lower chance of becoming ill. It is emphasized that both internal resources, coming from the worker himself/herself, and external resources, such as working conditions and environment, are necessary to increase engagement at work.

Furthermore, the study points to engagement at work as one of the positive aspects that influence well-being and quality of life. Therefore, it is crucial to reflect on strategies that promote employee engagement, including partnerships between healthcare services and the formulation of public policies in the workplace aimed at the health of workers, both in the public and private sectors. In addition, it is essential that institutions promote healthy work environments that provide more positive work performance.

For future research, it is suggested that intervention studies be carried out to evaluate strategies such as integration programs for new employees, continuing education services and monitoring of this population, with the aim of analyzing well-being, quality of life and engagement at work overtime.

CONCLUSION

A low level of work engagement was revealed among federal civil servants; a moderate level in the domains of Vigor and Dedication; and a low level in the domain of Absorption. The age group of 18 to 39 years and the workload of 30 to 36 hours per week showed a high prevalence of low work engagement, compared to those aged 40 or over and working workload of 20 to 24 hours per week, respectively.

It is important to understand the particularities of workers and the context in which they perform their activities, especially civil servants, who face challenges and uncertainties considering legal changes arising from new laws. From this perspective, the development of technical and behavioral skills is crucial to overcoming the challenges faced by these professionals. Additionally, identifying factors that promote quality and productivity, as well as contributing to employee engagement, is essential to ensuring the effectiveness of services, since the success of organizations is closely linked to the human energy of their employees.

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