



## THE WELL-BEING AT WORK SCALE: EVIDENCE OF ITS VALIDITY IN THE CONTEXT OF PUBLIC HEALTH

ESCALA DE BEM-ESTAR NO TRABALHO: EVIDÊNCIAS DE VALIDADE EM  
CONTEXTO DE SAÚDE PÚBLICA

ESCALA DE BIENESTAR EN EL TRABAJO: EVIDENCIAS DE VALIDEZ EN EL  
CONTEXTO DE SALUD PÚBLICA

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## RESUMO

Cada vez mais os pesquisadores têm voltado sua atenção para a avaliação do bem-estar no trabalho a partir da utilização de instrumentos de medida válidos e confiáveis, sobretudo a partir do crescimento dos estudos da Psicologia Positiva. Diante disso, o objetivo do presente estudo foi verificar as evidências de validade e a confiabilidade da escala de bem-estar no trabalho de Paschoal e Tamayo (2008). Este instrumento é composto pelos fatores: afeto positivo, afeto negativo e realização/expressividade. As análises dos principais eixos fatoriais, com 169 casos válidos, permitiram a extração de 3 fatores que, somados, explicam 62,55% da variância total. A partir da análise fatorial exploratória, o instrumento permaneceu com a mesma estrutura fatorial da escala original e todos os itens representaram significativamente cada fator. A escala apresentou altos índices de consistência interna e bons parâmetros psicométricos, podendo ser útil para o diagnóstico organizacional e para o planejamento de ações de gestão de pessoas, servindo para identificar os aspectos mais prejudiciais e os que mais contribuem para o bem-estar, levantando informações importantes que possam subsidiar futuras intervenções capazes de amenizar os afetos negativos e a percepção de pouca realização no trabalho.

**Palavras-chave:** Bem-estar no trabalho; Instrumento de medida; Evidências de validade; Confiabilidade.

## ABSTRACT

Researchers are increasingly turning their attention to the assessment of wellbeing at work through the use of valid and reliable scales, especially based on the growth of studies on Positive Psychology. This study examines the evidence of validity and reliability of the Well-being at Work Scale of Paschoal and Tamayo (2008). This instrument is composed of the following factors: positive affect, negative affect, and fulfilment/personal expression. Principal axis factoring, with 169 valid cases, indicated the extraction of 3 factors, which together account for 62.55% of the total variance. Exploratory factor analysis pointed to the same factorial structure as the original scale and all items significantly represent each factor. The scale presented high levels of internal consistency and good psychometric parameters, which can be useful for organizational diagnosis and planning of actions in human resources. The scale serves to identify the most harmful aspects and those that contribute to well-being, providing important information to support future interventions that can alleviate the negative affects and the perception of lack of accomplishment at work.

**Keywords:** Well-being at work; Scale; Evidence of validity; Reliability.

## RESUMEN

Cada vez más los investigadores han centrado su atención en la evaluación del bienestar en el trabajo con instrumentos válidos y fiables, especialmente del crecimiento de los estudios de psicología positiva. Por ello, el objetivo del presente estudio fue verificar las evidencias de validez y la fiabilidad de la escala de bienestar en el trabajo de Paschoal y Tamayo (2008). Este instrumento está compuesto por los factores: afecto positivo, afecto negativo y realización/expresividad. Los análisis de los principales ejes factoriales, con 169 casos válidos, permitieron la extracción de 3 factores que sumados explican el 62,55% de la variancia total. A partir del análisis factorial exploratorio, el instrumento permaneció con la misma estructura factorial de la escala original y todos los ítems representan significativamente cada factor. La escala presentó altos índices de consistencia interna y buenos parámetros psicométricos, y puede ser útil para el diagnóstico organizacional y para la planificación de acciones de gestión de personas, sirviendo para identificar los aspectos que contribuyen al bienestar, recabando información importante que puede subsidiar futuras intervenciones que pueden aliviar los efectos negativos y la percepción de poco logro en el trabajo.

**Palabras clave:** Bienestar en el trabajo; Instrumento de medida; Evidencias de validez; Fiabilidad.

## 1. INTRODUCTION

Historically, psychology as science and a profession has been criticized for its over-emphasis on negative experiences and mental illness, both in research and in practical interventions. Work and Organizational Psychology (WOP) did not initially direct its focus of interest towards promoting well-being at work; it was more concerned with investigating work-related aspects from a negative perspective. For example, focusing on the work environment as a source of suffering and the cause of physical and mental illness. Therefore, topics such as stress and burnout syndrome have been, and continue to be widely studied, not only in psychology but also in the field of business research (Jaques, 2015).

This article seeks to redress this imbalance by focusing on well-being at work through positive psychology, a field that received greater attention in 1998, when Martin Seligman, one of its great exponents, chose it as the theme for his term as president of the American Psychological Association. Notably, in 2000 the *American Psychologist Journal* published a special issue on positive psychology (Seligman, 2011).

Despite the growth in studies on positive psychology, there are still some gaps in the scientific production on the subject of well-being. A need was identified to develop theoretical and empirical models and tools for assessing the structure of well-being. Studies to investigate the variables correlated with this construct are also important, to enable an understanding of the many contexts through which well-being is supported. These gaps in the research on well-being may be due to difficulty categorizing phenomena as positive or negative. Many experiences involve a mixture of positive and negative elements and, consequently, it is not easy to understand the complex balance and harmonization between them (Lomas & Ivztan; 2016; Paschoal et al., 2013; Paschoal, Torres, & Porto, 2010).

In view of the above, reliable tools are needed to measure well-being. These provide valuable information that can serve as a basis for organizational diagnosis, and aid in the planning of people management actions to promote workers' health in different occupational sectors, including public health workers. It is important to bear in mind that work-related conditions and aspects can greatly contribute to decreasing well-being among health professionals and can be a direct cause of physical and psychological illnesses (Cipriano, Ferreira, Sevilha, & Marsiglia, 2013; Martins, Laport, Menezes, Medeiros, & Ronzani, 2014).

Increasing numbers of researchers and human resource managers are, therefore, turning their attention to well-being self-assessments, in order to evaluate the psychometric multidimensionality of this construct. Using these instruments, employees can accurately analyze their own levels of well-being at work (Morin et al., 2017). This study presents evidence of the validity of the Well-Being at Work Scale conceived by Paschoal and Tamayo (2008).

## 2. THEORETICAL FOUNDATION

In Brazil, scientific production in positive psychology is increasing, especially in the area of construction, adaptation, and validation of instruments. Among the most studied phenomena in the area, researchers have shown great interest in the subject of well-being, which has been the topic of many studies from the 1990s until today (Pires, Nunes, & Nunes, 2015).

From the beginning, positive psychology has sought knowledge about human strengths and virtues, considering that employees are decision-makers and not passive beings. It bases its theory on the premise that people involved with work can have positive experiences in their work environment and can, therefore, achieve well-being. The theoretical axis that studies the psychological foundations of well-being has shown great interest in organizational behavior. Therefore, researchers seeking to improve organizational performance have dedicated a great deal of interest to positive organizational concepts (Hunter, Wright, & Pearson, 2019; Kumari & Rastogi, 2017; Pureza, Kuhn, Castro, & Lisboa, 2012).

According to Silva, Borges and Barbosa (2015), there is divergence among researchers as to how this field of study should be organized. There are two perspectives: the hedonistic perspective, which defines well-being as the search for pleasure and removal of suffering – an approach that derives from the theoretical model of subjective well-being – and the eudaimonic perspective, which highlights human potential and sees well-being as the extent to which a person is able to function fully – an approach that derives from the theoretical model of psychological well-being.

Subjective well-being refers to how employees assess their own lives, both in the emotional sphere (positive and negative effects at work) and in the cognitive sphere (work satisfaction). There is, therefore, a correlation between emotional bonds with work and the organization and the prediction of increased productivity and decreased work accidents. Psychological well-being, on the other hand, refers to the human capacity to face challenges in the work environment, through engagement, growth, and motivation. The analysis of psychological well-being allows us to discover which of the cognitive domains are present in the employees' psychic forces and which, in turn, help them to remain strong and healthy. By identifying these strengths or potentials, people management actions can be strengthened, encouraging employees to recognize uncomfortable and compromising situations at work and make the necessary adjustments. (Diener, Oishi, & Lucas, 2015; Fisher, 2014; Siqueira & Martins, 2013).

Studies that address well-being in the context of work and organizations have shown some conceptual overlap with other variables, such as quality of life and happiness. These terms are often treated as synonymous (Sobrinho & Porto, 2012). Farsen, Boehs, Ribeiro, Bivalti and Silva (2018) distinguish quality of life as a variable that is more related to physical health and objective labor issues. On the other hand, well-being at work, and happiness, are more related to workers' emotions and feelings.

It is important to observe that there are several definitions of well-being at work, with no consensus between them. In general, it can be identified that the definitions are multidimensional. Well-being at work is essentially defined as satisfaction with different aspects of life and with different aspects of work. These aspects may involve physical, mental or emotional health, and also the quality of life of employees, hence, they include cognitive and affective elements, according to the definitions presented below (Table 1).

**Table 1**  
**Different concepts of well-being at work**

<b>Authors and year</b>	<b>Concepts</b>
Danna and Griffin (1999)	Views the individual as a whole; the concept implies satisfaction within different aspects of life and work.
DeJoy and Wilson (2003)	Refers to physical, mental and emotional aspects of employee health.
Van Horn, Taris, Schaufeli and Scherus (2004)	A multidimensional concept, converging to a positive assessment of affective, motivational, behavioral, cognitive and psychosomatic characteristics that involve the work context.
Sirgy (2006)	Refers to the state of satisfaction with life and job or even to other domains circumscribed by work.
Ferreira, Pacheco, Pinto, Fernandes and Silva (2007)	Consists of both the cognitive dimension, which is evaluated by work satisfaction, and the affective dimension, which is linked to positive effects directed at work.
Paschoal and Tamayo (2008)	The prevalence of positive emotions at work and the individual's perception that they are able to express themselves and develop their potential and skills, while advancing towards reaching their life goals.
Siqueira and Padovam (2008)	Consists of three dimensions: job satisfaction, work involvement and affective organizational commitment; they represent positive bonds within the individual's work and also with the organization.
Schulte and Vainio (2010)	Refers to the quality of life at work and goes beyond the state of health. It is the expression of satisfaction with life and work.

Source: Adapted from Ferreira, Souza and Silva (2012).

The definition of well-being used in this study is "the prevalence of positive emotions at work and the individual's perception that they are able to express themselves and develop their potential and skills, while advancing towards reaching their life goals (Paschoal and Tamayo 2008, p.6). The concept includes both affective aspects (i.e. emotions and moods) and cognitive aspects (perception of expressiveness and fulfillment), encompassing both perspectives of well-being: subjective well-being, related to the hedonic view of happiness that is measured by the experience of positive versus negative effects and perception of satisfaction with life; and to psychological well-being, referred as the eudaimonic view that is measured by the realization of personal potential and life goals.

We chose the concept of Paschoal and Tamayo (2008) not only because the authors are Brazilian, but because it includes cognitive and affective aspects. We consider this to be a comprehensive definition of the construct. Moreover, there is a tendency, in the international literature, to give priority to the affective, personal expression of well-being, and the dimension of fulfillment at work. This is because the hedonistic approach to well-being is based on judgments about the positive and the negative elements of life, while the eudaimonic approach to well-being takes into account the realization of one's life potential and goals.

As we understand it, well-being at work is the result of an individuals' experience in their work environment, and may vary over time and according to the context. Thus, well-being at work is closely related to employee variables such as stress levels within the work environment. Indeed, stress management tools can help employees sustain their sense of well-being at work, through the use of their natural regulatory processes (Hirschle, Gondim, Alberton, & Ferreira, 2019).

Studies show that well-being at work can be correlated with organizational variables, performance, the opportunity to realize personal values at work, the opportunity to use and develop one's own skills at work, and people management policies that include recognition programs, communication, support, and the participation of employees in organizational decision-making (Ilies et al., 2017; Loiola, Alves, & Siqueira, 2017; Kalshoven & Hartog, 2012; Paschoal, Estramiana, & Porto, 2015; Poli, 2013; Silva & Ferreira, 2013; Wright & Huang, 2012).

According to Sá and Demo (2014), people management policies should be developed to promote the well-being of people in organizations, as when employees feel they have been listened to, they feel more satisfied and valued and tend to perform better in the organization. Therefore, it is essential for organizations to promote employee recognition and give positive feedback. It is also important to encourage employees by creating positive affective bonds among co-workers (Sampaio, Gomide Junior, & Oliveira, 2019).

According to Couto and Paschoal (2012), actions to promote employee health offered by organizations are fundamental for increasing the levels of well-being at work, as such actions can minimize negative emotions and experiences that create stress. Thus, the well-being at work variable can contribute both to organizational development and to improving employee performance.

It is essential to have reliable instruments for measuring well-being, which can provide valuable information that can be used as the basis of an organizational diagnosis. This information can also be used for planning actions in people management, which is primarily aimed at promoting employee health across different occupational sectors, including public health professionals. But when it comes to health professionals, working conditions and other aspects generally contribute to decreasing their well-being, resulting in work-related physical and psychological illnesses (Cipriano, Ferreira, Sevilha, & Marsiglia, 2013; Martins, Laport, Menezes, Medeiros, & Ronzani, 2014).

### 3. METHOD

The research subjects were public health professionals enrolled in different distance learning postgraduate *lato sensu* healthcare courses offered by the Federal University of Minas Gerais. No distinction was made in relation to sex, length of service, or other characteristics. Participation was voluntary and the sampling method was non-probabilistic, i.e. non-random selection based on convenience criteria, as all the individuals who agreed to participate, and were available, were included, provided they met the inclusion criteria.

The measurement instrument consisted of questionnaires with questions related to the participant's personal and professional data and the application of the Well-Being at Work Scale conceived by Paschoal and Tamayo (2008). The personal data determined the participant's sex and age. The professional data included salary range, length of service, and field of professional activity.

The Well-Being at Work Scale was originally composed of two parts: 1. Affection, referring to the hedonic element of well-being; and 2. Achievement/expressiveness at work, referring to the eudaimonic element of well-being.

The Subjective Well-Being Scale of Albuquerque and Trócoli (2004) was used to compose the list of items in part 1, "Affection", while the items in part 2, "Achievement/expressiveness" were derived from studies by Walterman (1993) and from interviews with employees. This instrument assumes that the work context is an environment that is pervaded by emotions, achievement and expressiveness that can contribute to workers' well-being. After several validation steps, the final scale was composed of three factors: 1. Positive affect: with nine items and a Cronbach's alpha reliability score of 0.93, and variance of 39.9%. 2. Negative affect: with twelve items and a Cronbach's alpha reliability score of 0.91, and variance of 10.9%, and 3. Achievement/expressiveness: with nine items and a Cronbach's alpha reliability score of 0.88, and variance of 6.3%.

The Well-Being at Work Scale was presented in a Likert scale format, with five possible responses to each statement. The positive and negative affect factors were evaluated on a scale ranging from 1 (not at all) to 5 (extremely). The achievement/expressiveness factor was evaluated on a scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Paschoal & Tamayo, 2008).

Notably, Demo and Paschoal (2016) have already determined the validity of Paschoal and Tamayo's Well-Being at Work Scale (2008). That study conducted exploratory and confirmatory validations of the instrument with two different North American samples, totaling 809 participants from the United States. After their analysis, the scale was designed with the same factorial composition (positive affect, negative affect, and achievement/expressiveness). All three factors showed high reliability, with Cronbach's alpha higher than 0.90.

For the data collection for our study, partnerships were established with target higher education institutions in Brazil. Contact was made with several public universities that offered distance or semi-distance learning courses in the field of public healthcare, in order to contact professionals to participate in this study. Initially, all the websites of public universities in the country were accessed, to check whether they had distance education programs in the area of public healthcare. The course coordinators of five universities were then contacted by telephone, followed by formal letters to their departments explaining the proposed partnership. However, only two institutions were available to participate in the study.

The research project was submitted to the online platform Plataforma Brasil and approved under the CAAE [Certificate of Presentation for Ethical Evaluation] No. 41301115.0.0000.5407. Registry on Plataforma Brasil is essential for the presentation of research projects to the Research Ethics Committee (REC) for its ethical evaluation. After gaining the approval of the REC in second semester of 2015, we were able to begin the data collection process, which was carried out remotely via the online survey tool SurveyMonkey. The well-being measurement instrument, and a consent form, were sent to the research participants via email or via a link in the virtual learning environment of the that educational institution. All 374 public health professionals who had enrolled in courses at the two participating universities were contacted and asked to participate. We obtained responses from 169 participants, resulting in a 45.2% response rate.

Statistical analyses of the quantitative data were conducted using the software program *Statistical Package for the Social Sciences* (SPSS) version 22. The analyses included the following procedures:

- Descriptive analysis: (mean, standard deviation, mode, minimum, and maximum) and exploratory data analysis (data entry, presence of outliers, distribution of missing cases, frequency distribution of variables and samples size);
- Exploratory Factor Analysis (EFA): using the methods of Principal Components, Principal Axis Factoring (PAF), and internal consistency (Cronbach's alpha) to determine the validity and reliability of the measuring instrument.

#### 4. RESULTS

Descriptive analyses of the participants' personal data showed that the majority were female (80.4%) and aged between 30 and 39 years (43.8%). As for their profession, the majority had worked in the public health system for 1 to 5 years (50.3%), receiving between 6 and 9 minimum wages (32.5%) and working predominantly in the nursing field (46.7%).

Regarding the positive and negative effects, it was found, in general, that the research participants were moderately proud ( $M = 3.11$ ;  $SD = 1.21$ ), willing ( $M = 3.11$ ;  $SD = 1.03$ ), joyful ( $M = 3.09$ ;  $SD = 1.01$ ), excited ( $M = 3.08$ ;  $SD = 1.09$ ), cheerful ( $M = 3.07$ ;  $SD = 0.98$ ), concerned ( $M = 3.07$ ;  $SD = 1.08$ ) and happy ( $M = 3.04$ ;  $SD =$ ). However, they were only a little to moderately enthusiastic ( $M = 2.88$ ;  $SD = 1.12$ ), thrilled ( $M = 2.87$ ;  $SD = 1.09$ ), anxious ( $M = 2.68$ ;  $SD = 1.21$ ), calm ( $M = 2.64$ ;  $SD = 1.13$ ) and irritated ( $M = 2.54$ ;  $SD = 1.10$ ). They were also a little uncomfortable ( $M = 2.44$ ;  $SD = 1.17$ ), tense ( $M = 2.44$ ;  $SD = 1.18$ ), impatient ( $M = 2.35$ ;  $SD = 1.09$ ), upset ( $M = 2.33$ ;  $SD = 1.07$ ), frustrated ( $M = 2.28$ ;  $SD = 1.18$ ), nervous ( $M = 2.20$ ;  $SD = 1.09$ ) and depressed ( $M = 2.00$ ;  $SD = 1.12$ ). Finally, it was found that they were, on average, not at all or a little bored ( $M = 1.95$ ;  $SD = 1.06$ ) and angry ( $M = 1.94$ ;  $SD = 1.04$ ).

As for the achievement/expressiveness factor, the professionals agreed, or partially agreed that they developed skills that they considered important ( $M = 3.91$ ;  $SD = 0.84$ ); that they overcome challenges ( $M = 3.85$ ;  $SD = 0.90$ ); that they achieved results they valued ( $M = 3.78$ ;  $SD = 0.82$ ); that they carry out activities that express their abilities ( $M = 3.72$ ;  $SD = 0.85$ ); and that they are doing what they really like to do ( $M = 3.69$ ;  $SD = 0.88$ ). On the other hand, it was found that the sample only partially agreed that they express the best in themselves ( $M = 3.47$ ;  $SD = 0.99$ ), that they advance in their goals established for life ( $M = 3.45$ ;  $SD = 0.89$ ); that they fulfill their potential ( $M = 3.43$ ;  $SD = 0.88$ ); and that they gain important rewards for themselves ( $M = 3.13$ ;  $SD = 1.12$ ).

The analysis of evidence of validity of the instrument for assessing well-being at work showed 169 valid cases and between 0 and 4 missing cases, in its 30 items. According to Tabachnick and Fidell (2007), when the total number of missing cases does not exceed 5% of the data, there is no need to perform any analysis or change to the data. Also according to the guidelines of those authors (*ibid.*), to identify extreme univariate cases, all variables were transformed into Z scores. Thus, it was found that there were no extreme univariate cases distributed among the items. The same occurred with extreme multivariate cases.

Based on the covariance matrix analysis, it was noted that there were no linear connections among the other variables (linearity), and no singularity. It was possible to identify multicollinearity between some variables, with correlations greater than 0.80, though for this research, we decided to exclude only variables that presented a correlation value greater than 0.90. As there was no correlation value greater than 0.90, we decided not to exclude any item from the instrument. We found correlation values greater than 0.30 in more than 50% of cases, indicating that the matrix was probably factorable. The Kaiser-Meyer-Olkin (KMO) sampling adequacy test was performed, obtaining a value of 0.93, indicating that the sample is adequate, as values closer to 1 in the KMO test indicate that the matrix is more factorable.

The initial factor extraction was conducted by principal components analysis using pairwise comparison for omitted cases. The principal components analysis suggested an empirical structure with 3 components, which together, accounted for 66.56% of the total variance of the participants' responses to the questionnaire items. We followed the eigenvalues criterion (proper value) of factors greater than or equal to 1. Each factor explains at least 3% of the total variance. We reached then a maximum value of 3 factors to be extracted. As shown in the scree plot, the existence of 3 factors was confirmed. In the scree plot, the points that represent the components change from a steep slope to an almost horizontal slope. That point where the slope changes indicates the maximum number of factors to be extracted, as shown in Figure 1.

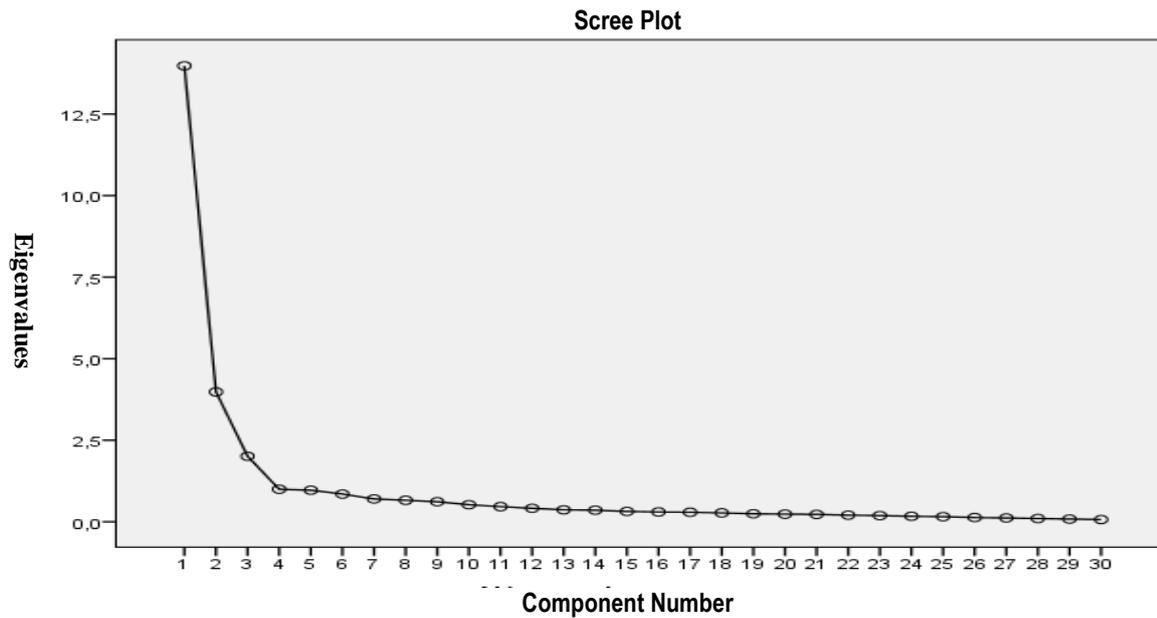


Figure 1. Distribution of the Well-Being at Work Scale eigenvalues (scree plot).

Horn's parallel analysis also indicated 3 factors for this instrument. In this analysis, the empirical eigenvalues obtained through principal components analysis were compared with the random eigenvalues obtained from RanEign software, according to the number of variables and sample size. Only factors with empirical values greater than or equal to random values were maintained in the structure, as shown in Table 2. Horn's parallel analysis showed that the first three factors explain greater variance than the corresponding factors in the random data. The structure with 3 factors was thus confirmed for this instrument.

**Table 2**

**Empirical and random eigenvalues of the first ten components of the instrument for measuring well-being at work**

Eigenvalues	Components									
	1	2	3	4	5	6	7	9	10	
Empirical	13.9	3.98	2.01	0.99	0.97	0.85	0.70	0.66	0.61	
Random	1.88	1.75	1.65	1.57	1.50	1.43	1.36	1.31	1.25	

Notes No. of items: 30; N = 169.

Next, we used PAF with the oblique rotation method and pairwise treatment for missing cases. This analysis enabled the extraction of 3 factors that explained 44.69% for the items of positive affect, 11.78% for the items of negative affect, and 6.07% for the items of achievement/expressiveness, in the total variance of responses to the items, respectively. Together they explained 62.55% of the total variance. Table 3 below presents the empirical structure of the scale, factorial loads, commonality ( $h^2$ ) of the items, means, standard deviations, internal consistency indexes, eigenvalues, and the variance percentages of each factor.

**Table 3**  
**Empirical structure of the instrument for measuring well-being at work**

Items	Factorial loads			h <sup>2</sup>	Means	Standard deviation
	1	2	3			
Excited	0.90			0.83	3.10	1.09
Thrilled	0.89			0.74	2.91	1.09
Enthusiastic	0.88			0.79	2.91	1.12
Joyful	0.78			0.79	3.09	1.00
Happy	0.76			0.75	3.08	1.09
Cheerful	0.76			0.62	3.10	0.98
Willing	0.71			0.54	3.14	1.04
Proud	0.66			0.52	3.12	1.22
Quiet	0.56			0.80	2.67	1.12
Nervous		0.93		0.67	2.18	1.09
Tense		0.85		0.64	2.39	1.16
Angry		0.79		0.63	1.94	1.06
Impatient		0.76		0.47	2.34	1.10
Anxious		0.73		0.61	2.64	1.16
Irritated		0.69		0.69	2.59	1.10
Upset		0.67		0.58	2.31	1.07
Concerned		0.65		0.35	2.41	1.18
Worried		0.62		0.59	3.10	1.10
Depressed		0.58		0.57	2.01	1.12
Frustrated		0.53		0.40	2.28	1.20
Bored		0.41		0.79	1.94	1.07
I carry out activities that express my abilities			-0.96	0.66	3.75	0.86
I develop skills that I think are important			-0.85	0.50	3.93	0.85
I do what I really like to do			-0.73	0.55	3.69	0.80
I realize my potential			-0.69	0.51	3.46	0.87
I achieve results that I value			-0.63	0.50	3.84	0.81
I overcome challenges			-0.63	0.65	3.84	0.81
I reach the goals I set for my life			-0.52	0.55	3.47	0.99
I express the best in myself			-0.53	0.48	3.53	0.96
I gain important rewards for myself			-0.40	0.40	3.11	1.16
<b>N</b>	169					
<b>Eigenvalue (Proper value)</b>	13.9	3.98	2.00			
<b>% of Explained Variety(PAF)</b>	44.69%	11.77%	6.07%			
<b>Number of items</b>	9	12	9			
<b>Alfa (α)</b>	0.95	0.93	0.91			
<b>KMO</b>	0.93					
<b>% of Total Variance Explained (principal components)</b>	62.54%					

It was confirmed that the well-being at work measurement instrument has 30 items and is formed by 3 factors: factor 1 “positive affect”, factor 2 “negative affect” and factor 3 “accomplishment/expressiveness”. All items presented a factorial load greater than 0.40, which indicates that no item was excluded from the instrument; this demonstrates that all items on the scale represent the factor significantly. Factor 1 consists of 9 items with factorial loads varying between 0.56 and 0.95 and with a high internal consistency index (Cronbach's  $\alpha = 0.95$ ). Factor 2 consists of 12 items with factorial loads ranging from 0.41 to 0.93 and a high internal consistency index of 0.93. Factor 3 contains 9 items with factorial loads ranging from -0.38 to -0.96 and a high internal consistency index (Cronbach's  $\alpha = 0.93$ ).

## 5. DISCUSSION

The results showed that the averages of the Well-Being at Work Scale items are close to the midpoint of the scale. This demonstrates that the public health professionals surveyed presented a moderate level of well-being at work. Although public health professionals may have to face numerous adversities in the work environment, such as inadequate working conditions and a lack of resources, as described by Azevedo and Costa (2010) and Kumar, Ahmed, Shaikh, Hafeez and Hafeez (2013), it was found that they still manage to maintain moderate levels of well-being. The fact that the participants in our sample are able to maintain moderate levels of well-being can be explained by individual variables,

such as the ability to control stress levels in the work environment, which helps to maintain levels of well-being in the workplace (Hirschle et al., 2019).

It is important to highlight that the item "I gain important rewards for myself" was the one that had the lowest average score among the items of the achievement and expressiveness factor of the Well-Being at Work Scale. This result may be a reflection of management policies in relation to how employees are rewarded in the SUS – the Brazilian public health system. It is suggested, therefore, that public managers dedicate themselves more to offering both financial and non-financial rewards that suit the needs of health professionals, as workers in this area are often underpaid, poorly recognized, and lacking in proper career paths. (Grobler, Marais, & Mabunda, 2015; Pereira & Sena, 2016).

On the other hand, the highest average score was found for the item "I develop skills that I consider important" of the achievement/expressiveness factor when compared to the averages of other items values. It was found that although the participants only partially agreed that they gain important rewards, they agreed that they can develop important skills in their work activity. However, the fact that the professionals often do not gain rewards that they value at work can cause them to feel frustrated, leading to difficulty retaining talent in the public health system. This reinforces the relevance of implementing good people management policies to promote well-being in organizations, as workers who feel valued tend to perform better in organizations (Sá & Demo, 2014).

The Well-Being at Work Scale was also found to be useful for measuring positive and negative effects and achievement/expressiveness at perceived professionals in the public health context. It is also a valuable tool for organizational diagnosis, and can guide people management processes in the health sector, such as employee rewards programs. It can also be used to help identify harmful aspects that affect well-being, providing important information to support future interventions to promote employee health, and the creation of public policies to mitigate these negative effects, such as the perception of little achievement at work.

Based on the exploratory factor analyses, it was found that the questionnaire for assessing well-being at work was suitable, with no changes or exclusions required, given that all the items on the scale significantly represented the factor. The well-being instrument showed high rates of internal consistency, i.e. good psychometric parameters. This was corroborated by the study of Demo and Paschoal (2016), who verified the validity of Paschoal and Tamayo's (2008) Well-Being at Work Scale.

It was concluded that this measurement instrument is useful for scientific research, bearing in mind that it has already been applied in different organizational contexts, including private companies (Sant'anna, Paschoal, & Gosendo, 2012). Sousa (2011) conducted a study with psychologists working in the public health system, using the instrument, and identified high rates of internal consistency of the instrument in their sample composed of health professionals.

Exploratory analyses of the questionnaire's empirical structures were very useful, as in the analysis of the descriptive data of well-being at work, the participants tended to respond by giving values close to the midpoint of the scale. Ergo, the participants, when assessing their levels of well-being, chose not to attribute values that were too high or too low, suggesting a centralizing trend in this assessment. For this reason, it was important to check the validity evidence of the scale to confirm whether there was a central tendency bias in the survey, to show whether the questionnaire was actually measuring what it intended to measure.

Based on the evidence described here, Paschoal and Tamayo (2008)'s definition was confirmed, i.e., well-being at work is the result of affective aspects (positive and negative effects) and cognitive aspects (perception of expressiveness and accomplishment), confirming a tendency in the national and international literature to prioritize both the affective dimension and personal expression and achievement at work dimension, within the concept of well-being (Ferreira et al., 2007; Van Horn et al, 2004). Thus, it was found that this construct involves both the hedonistic and eudaimonic conceptions. Well-being is achieved when employees experience high levels of positive effects and low levels of negative effects, and when they perceive their expressiveness and accomplishment at work. Thus, it is a multidimensional variable (Morin et al., 2017).

## 6. CONCLUSION

It is concluded that the Well-Being at Work Scale can be used to measure the effects and the achievement/expressiveness perceived at work by professionals in the public healthcare system. This instrument can be useful for performing organizational diagnosis and guiding people management processes in the health system. It is also valuable for identifying the harmful aspects and those that contribute to well-being. Finally, it provides information to support future interventions and the creation of public policies to mitigate the negative effects and the perception of lack of accomplishment at work.

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