

## Work as Meaning Inventory: Psychometric Properties and Additional Evidence of the Brazilian Version

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**Abstract:** Meaningful work promotes the professional development of individuals and organizations. This study aimed to translate, adapt, and present additional evidence of the validity of the Work as Meaning Inventory – WAMI for the Brazilian population. It addressed 2,111 workers (67% women) aged between 18 and 77. The results indicate that the inventory's Brazilian version has a linguistic structure appropriate to the Brazilian Portuguese and satisfactory goodness of fit indices for the one-factor structure, in addition to invariance across sexes. Additionally, evidence of external convergent validity was found with life satisfaction and job satisfaction, which was negative for exhaustion. The conclusion is that meaningful work benefits the well being of workers and organizations. Thus, we recommend that this adapted version be used in the Brazilian context, as it meets the psychometric requirements for adapting instruments across cultures.

**Keywords:** labour, professional development, psychometrics

## Work as Meaning Inventory: Propriedades Psicométricas e Evidências Adicionais da Versão Brasileira

**Resumo:** Trabalho significativo promove o desenvolvimento profissional dos indivíduos e organizações. Este estudo teve por objetivo traduzir, adaptar e apresentar evidências adicionais de validade do *Work as Meaning Inventory – WAMI* para a população brasileira. Participaram do estudo 2.111 trabalhadores (67% mulheres) com idades entre 18 a 77 anos. Os resultados indicaram que a versão brasileira do inventário apresentou estrutura linguística ao idioma português do Brasil adequada, melhores índices de ajuste na estrutura unifatorial e invariância por sexo. Evidências externas de validade convergentes com satisfação com a vida, satisfação laboral e negativa com exaustão incrementam informações do WAMI. Conclui-se que o trabalho significativo traz benefícios ao bem-estar dos trabalhadores e organizações. Por fim, recomenda-se o uso desta versão adaptada para o contexto brasileiro, por atender aos rigores psicométricos de adaptação de instrumentos entre culturas.

**Palavras-chave:** trabalho, desenvolvimento profissional, psicometria

## Inventario del Trabajo como Significado: Propiedades Psicométricas y Evidencias Adicionales de la Versión Brasileña

**Resumen:** El trabajo significativo promueve el desarrollo profesional de las personas y las organizaciones. Este estudio tuvo como objetivo traducir, adaptar y presentar evidencias adicionales de validez del *Work as Meaning Inventory – WAMI* para la población brasileña. El estudio incluyó a 2111 trabajadores (67% mujeres) con edades entre 18 y 77 años. Los resultados de validez externa convergente con la satisfacción con la indicaron que la versión brasileña del inventario presentó estructura lingüística adecuada al portugués brasileño, mejores índices de ajuste en la estructura unifactorial e invariancia por sexo. La evidencia vida, la satisfacción laboral y negativa con el agotamiento aumentan la información del WAMI. Se concluye que el trabajo significativo trae beneficios para el bienestar de los trabajadores y las organizaciones. Finalmente, se recomienda el uso de esta versión adaptada para el contexto brasileño, ya que cumple con los rigores psicométricos de la adaptación de instrumentos entre culturas.

**Palabras clave:** trabajo, desarrollo profesional, psicometría

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Meaningful work is an abstract concept that individuals perceive based on their experiences and is conceptually represented as rewarding, beneficial, and supportive work (Rosso, Dekas, & Wrzesniewski, 2010). In this sense, meaningful work can be defined as the degree to which a worker experiences his/her work as valuable (Steger, Dik, & Duffy, 2012). From the Psychology of Working perspective,

meaningful work is considered a fundamental human need that needs to be met to achieve professional fulfillment (Duffy, Blustein, Diemer, & Autin, 2016), as it helps individuals understand the world around them, contribute socially, and grow personally (Steger et al., 2012).

With the spread of the COVID-19 pandemic in different countries, global working conditions deteriorated, emphasizing the labor market's uncertainties, precariousness, and inequalities (Latorre, Pérez-Nebra, Queiroga, & Alcover, 2021; Pires & Andrade, 2022). In this context, non-governmental organizations and researchers began to intensively promote studies and management practices around the meaning of work because it benefits individuals, organizations, and society (Correia & Almeida, 2020; Latorre et al., 2021).

Organizations recognize that promoting meaningful work is crucial to engaging their employees (Lysova, Allan, Dik, Duffy, & Steger, 2019). Currently, work is much more than a source of income, surpassing the boundaries of the objective sphere and connecting the satisfaction of basic needs with purpose and personal meanings. Moreover, having a job considered valuable contributes to positive career development (Lysova et al., 2019), in addition to predicting positive outcomes, such as well-being, health, citizenship, and creativity, among others (Allan, Autin, Duffy, & Sterling, 2020; Latorre et al., 2021; Leonardo, Pereira, Valentini, Freitas, & Damásio, 2019).

The Psychology of Working Theory (PWT) is a theoretical framework that extends contemporary vocational research as it explains how structural and psychological factors influence access to decent and meaningful work (Allan et al., 2020; Duffy et al., 2016; Pires & Andrade, 2022). In the PWT logic, for work to be meaningful, it must first be decent; decent work leads to work that helps workers meet their personal and social needs, giving meaning and fulfilling their purposes (Allan et al., 2020; Pires & Andrade, 2022). Furthermore, expectations for meaningful work are consistent across all social classes (Autin & Allan, 2019); unfortunately, only those more socioeconomically privileged individuals are likely to experience truly meaningful work.

There is a growing interest in careers with meaning and purpose (e.g., careers in the military and health fields) that represent not only a way to earn a living (Lysova et al., 2019) but also fulfill a sense of individual and social worth. Perceiving work as a subjectively meaningful experience consists of experiencing a positive valence about the work itself, full of positive emotions, intending to contribute to collective and social good (Steger et al., 2012). According to Lysova et al. (2019), individual, organizational, and social factors interact to promote personal and socially valuable work.

Studies relating meaningful work with organizational and personal life constructs are still incipient in Brazil. However, this relationship is essential for promoting workplace and social well-being (Latorre et al., 2021; Pires & Andrade, 2022). The Work as Meaning Inventory – WAMI (Steger et al., 2012), translated into Brazilian Portuguese as *Inventário de Trabalho Significativo* seeks to comprehensively capture the experience

of meaningful work from a multidimensional perspective. The instrument's 10 items are distributed into three dimensions: positive meaning, meaning making through work, and greater good motivations. The first dimension refers to the positive meaning of work. The second concerns the degree of an individual's involvement with work and personal fulfillment, and the third dimension concerns work's positive contribution to the community (Steger et al., 2012).

Among the instruments found in the literature to measure meaningful work, the Work as Meaning Inventory (WAMI) presented the best internal consistency, both for its total items ( $\alpha = 0.93$ ) and dimensions: positive meaning ( $\alpha = 0.89$ ), meaning making through work ( $\alpha = 0.82$ ) and greater good motivations ( $\alpha = 0.83$ ). WAMI was developed with a sample of 370 participants from a US university. Cross-cultural adaptations were conducted in Turkey (Akin, Hamedoglu, Kaya, & Sariçam, 2013), South Africa (Finch, 2014), France (Arnoux-Nicolas, Sovet, Lhotellier, & Bernaud, 2017), Italy (Di Fabio, 2018), and Brazil (Leonardo et al., 2019).

In Turkey, the measure was adapted in a sample of 352 teachers, and it presents the same number of items and a three-dimension internal structure as the original instrument, with Cronbach's alpha coefficients of 0.68, 0.64, and 0.73, respectively, and 0.86 for the overall scale (Akin et al., 2013). In South Africa (Finch, 2014), WAMI was adapted with a sample of 300 adult workers. The total number of items remained; however, a two-dimension structure was found: positive meaning ( $\alpha = 0.86$ ) and greater good motivations ( $\alpha = 0.76$ ). In France, WAMI was adapted in a study addressing 501 civil workers (Arnoux-Nicolas et al., 2017). In this version, the total items and the original structure were kept, with Cronbach's alphas of 0.79, 0.82, and 0.75, respectively, for greater good motivations, positive meaning, and meaning making through work. Finally, in the Italian version, the study was conducted with 344 adult workers (Di Fabio, 2018), and the instrument maintained the original structure with a Cronbach-type general precision coefficient greater than 0.90.

WAMI was already translated and adapted in Brazil (Leonardo et al., 2019). However, this first version did not represent the same theoretical framework as the original Work as Meaning Inventory (WAMI) developed by Steger et al. (2012). Instead, a one-dimension structure was found through confirmatory factor analysis. In addition to the divergent internal structure, the term "meaning of work" was used in this Brazilian first version rather than "meaningful work", as the original study of the Work as Meaning Inventory recommends. These concepts represent distinct terms in the literature, in which the meaning of work is related to the creation of meaning, being a cognitive process by which people construct, interpret, and understand their experiences as being positive, negative, or neutral (Allan, Batz-Barbarich, Sterling, & Tay, 2019; Rosso et al., 2010). In turn, meaningful work refers to the meaning or value of individual work, which by definition has a positive valence in its constitution (Allan et al., 2019).

The mistaken use of the translated semantic concept affects the proper functioning of WAMI in the Brazilian context and hinders the construct's cross-cultural pairing, consequently, the inventory's use. These divergences demand the measure to be adjusted to the Brazilian context, as it can corroborate the measure's revisions of its dimensional and theoretical structure in Brazil. The exploratory factor analysis (EFA) tends to be appropriate to explore other dimensional structures when there are no definitive hypotheses about an instrument's structure. It may provide an opportunity to adjust other theoretical structures and different factors reported in the literature (Ferrando & Lorenzo-Seva, 2018).

In this context, this study aimed to translate, adapt and present additional evidence of the validity of the Work as Meaning Inventory – WAMI for the Brazilian population. Hence, we started with the original measure and followed the guidelines for the translation of items with construct conceptual equivalence (Allan et al., 2019; Rosso et al., 2010; Steger et al., 2012). Additionally, exploratory procedures were also adopted to identify the best internal structure and answer three theoretical hypotheses:

Perceiving a job to be filled with positive and rewarding meanings contributes to achieving life and job satisfaction (Allan et al., 2020; Latorre et al., 2021; Lysova et al., 2019; Steger et al., 2012), decreasing one's perception of depression and hostility (Allan et al., 2020; Lysova et al., 2019; Steger et al., 2012), as well as incivility behaviors, absenteeism, and job turnover (Allan et al., 2020; Steger et al., 2012). Additionally, such a perception is a positive functional characteristic in stressful professional contexts (Correia & Almeida, 2020; Latorre et al., 2021). For example, one's perception of having a meaningful job during the worsening of the COVID-19 pandemic is expected to favor perceptions concerning life and job satisfaction. Hence, the meaningful work construct is expected to be positively associated with life satisfaction (H1) and job satisfaction (H2).

Recent studies suggest that workers need to develop a sense of purpose, reason, and meaning for their work to remain happy and committed to their jobs, increasing mental well-being (Allan et al., 2019; Correia & Almeida, 2020; Latorre et al., 2021). Conversely, meaningless jobs are associated with affective disengagement (Latorre et al., 2021), low levels of motivation, and boredom (Allan et al., 2019). Thus, in H3, meaningful work is expected to be negatively associated with Burnout, both in terms of the exhaustion (H3a) and detachment from the job (H3b) dimensions.

## Method

### Participants

The sample comprised 2,111 participants, 1,415 women (67% women) and 696 men (33% men), aged between 18 and 77 years ( $M = 41.7$ ,  $SD = 11.1$ ), most lived in the southeast (64.6%) and south (13.5%) of Brazil. Of the participants, 76.0% had a graduate degree, 17.4% had an undergraduate degree,

6.3% had completed high school, and only 0.2% had elementary education. Regarding monthly family income, 65.4% had an income above R\$5,725.00. Most, 58.2%, were health workers (e.g., physicians, nurses, psychologists, nursing technicians or assistants, etc.), followed by 12.4% safety professionals (e.g., firefighters, lifeguards, etc.), 10.3% from the education field (e.g., teachers, pedagogues, etc.), and 19.1% were professionals from different fields. The sample was randomly divided into two groups to analyze data: group 1 (exploratory factorial procedures, with 1,034 participants) and group 2 (confirmatory factorial procedures, with 1,077 participants).

### Instruments

Measures already adapted to the Brazilian context addressing phenomena relevant to the axiological network for evaluating meaningful work, including life satisfaction, job satisfaction, and burnout, were adopted in this study (Latorre et al., 2021; Leonardo et al., 2019). Additionally, a socio-demographic questionnaire was used.

*Work as Meaning Inventory* - WAMI (Steger et al., 2012): composed of 10 items with 3 dimensions: positive meaning ( $\alpha = 0.82$ ), meaning making through work ( $\alpha = 0.83$ ), and greater good motivations ( $\alpha = 0.93$ ) rated on a Likert scale ranging from 1 = Strongly disagree to 5 = Strongly agree.

*Life Satisfaction Scale* (Zanon, Bardagi, Layous, & Hutz, 2014): 5-item instrument adapted to the Brazilian context ( $\alpha = 0.87$ ), rated on a 7-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

*Generic Job Satisfaction Scale* (Andrade, Omar, & Salessi, 2020): 5-item instrument adapted to the Brazilian context ( $\alpha = 0.87$ ), rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

*Oldenburg Burnout Inventory* (Schuster & Dias, 2018): adapted to the Brazilian context, and comprising 13 items distributed into 2 dimensions: exhaustion ( $\alpha = 0.92$ ) and disengagement ( $\alpha = 0.88$ ). Items are rated on a Likert scale from 1 = Strongly disagree to 4 = Strongly agree.

*Socio-demographic questionnaire*: addressing gender, age, schooling, monthly family income, and profession.

### Procedures

We complied with the guidelines recommended by the International Test Commission (2017) on how to adapt instruments to other cultures appropriately. The original English version of the Work as Meaning Inventory - WAMI (Steger et al., 2012) was used in the cross-cultural adaptation to the Brazilian context and to verify its validity after the authors gave their consent. Three bilingual professionals translated the instrument to Brazilian Portuguese and back-translated it into English. The three translated versions were reconciled and assessed by two judges, specialists in professional career guidance. Good results were obtained regarding semantic equivalence based on referential meaning.

The version adapted in this study proved to be faithful to the order and interpretation of the items in the original

version by Steger et al. (2012). We chose to keep the acronym of the original instrument (WAMI) to facilitate it to be recognized across cultures. In the process of adapting the instruments' response scale, the experts suggested adopting the option "totally disagree" and totally agree, as well as *positive meaning*, *contribution to meaning making* and greater good *motivation*, for the inventory's theoretical dimensions. These suggestions were verified and validated by the original authors.

A pilot study was conducted with ten workers to make an operational assessment. The participants answered the Brazilian version, assisted by the first author. Four participants had a professional technical education in nursing, three had a bachelor's degree in psychology, and the remaining three had a graduate degree in public safety. The participants read the questions and experienced no comprehension problems. Few grammatical adjustments were made, and the final version was used in an empirical study conducted in the Brazilian context.

**Data collection.** Data were collected online between March and December 2020 during the pandemic. The participants were recruited through personalized invitations sent via email and social media to professionals from all over Brazil. The participants answered the questionnaires online after consenting through free and informed consent forms.

**Data analysis.** The analytical process started by identifying and treating discrepant and missing data, followed by an Exploratory Factor Analysis (EFA) to assess the factor structure of the Work as Meaning Inventory - WAMI (Steger et al., 2012). The significant result of Bartlett's test of sphericity ( $p < 0.05$ ) and the Kaiser-Meyer Olkin sample adequacy measure (KMO) greater than 0.80 were used as satisfactory criteria for factoring data (Ferrando & Lorenzo-Seva, 2018).

A polychoric matrix and Robust Diagonally Weighted Least Squares (RDWLS) extraction method were adopted in the analysis. The number of factors to be retained was determined according to the Parallel Analysis technique and Hull Method with a random permutation of data and Robust Promin rotation (Ferrando & Lorenzo-Seva, 2018). Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI) indices were assessed to verify the model's goodness of fit. The factors' stability was verified using the H index (Ferrando & Lorenzo-Seva, 2018), which assesses how well a set of items represents a common factor. H values range from 0 to 1; high H values ( $> 0.80$ ) suggest a well-defined latent variable, which is more likely to be stable across different studies. The Factor Determinacy Index - FDI and Overall Reliability of fully-Informative prior Oblique N-EAP scores - ORION were assessed to measure the quality and effectiveness of factor estimation; values above 0.90 and 0.80, respectively, are expected (Ferrando & Lorenzo-Seva, 2018).

Confirmatory factor analysis (CFA), using the Robust Diagonally Weighted Least Squares (RDWLS) estimation method,

was performed to provide additional evidence of the instrument's internal structure and identify the best dimensionality of the WAMI for the Brazilian context. According to the recommended literature (Brown, 2015), the following was adopted: non-significant  $\chi^2$  reference value,  $\chi^2/df$  lower than 5, RMSEA and SRMR lower than 0.08, a confidence interval (upper limit) lower than 0.10, and CFI and TLI higher than 0.90. After analyzing the models, multigroup analyzes (MGCFA) were performed to verify the instrument's factorial invariance, considering the participants' sex with the total sample (Putnick & Bornstein, 2016). Finally, the invariance models were assessed with the CFA's respective goodness of fit indices and the measure's invariance indicated by the difference in the CFI between the models ( $\Delta CFI < 0.01$ ).

The coefficient obtained by the alpha and omega indicators was used to assess the instrument's precision. Finally, evidence of validity based on external measures (convergent validity) was performed using Pearson's correlation coefficient. The objective was to assess the association between the general score obtained in the Work as Meaning Inventory - WAMI and the scores of the constructs outlined in the study hypotheses (Life Satisfaction Scale, Generic Job Satisfaction Scale, and Burnout). Analyzes were performed using Factor 10.10 and Jasp 0.14 software.

## Ethical Considerations

This study was submitted to and approved by the Ethics Committees on Research with Human Beings of the Universidade Federal do Espírito Santo, CAAE No. 25833919.5.0000.5542. In addition, all the participants were fully informed about the study's objectives and provided their consent, according Resolutions 466/2012 and 510/2016, National Health Council on Guidelines and Norms for Research Involving Human Subjects.

## Results

### Exploratory Factor Evidence

The adapted version's dimensional nature was explored according to the criterion of parallel analysis and the Hull method (Ferrando & Lorenzo-Seva, 2018), which indicated a one-dimension structure composed of ten items (real matrix variance of 70.7% and; 20.2% random matrix variance). The one-dimension indicators ( $\hat{\text{ÚNICO}} > 0.95$ ;  $\text{EVC} > 0.85$  and  $\text{MIREAL} < 0.30$ ) showed the measure's one-factor structure ( $\hat{\text{ÚNICO}} = 0.97$ ;  $\text{EVC} = 0.91$  and  $\text{MIREAL} = 0.19$ ) (Ferrando & Lorenzo-Seva, 2018). Next, an exploratory factor analysis (EFA) was performed, and the results showed the factorability of the data matrix with adequate Kaiser-Meyer-Olkin indices ( $\text{KMO} = 0.90$ ) and significant Bartlett's test of sphericity (9427.3;  $df = 45$ ,  $p < 0.001$ ). Table 1 presents the factor saturations and commonalities for each item.

Table 1  
Matrix with Items and Factor Loadings

| Variables   | Factor Loading | h <sup>2</sup> |
|---|----------------|----------------|
| 1- I have found a meaningful career.                          | -0.88          | 0.77           |
| 2- I understand how my work contributes to my life's meaning. | -0.87          | 0.77           |
| 3- I have a good sense of what makes my job meaningful.       | -0.86          | 0.74           |
| 4- I have discovered work that has a satisfying purpose.      | -0.89          | 0.80           |
| 5- I view my work as contributing to my personal growth.      | -0.89          | 0.80           |
| 6- My work helps me better understand myself.                 | -0.81          | 0.66           |
| 7- My work helps me make sense of the world around me.        | -0.79          | 0.63           |
| 8- My work really makes no difference to the world.           | 0.42           | 0.18           |
| 9- I know my work makes a positive difference in the world.   | -0.81          | 0.65           |
| 10- The work I do serves a greater purpose.                   | -0.67          | 0.44           |

Note. Source: Study's data (2021)

Table 2  
Confirmatory Factor Analysis (CFA) and Multi-group (MGCF)A

| Work as Meaning Inventory          | X <sup>2</sup> /df | RMSEA (90%CI)      | SRMR | TLI | CFI |      |
|------------------------------------|--------------------|--------------------|------|-----|-----|------|
| One-factor model                   | 1.87               | .029 (.018 - .039) | .05  | .99 | .99 |      |
| Multigroup models according to sex |                    |                    |      |     |     |      |
| Types of Invariance                |                    | RMSEA (90%CI)      | SRMR | TLI | CFI | ΔCFI |
| Configural                         |                    | .013 [.000 – .029] | .05  | .99 | .99 | -    |
| Metric                             |                    | .012 [.000 – .028] | .05  | .99 | .99 | 0.00 |
| Scalar                             |                    | .016 [.000 – .030] | .05  | .97 | .99 | 0.00 |

Note. Source: Study's data (2021)

### Invariance Analysis

Because of the one-dimension structure, WAMI invariance (Steger et al., 2012) across sexes was verified through the multigroup confirmatory factor analysis (MGCF)A. The configural, metric, and scalar invariance tests showed that the measure is invariant for the three models tested (Table 2).

The adequacy indices of the configural model showed that the one-factor structure of the WAMI's Brazilian

The items presented adequate factor loadings, showing to be adherent to each other and explaining 64.8% of the data variance. All items obtained high factor loadings (above 0.40). In addition, the one-dimension structure presented goodness of fit indices:  $\chi^2= 28463.321$ ;  $df = 45$ ;  $p < 0.001$ ;  $CFI = 0.98$ ;  $TLI = 0.98$ ;  $AGFI = 1.00$  and  $RMSEA = 0.10$  (0.08 - 0.12). The precision indicators in the one-dimension internal structure proved to be satisfactory ( $\alpha = 0.93$ ;  $\omega = 0.94$  and composite reliability = 0.94). Regarding the construct replicability, the H index suggested stability of the measure's one-factor structure (H-index = 0.96), which can be replicable in future studies (Ferrando & Lorenzo-Seva, 2018) ( $H > 0.80$ ). The one-factor version showed adequate indices (FDI = 0.98 and ORION = 0.96), concerning factor estimation quality and effectiveness (FDI > 0.90 and ORION > 0.80).

### Confirming Factor Evidence

Next, the replication of the internal structure resulting from the EFA was assessed through Confirmatory Factor Analysis (CFA). The original structure of the WAMI with three dimensions (Steger et al., 2012) and the one-dimension version, suggested by the EFA performed in this study, were used to test the models' goodness of fit. The results indicated a one-dimension structure with adequate goodness of fit indices for all criteria; hence, Table 2 shows that this is the model with the best goodness of fit.

version was adequate in both groups (male and female). Furthermore, when considering the CFI difference values between the models (Putnick & Bornstein, 2016), metric and scalar invariance was also achieved (Table 2), confirming that the Work as Meaning Inventory - WAMI is equivalent for both men and women in the Brazilian context. In other words, the instrument presents no variation between these groups, presenting robust psychometric properties.

## Converging Evidence

External evidence was tested using Pearson's correlation, with measures of life satisfaction, job satisfaction, and burnout. Meaningful work was moderately associated with life satisfaction ( $r = 0.40$ ;  $p < 0.001$ ) and job satisfaction ( $r = 0.42$ ,  $p < 0.001$ ), and weakly and negatively associated with the burnout exhaustion dimension ( $r = -0.14$ ;  $p < 0.001$ ). However, there was no association between meaningful work and disengagement from work caused by burnout ( $r = -0.00$ ;  $p < 0.83$ ).

## Discussion

This study aimed to translate, adapt, and present additional evidence of the validity of the Work as Meaning Inventory - WAMI for the Brazilian population. Overall, the results show that the one-dimension version is the most adequate solution for the Brazilian context, contradicting the dimensional results found for the original version with three subscales (Steger et al., 2012). However, this study's evidence of internal structure is in line with theoretical assumptions of meaningful work, as previously observed in the South African version (Finch, 2014) and the first Brazilian adaptation (Leonardo et al., 2019). Furthermore, one-dimension models are conceptually more aligned with the global definition of meaningful work than multidimensional models precisely because they do not specify experiences as strictly private (Allan et al., 2019).

Regarding the linguistic adjustment of the WAMI's Brazilian version, its items are faithful to the construct's theoretical nature and the original version's items (Steger et al., 2012). Such adjustment is an important finding since the results regarding the items' translation, interpretation, and order reported by the study that previously adapted this measure in Brazil (Leonardo et al., 2019) differed from the original version. Hence, this study was the first to provide an accurate linguistic adjustment aligned with the original study.

Another critical aspect of the study first translating WAMI (Leonardo et al., 2019) is that the authors did not mention the concept of meaningful work in the items, replacing it with the meaning of work. This aspect was remedied in the current version. This terminology used in the development of the items in the Brazilian version was intended to capture the distinct and specific components of the construct's literature (Allan et al., 2019). Thus, the meaning of work is understood as the elaboration of meaning, in which people cognitively construct, interpret and understand their experiences as positive, negative or neutral (Allan et al., 2019; Rosso et al., 2010), whereas meaningful work is a positive component of the meaning or value of work for individuals (Allan et al., 2019).

Exploratory factor analysis (EFA) was performed, followed by confirmatory factor analysis (CFA), to assess an alternative dimensional internal structure of

the WAMI's first Brazilian version (Leonardo et al., 2019). The exploratory factorial analysis provided evidence of the one-dimension structure's stability in the Brazilian context. With a similar objective, the confirmatory procedures reinforced the reasonableness of the one-dimension structure of the Work as Meaning Inventory for the Brazilian context. Even though the results diverge from the original structure (Steger et al., 2012), these results are important for the construct, indicating cultural and social variations of the phenomenon in contexts different from the United States (Steger et al., 2012), Turkey (Akin et al., 2013), France (Arnoux-Nicolas et al., 2017) and Italy (Di Fabio, 2018).

The multigroup Confirmatory Factor Analysis (MGCFA) results showed that the WAMI's Brazilian version presented configural, metric, and scalar invariance across sexes (male and female). The MGCFA enables assessing the configuration and parameters of instruments for different groups simultaneously (Putnick & Bornstein, 2016). These findings provide refined notes on the psychometric properties of the adapted instrument, allowing it to be used with greater confidence among male and female Brazilians. The reason is that the invariance models used (configurable, metric, and scalar) in this study considered parameters that ensure the measure's invariance, enabling the comparison of groups of the same sample (Putnick & Bornstein, 2016). Additionally, the literature has not yet reported invariance studies with the WAMI comparing men and women. Future studies can verify whether work is perceived as personally meaningful and filled with a social purpose in the same way by both sexes.

Regarding precision indicators, the alpha, omega, and composite reliability coefficients provided evidence that the scale has adequate internal precision indices, similar to other versions adapted internationally (Akin et al., 2013; Arnoux-Nicolas et al., 2017; Di Fabio, 2018; Finch, 2014; Leonardo et al., 2019; Steger et al., 2012).

Regarding the hypotheses concerning the relationship with external variables, meaningful work showed a positive and moderate correlation with life satisfaction, corroborating hypothesis 1. This result is in line with previous studies indicating that perceiving one's work as valuable and full of subjective meaning relates to the perception of individual achievements and life satisfaction (Allan et al., 2019; Arnoux-Nicolas et al., 2017; Steger et al., 2012). Individuals who see their work as remarkable and vital to themselves and the world express a higher level of self-worth and contentment and assign greater importance to their lives (Arnoux-Nicolas et al., 2017; Steger et al., 2012).

Likewise, job satisfaction showed a positive and moderate significant relationship with meaningful work, corroborating hypothesis 2. However, as Allan et al. (2019) noted, it is challenging to distinguish meaningful work from job satisfaction since meaningful work inherently needs to be satisfying. Additionally, meaningful work fosters an individual's values because it promotes positive affective states that lead to global job satisfaction assessments (Allan et al., 2019; Steger et al., 2012).

Hypothesis 3 was partially supported by this study's results. Meaningful work presented a negative and weak correlation with the exhaustion dimension (H3a). Lacking a job that is considered important and has positive value for an individual can result in a perception of energy loss and fatigue, with consequences not only for one's health but also influencing organizational phenomena, such as turnover, absenteeism, and poor performance (Allan et al., 2019; Steger et al., 2012). Workers who perceive their work to be meaningful are somewhat "protected" from burnout, and this characteristic may moderate the impact of stress, burnout, and interpersonal detachment from the job.

In turn, there was no significant relationship with the emotional exhaustion dimension of Burnout, so that (H3b) was rejected. Not perceiving work as rewarding and gratifying was an aspect Fouche, Rothmann, and van der Vyver (2017) reported in the study addressing teaching professionals in South Africa that favors burnout and detachment from the job. The absence of a specific relationship with exhaustion found among Brazilians might explain the specificities of this study's sample profile and is an important aspect to be more deeply investigated in future studies.

In general, the possibility for individuals to experience meaningful work depends on the work environment and context, where their needs can be met and facilitated. As conceptualized by the Psychology of Working Theory (Allan et al., 2020; Duffy et al., 2016), decent work leads to meaningful work because it helps workers meet basic needs that complement their personal, family, and social values (Allan et al., 2020). In practice, promoting decent and meaningful work enables building inclusive work environments for all.

Meaningful work is a resource and a vital feature of work and can promote important outcomes for workers and organizations. Thus, it is an aspect to be considered by organizational and career psychologists in interventions, being highly relevant for improving vulnerable occupational contexts and stressful working conditions, considering it has the potential to promote people's well being. Furthermore, individuals who perceive their work as meaningful, notable, and supportive contribute to achieving their organizations' goals and accomplishments (Allan et al., 2019). According to Rosso et al. (2010), some factors can contribute to the achievement of meaningful work, including a) sharing individual and organizational values; b) the nature of tasks (importance, purpose); c) connection among co-workers; and d) perception of meeting career and/or occupational calls.

Regarding the application of the knowledge obtained in this study, meaningful work can be promoted as a personnel management strategy, especially in adverse contexts and situations, as was the case of health professionals providing care during the pandemic in Brazil (Latorre et al., 2021). Systematic interventions aligned with evaluative practices and management policies can decrease turnover rates, favor talent retention, and increase work engagement, in addition to fighting exhaustion and stress (Latorre et al., 2021; Lysova et al., 2019).

From an ethical perspective, organizations should promote meaningful work as a general quality of work, not something that is exclusive to a particular group of people. Additionally, organizations must understand what makes work meaningless, empty, powerless, disconnected, and unappreciated. From a practical perspective, communication within an organization should clearly support workers towards meaningful work, reshaping their roles to match what they really want to do. Leaders must assist in this communication by first realizing the importance of their work in daily practice, to later point it out to others.

Finally, this study is expected to contribute to scientific knowledge of the meaningful work construct and its implications for health domains (burnout), quality of life (life satisfaction), and organizational performance (job satisfaction). One of the strengths of this study is its sample size and diversity, which included workers from different occupational groups (health, education, safety, among others), who were surveyed during the pandemic period. Furthermore, the sample's heterogeneity allows the results to be generalized to different occupational contexts. Another strength concerns the robustness of the procedures adopted in data analysis - exploratory, confirmatory, and multigroup factor analyzes were conducted to confirm the WAMI's psychometric qualities.

This study's limitations concern the fact that the participants from the southeast and with a monthly family income above R\$5,725.00 predominated. Hence, the sample does not portray workers in more marginalized professional positions proportionally. Furthermore, although this study presents measurement invariance tests for sex, which represents an advance compared to previous studies, future studies are expected to expand the measurement invariance assessment for other variables, such as educational level, working time, type of profession, and different employment contracts. As a research agenda, it would be also helpful to include participants with low monthly incomes from other regions of Brazil, and socially vulnerable and marginalized groups, as addressed by the Psychology of Working Theory (Pires & Andrade, 2022).

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