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The Valencia Eustress-Distress Appraisal Scale (VEDAS): Validation of the Italian Version

Annamaria Di Fabio ^{1,*}, José María Peiró ^{2,†}, Isabel Rodríguez ^{2,†} and Malgorzata Wanda Kozusznik ³

- Department of Education and Psychology, University of Florence, 50135 Florence, Italy
- Research Institute IDOCAL, University of Valencia, & IVIE, 46010 Valencia, Spain; josemaria.peiro@ivie.es (J.M.P.); isabel.rodriguez@uv.es (I.R.)
- Faculty of Psychology and Educational Sciences, University of Leuven, 3000 Leuven, Belgium; gosia.kozusznik@kuleuven.be
- * Correspondence: adifabio@psico.unifi.it
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Abstract: The aim of this study is to validate the Italian version of the Valencia Eustress-Distress Appraisal Scale (VEDAS). Two hundred and thirty-two Italian workers were involved in the study. Dimensionality, reliability, and concurrent validity were analyzed. Confirmatory factor analysis supported a four-dimensional structure. In addition, the Italian version of the scale showed good internal consistency and validity. The results indicate that the Italian version of the VEDAS is a valid instrument for measuring eustress and distress appraisal in the Italian context.

Keywords: eustress; distress; Valencia Eustress-Distress Appraisal Scale (VEDAS); Italian version; psychometric properties

1. Introduction

The world of work in the 21st century is characterized by continuous change and transitions [1–3], with individuals in organizational contexts facing increased challenges. These ongoing and repeated tensions can lead workers to experience more stress [4]. In this context, the psychology of sustainability and sustainable development [5] represents a promising area of research and intervention for promoting healthy workers and organizations [6–9]. This agenda is aligned with the 17 sustainable development goals proposed by the United Nations [10], which highlight the importance of strengthening and advancing the development of individuals, families, communities, and organizations in order to promote sustainable development and global growth. Organizations need to embrace a new awareness of the psychology of sustainability and sustainable development for human resources [5–7]. From this perspective, the focus is on developing workers as resources with the need to flourish, turning constraints into resources, and sustaining resilience in facing the challenges of the post-modern work environment [6,8,9,11]. A business is healthy [6,8,9,12,13], in terms of being a sustainable business for the present and for the future, when both the workers and the organization are able to thrive. The organization adopts a meaningful temporal perspective that is useful for the workers and the business, using its awareness to build and develop step by step as a healthy organization.

In the continuously changing world of work in the 21st century, work stress is the common response to the experience of incessant acceleration [14] and a possible reaction to repeated challenges. In the literature, the construct of work stress can be understood in two ways. A more traditional approach considers that work stress can produce negative outcomes for both individuals [15] and

organizations [16]. A positive approach from the positive psychology perspective [17,18] highlights that stress experiences can also foster positive and favorable consequences [19,20] and be associated with well-being, work satisfaction, organizational commitment [21], and engagement [20].

However, a more complete study of stress would involve addressing it from both perspectives. One of the theoretical frameworks that allows this integration is the transactional model [22]. This approach to stress [22] emphasizes that the appraisal of a situation is essential to the stress experience and its outcomes. According to Lazarus [23], distress refers to the appraisal of demanding situations in work contexts as a source of harm or threat (anticipation of harm) [23], and it can be associated with negative emotions, disturbed bodily states [24], strain, and burnout [4,20]. In contrast, eustress refers to the appraisal of demands as challenges or opportunities that the individual feels confident about overcoming by employing his or her coping resources [25]. Eustress can have positive consequences in terms of healthy bodily states [24], well-being [21], engagement [26], and decreased burnout [27]. Moreover, distress and eustress appraisals can occur simultaneously in response to the same demanding situation [28] and coexist within the same worker as a response to the same job demand [4,22,28,29]. Identifying both sides of the stress appraisal is a challenging issue in obtaining a more comprehensive and balanced view of the stress experience. Along with diagnostic information about workers' distress experiences, pointing out taxing and unhealthy work activities and conditions, it is important to identify and assess positive and challenging experiences arising from work activities and contexts. The latter have been characterized as eustress, even though they have hardly been assessed and studied until now. However, eustress may be one of the most powerful resources to prevent or reduce distress at work. Thus, the combined consideration of employees' eustress and distress experiences at work and their interactions may play a significant role in making well-being and performance at work more sustainable, and it can be an important factor in the sustainability of organizations in current societies.

The Valencia Eustress Distress Appraisal Scale [VEDAS, 4] stems from this transactional approach and was developed to detect simultaneous appraisals of eustress and distress. The fundamental aspect that makes this questionnaire unique and advanced on the international scenario is that it allows the simultaneous assessment of the same stressful situation in terms of whether the individual perceives it as an opportunity/challenge (eustress) and/or as a source of pressure (distress). The VEDAS has highly satisfactory psychometric properties, with alpha coefficients ranging from 0.70 to 0.85 for the distress and eustress factors and a good fit for its factorial structure (RMSEA = 0.07; CFI = 0.98; NNFI = 0.96; and SRMR = 0.06 for distress and RMSEA = 0.07; CFI = 0.97; NNFI = 0.97; SRMR = 0.08 for the eustress scale) (Rodriguez et al., 2013). Moreover, the authors of the scale demonstrated the convergent validity of the VEDAS scores by showing significant correlations between the factors of the distress and eustress appraisal scales and burnout, work engagement, satisfaction, and general psychological health. To do so, the VEDAS scale asks the person to evaluate to what extent a given situation in the work context represents a pressure and to what extent it represents an opportunity/challenge [4].

In this way, the added value of this scale is that it goes beyond a merely negative evaluation of demanding situations and recognizes possible challenges and opportunities to evolve and grow, in addition to the subjective assessment of pressure and threat [4,22,23,25]. Different studies have recognized this important contribution of the VEDAS. For example, Paškvan, Kubicek, Prem, and Korunka [26] point out that demands should be directly appraised as hindrances and challenges. The authors mention the contribution of Rodríguez, Kozusznik, and Peiró [4] on this issue, and, following this line of thought, they include a direct measure of cognitive appraisal for work intensification in their studies, suggesting that further studies should measure cognitive appraisal with two separate scales (e.g., as in Rodríguez et al. [4]). González-Navarro, Llinares-Insa, Zurriaga-Llorens, and Lloret-Segura [27] designed a scale to evaluate work conflict (WCAS) as a challenge and as a threat using the method utilized by Rodríguez, Kozusznik, and Peiró [4]. Wetzelberger [28] created a scale to assess stressors as both a challenge and a hindrance (as suggested by Rodríguez et al. [4]). Quinones, Rodríguez-Carvajal, and Griffiths [29] consider potential cross-relationships between the emotion

regulation strategies and eustress and distress responses "since current interpretations of stress theory state eustress and distress routes may occur independently or even coexist" (Rodríguez et al. [4], p. 7). Their results support the appraisal of stressors as challenge or hindrance. Finally, Gerich [30] found support for models that view challenge and hindrance appraisals as a two-dimensional rather than one-dimensional concept (for example, Kożusznik et al. [31]), encouraging researchers and practitioners to consider challenge and hindrance appraisals before drawing a priori conclusions about the health impact of working conditions and planning interventions for workplace health promotion.

Thus, the VEDAS represents a particularly innovative tool because it is the first instrument available in the literature that allows the worker to appraise the same situation, on the one hand, in terms of the positive appraisal of challenge (sustainable), and on the other, in terms of the negative evaluation of pressure (at risk, because it is not completely sustainable) [4]. On the basis of this double detection for each item, it is possible to gain a greater and even more refined awareness of the workers' condition in the organization. This information makes it possible to not only focus on the negative aspects of stress, but also to consider the existence of a positive evaluation of the demanding situation associated with productive activation and vital energy. This positive evaluation can play a role as a resource that may be useful in dealing with the demands experienced in this situation.

In addition, the VEDAS can be used at both the individual and work unit levels. Kozusznick, Rodríguez, and Peiró [32] used it from a collective perspective that emphasizes the role of contexts and intersubjective experiences of stress. They found three different types of stress climates that may change over time and can influence the well-being of the team members. Their study adds information to the scarce literature examining contextual factors that can ameliorate or reduce the negative impact of stressors, providing a collective or "ecological" approach to the study of eustress and distress at work.

Taking this into account, the VEDAS is a tool that is aligned with the framework of the psychology of sustainability and sustainable development [5,6,33]. This tool broadens the concept of sustainability by emphasizing the psychological dimensions and contributions of human experience. By extending a perspective exclusively based on the ecological and socio-economic environment to encompass psychological perspectives, this approach seeks to enhance the quality of life of each person [5], while also contributing to sustainable development and growth. The psychology of sustainability and sustainable development demands a new awareness of the functioning of human resources in these turbulent times. This perspective surmounts the traditional framework of sustainability based on the three "Es" (economy, equity, ecology), and it extends and reformulates the traditional definition of sustainability focused on avoiding and preventing exploitation, depletion, and irreversible alteration. The new framework emphasizes enrichment, growth, and flexible change [5]. On the basis of this perspective, sustainability is centered not only on using increasingly smaller amounts of resources, but also on regenerating resources [5].

For all these reasons, this instrument is important for the in-depth study of the construct of work stress in terms of both eustress and distress, and it can contribute to research in the Italian context, considering in particular the population of Italian workers in the social services sector and the legal requirements in Italy to assess and analyze stress at work and their relationships, in order to prevent psychosocial risks at work. Social service professionals are often highly qualified workers who are fully engaged with today's social problems. They provide primary care to homeless people, immigrants, people with disabilities, women, families, children, adolescents, and older people. Social work is a demanding job in which individuals often work within statutory organizations that are subject to frequent changes in policies and practices, with severe limitations on resources [34]. Different factors play an important role in the experience of work stress in this area (for example, the threat of violence in the workplace, lack of control over work issues, or work overload) [35]. In addition, social work takes place in complex social situations. It involves emotional labor, an element of work described as relevant to the experience of work-related stress [36]. As Collins [34] points out, due to the very nature of stress, the research has tended to focus on negatives in social workers' lives, and little

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attention has been given to the positive aspects of social work. Thus, the aim of the present study is to offer a first contribution to the validation of the Italian version of the VEDAS in workers from the social sector, as for the original version [4]. Dimensionality, reliability, and concurrent validity will be verified. Regarding concurrent validity, the following hypotheses are formulated, consistent with the literature [4]:

Hypothesis 1. Eustress scores are expected to show negative low correlations with the Maslach Burnout Inventory (MBI).

Hypothesis 2. Eustress scores are expected to show positive low correlations with the Utrecht Work Engagement Scale (UWES).

Hypothesis 3. Eustress scores are expected to show positive low correlations with the Work Satisfaction Scale (WSS).

Hypothesis 4. Eustress scores are expected to show negative low correlations with the General Health Questionnaire-12 (GHQ-12).

Hypothesis 5. Distress scores are expected to show positive low correlations with the Maslach Burnout Inventory (MBI).

Hypothesis 6. Distress scores are expected to show negative low correlations with the Utrecht Work Engagement Scale (UWES).

Hypothesis 7. Distress scores are expected to show negative low correlations with the Work Satisfaction Scale (WSS).

Hypothesis 8. Distress scores are expected to show negative low correlations with the General Health Questionnaire-12 (GHQ-12).

2. Method

2.1. Participants

The study participants were 232 Italian workers from the social services sector in the Tuscany region (female = 84.91%; males = 15.09%; mean age = 46.10 years, SD = 9.46). The participants represented different occupations (e.g., assistance workers, educators, people responsible for social services). Italian workers from the social sector consider their work to be stressful [37], which makes them a relevant sample for this initial study. The response rate obtained was 94%. The criteria for inclusion in the study were that the participant had to be a social services worker in Tuscany and voluntarily agree to participate.

2.2. Measures

The Italian version of the Valencia Eustress-Distress Appraisal Scale (VEDAS). As in the original instrument [VEDAS, 4], the Italian version assesses eustress in terms of productive activation, enhancement of vital energy, and positive evaluation of demanding situations at work, and it assesses distress as the perception of demanding situations in work contexts as associated with negative emotions and strain. It is composed of 20 items, with a response format on a Likert scale (from $1 = "With \ all \ evidence, it \ is \ not"$ to $6 = "With \ all \ evidence, it \ is"$). Respondents are asked to evaluate whether a demanding situation at work is at the same time an opportunity or challenge (eustress) and a pressure (distress). The scale presents an equivalent four-factor structure for eustress and

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distress: (1) *Relationships* (five items; e.g.,: "Lack of social support from people at work"); (2) *Personal accountability* (four items; e.g., "Having to take a risk"); *Home-Work Balance* (five items: e.g.,: "Demands that work makes on my private/social life"); and *Workload* (six items; e.g.,: "Having to work very long hours"). The items on the original version of the VEDAS were translated through the back-translation method [31]. The scale was translated into the Italian language by one translator and then back-translated into English by an independent translator (a native English speaker) who was blinded to the original questionnaire. The results of the translation were compared with the original items in order to check that the items had the same meaning. Then, the translated items were refined by a professor of work and organizational psychology to enhance their comprehension and clarity and again discuss them with the native English-speaking person.

Maslach Burnout Inventory (MBI). The Italian version [38] of the Maslach Burnout Inventory [39] assesses burnout, a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. It consists of 16 items, with a response format on a Likert scale from 0 (never) to 6 (every day). Examples of items are: "I feel used up at the end of the workday" and "I feel burned out from my work". A single burnout score was used, where higher scores correspond to higher levels of burnout. Cronbach's alpha coefficient for the total score was 0.81.

Utrecht Work Engagement Scale (UWES). The Italian version [40] of the UWES [41] detects work engagement, a sense of energetic and effective connection with one's work activities that makes individuals able to deal well with the demands of their job. It is composed of nine items, with a response format on a Likert scale from 0 (never) to 6 (every day). Examples of items are: "I feel happy when I am working intensely" and "I am proud of the work that I do". A total engagement score was used, where higher scores correspond to higher levels of engagement. Cronbach's alpha coefficient for the total score was 0.92.

Work Satisfaction Scale (WSS). The Italian version [42] of the Work Satisfaction Scale (WSS) [43], adapted from the Minnesota Satisfaction Questionnaire [44], detects work satisfaction, defined as the degree to which workers appreciate and are satisfied with their work. It consists of five items, with a response format on a Likert scale from 1 (not satisfied) to 5 (extremely satisfied). An example of an item is "Overall, how satisfied are you with your job?". Cronbach's alpha coefficient for the total score was 0.72.

General Health Questionnaire-12 (GHQ-12). The Italian version [45] of the General Health Questionnaire-12 [46] detects a general state of health of workers. It consists of 12 items, with a response format on a Likert scale from 1 (*much less than usual*) to 4 (*more than usual*) for items 1 through to 6, and from 1 (*not at all*) to 4 (*much more than usual*) for items 7 to 12. A higher score means better general health. An example of an item is "(Have you recently) been able to concentrate on whatever you're doing?" Cronbach's alpha coefficient for the total score was 0.83.

2.3. Procedure

The questionnaires were administered to workers in groups and in agreement with the requirements of privacy and informed consent of Italian law. The procedure consisted of two phases. In the first phase, the participants were instructed on the questionnaires' administration. In the second phase, the participants were asked to fill out the questionnaires in small groups without interacting with each other and with a researcher always present. The order of administration of the different scales was counterbalanced to control the effects of presentation order.

2.4. Data Analysis

Correlations between the items were carried out. We checked the sample's statistical power by means of G*Power software [47], confirming that the sample showed sufficient statistical power (>0.80) to demonstrate a small effect size (r = 0.20).

The factorial structure of the Italian version of the VEDAS was also tested using Confirmatory Factor Analysis (CFA) with AMOS (maximum likelihood method). Different indices were considered

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to estimate the fit of empirical data to the theoretical model: the ratio between chi-square and degrees of freedom (χ^2 /df), the Tucker-Lewis Index (TLI), the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Squared Residual (SRMR). Values of the ratio between the chi-square and the degrees of freedom (χ^2 /gdl) of between 1 and 3 indicate a good adaptation. For the TLI [48,49] and CFI [43], values of 0.90 and higher are indicators of a good fit. Values of the RMSEA and SRMR less than 0.08 indicate a good fit [50,51]. Analysis of residuals was also carried out. The reliability of the Italian version of the VEDAS was verified using Cronbach's alpha coefficient. Concurrent validity was examined through correlations of the Italian version of the VEDAS with the MBI, UWES, WSS, and GHQ-12. In addition, partial correlations were run between the VEDAS and the criterion measures, controlling for gender.

3. Results

Correlations between the items using the six-point response scale for the eustress scale and the distress scale are reported in Appendix A.

Confirmatory Factor Analysis reveals the factorial structure of the Italian version of the VEDAS. Based on the original version of the Vedas [4], we compared a one-factor solution and a solution with four correlated factors for both the distress and eustress scales because the exploratory factor analysis of the original version initially showed one dominant factor and three secondary factors for the distress and eustress scales.

The *Goodness of Fit* indices are reported in Table 1. A structure with four correlated factors for both eustress and distress was found, as in the original version of the VEDAS [4], and it had a better fit than a one-factor solution. The compared models were significantly different, with $\Delta \chi^2$ (6) = 96.46, p < 0.001 for eustress, and $\Delta \chi^2$ (6) = 141.45 for distress.

	χ^2	df	χ^2/df	TLI	CFI	RMSEA	SRMR
Eustress							
Four-factor model	336.25	164	2.05	0.90	0.91	0.07 [0.06-0.08]	0.05
One-factor model	432.71	170	2.55	0.85	0.87	0.08 [0.07-0.09]	0.06
Distress							
Four-factor model	322.76	164	1.96	0.92	0.93	0.06 [0.05-0.07]	0.05
One-factor model	464.21	170	2.73	0.86	0.87	0.09 [0.08-0.10]	0.05

Table 1. Fit Indices for Measurement Models for Eustress and Distress (N = 232).

Residuals for both eustress and distress have been analyzed by means of their distribution, and none of them presented a value greater than 2.

The factor loadings are reported in Table 2. All loadings were statistically significant (p < 0.001).

Item and Name for Each Factors	Eustress Factor Loadings	Distress Factor Loadings
F1. RELATIONSHIPS		
1. Lack of social support from people at work	0.59	0.62
2. Discrimination and favoritism	0.73	0.78
3. Feeling isolated	0.85	0.88
4. Being undervalued	0.83	0.86
5. Inadequate feedback about my own performance	0.72	0.78
F2. PERSONAL ACCOUNTABILITY		
6. Having to take risks	0.65	0.67
7. Dealing with ambiguous or "delicate" situations	0.66	0.71
8. Having to adopt a negative role (such as sacking someone)	0.68	0.67
9. Implications of mistakes you make	0.65	0.69

Table 2. Factor loadings in the CFA analysis (Four-factor model).

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Table 2. Cont.

Item and Name for Each Factors	Eustress Factor Loadings	Distress Factor Loadings
F3. HOME-WORK BALANCE		
10. My partner's negative attitude towards my job and career	0.52	0.55
11. Absence of emotional support from others outside work	0.69	0.66
12. Demands that work makes on my private/social life	0.69	0.68
13. Lack of practical support from others outside work	0.68	0.64
14. Pursuing a career at the expense of home life	0.63	0.69
F4. WORKLOAD		
15. Taking my work home	0.67	0.61
16. Working at a level below my level of ability	0.54	0.51
17. Not being able to "switch off" at home	0.66	0.68
18. Inadequate or poor quality of training/management development	0.48	0.58
19. Having to work very long hours	0.67	0.71
20. Conflicting job tasks and demands in the role I play	0.74	0.77

Regarding reliability, the Cronbach's alphas for eustress are 0.93 for the total score, 0.86 for *Relationships*, 0.75 for *Personal Accountability*, 0.77 for *Home-work Balance*, and 0.80 for *Workload*.

The Cronbach's alphas for distress are 0.94 for the total score, 0.88 for *Relationships*, 0.78 for *Personal Accountability*, 0.79 for *Home-work Balance*, and 0.81 for *Workload*.

Kozusznik et al. [52] reported the results of a Rasch Analysis of the VEDAS that resulted in the identification of the need to modify the original six-point scale. Specifically, a three-point response scale functions better than the original six-point response scale. The three-point response scale was produced by collapsing responses 1 and 2, 3 and 4, and 5 and 6. Thus, we carried out an additional CFA on the same Italian VEDAS items, but with collapsed response categories. The responses were recorded in the following way: 1 and 2 = 1; 3 and 4 = 2; and 5 and 6 = 3. The fit indices are reported in Table 3.

Table 3. Fit Indices for Measurement Models for Eustress and Distress (collapsed response categories) (N = 232).

	χ²	df	χ^2/df	TLI	CFI	RMSEA	SRMR
Eustress							
Four-factor model	299.53	164	1.83	0.91	0.92	0.06 [0.05-0.07]	0.06
One-factor model	393.97	170	2.32	0.85	0.86	0.08 [0.07-0.09]	0.06
Distress							
Four-factor model	290.99	164	1.77	0.93	0.94	0.06 [0.05-0.07]	0.05
One-factor model	364.62	170	2.15	0.89	0.90	0.07 [0.06-0.08]	0.05

Residuals for both eustress and distress have been analyzed by means of their distribution, and none of them presented a value greater than 2. The factor loadings are reported in Table 4. All loadings were statistically significant (p < 0.001).

Table 4. Factor loadings in the CFA analysis (four-factor model) (collapsed response categories).

Item and Name for Each Factor	Eustress Factor Loadings	Distress Factor Loadings
F1. RELATIONSHIPS		
Lack of social support from people at work	0.56	0.60
2. Discrimination and favoritism	0.71	0.77
3. Feeling isolated	0.79	0.86
4. Being undervalued	0.79	0.82
5. Inadequate feedback about my own performance	0.70	0.76

Table 4. Cont.

Item and Name for Each Factor	Eustress Factor Loadings	Distress Factor Loadings
F2. PERSONAL ACCOUNTABILITY		
6. Having to take risks	0.60	0.62
7. Dealing with ambiguous or "delicate" situations	0.65	0.69
8. Having to adopt a negative role (such as sacking someone)	0.60	0.64
9. Implications of mistakes you make	0.61	0.67
F3. HOME-WORK BALANCE		
10. My partner's negative attitude towards my job and career	0.52	0.57
11. Absence of emotional support from others outside work	0.70	0.67
12. Demands that work makes on my private/social life	0.65	0.64
13. Lack of practical support from others outside work	0.65	0.67
14. Pursuing a career at the expense of home life	0.59	0.68
F4. WORKLOAD		
15. Taking my work home	0.63	0.54
16. Working at a level below my level of ability	0.51	0.51
17. Not being able to "switch off" at home	0.67	0.67
18. Inadequate or poor quality of training/management development	0.44	0.51
19. Having to work very long hours	0.68	0.72
20. Conflicting job tasks and demands in the role I play	0.72	0.78

Comparing the four-factor non-collapsed VEDAS (six response options) and the four-factor collapsed VEDAS (three response options), the fit indices are significantly better ($\Delta\chi^2$ (6) = 36.72, p < 0.001 for eustress, and $\Delta\chi^2$ (6) = 31.77 for distress) when the response categories are collapsed, suggesting the possibility of using this format. Moreover, in this case, a structure with four correlated factors for both eustress and distress had a better fit than a one-factor solution.

Regarding reliability, the Cronbach's alphas for eustress are 0.91 for the total score, 0.83 for *Relationships*, 0.71 for *Personal Accountability*, 0.75 for *Home-work Balance*, and 0.78 for *Workload*.

The Cronbach's alphas for Distress are 0.93 for the total score, and 0.87 for *Relationships*, 0.78 for *Personal Accountability*, 0.74 for *Home-work Balance*, and 0.79 for *Workload*.

The correlations among the four factors of the VEDAS are reported in Table 5. The top half of the matrix reports the results of the non-collapsed analyses, and the bottom half of the matrix presents the results of the collapsed analyses.

Table 5. Correlations among the four factors of the VEDAS.

	1.	2.	3.	4	5.	6.	7.	8.
	1.	۷.	3.	4.	3.	0.	7.	0.
1. Eustress Relationships	-	0.44 **	0.63 **	0.66 **	0.02	0.02	-0.03	-0.04
2. Eustress Personal Accountability	0.68 **	-	0.44 **	0.42 **	0.21 **	0.28 **	0.18 **	0.27 **
3. Eustress Home-work balance	0.61 **	0.54 **	-	0.62 **	-0.02	0.01	0.11 *	-0.01
4. Eustress Workload	0.67 **	0.64 **	0.50 **	-	-0.06	-0.07	-0.07	-0.08
5. Distress Relationships	0.01	0.21 **	-0.05	-0.07	-	0.69 **	0.75 **	0.76 **
6. Distress Personal Accountability	0.03	0.24 **	0.03	-0.08	0.73 **	-	0.62 **	0.71 **
7. Distress Home-work balance	-0.02	0.24 **	0.15*	-0.09	0.68 **	0.60 **	-	0.72 **
8. Distress Workload	-0.04	0.32 **	-0.06	-0.05	0.73 **	0.70 **	0.68 **	-

Note. N = 232. * p < 0.05. **p < 0.01.

Correlations between the VEDAS eustress and distress scales and the related constructs are reported in Table 6.

These results are consistent with those obtained for the original version of the VEDAS [4]. In fact, for the composite score, the eustress correlations are -0.11 (for the Italian version) and -0.12 (for the original version) ($Z^* = 0.12$) with the MBI; 0.13 (for the Italian version) and 0.15 (for the original version) ($Z^* = -0.25$) with the UWES; 0.06 (for the Italian version) and 0.04 (for the original version) with the WSS ($Z^* = 0.24$); and finally, -0.03 (for the Italian version) and -0.01 (for the original version) with the GHQ-12 ($Z^* = -0.24$). The correlations of distress values with the MBI scores are 0.19 (for the Italian version) and 0.20 (for the original version) ($Z^* = -0.13$). The correlations of VEDAS distress

with the UWES are -0.18 (for the Italian version) and -0.06 (for the original version) ($Z^* = -1.49$). With the WSS, the correlations obtained are -0.18 (for the Italian version) and -0.14 (for the original version) ($Z^* = -0.50$). Finally, the correlations of VEDAS—Distress are -0.13 (for the Italian version) and -0.15 (for the original version) with the GHQ-12 ($Z^* = -0.50$). All the Fisher Z confirmed that the correlations obtained by the Italian and Spanish samples do not differ significantly, despite the different sample sizes. As for the original version of the VEDAS [4], the total eustress score correlated positively with work engagement, and the total distress score correlated positively with burnout. Furthermore, eustress correlated negatively with burnout, and distress correlated negatively with work engagement, work satisfaction, and general health. The correlations of the four subscales with their corresponding dimensions of distress and eustress were high. The highest correlation among the subscales was between Eustress Relationships and Eustress Workload (r = 0.66) and between Distress Relationships and Distress Workload (r = 0.76). It is also interesting to note that the dimensions of eustress are not correlated with the dimensions of distress, except in one case. Eustress for personal accountability is positively correlated with all the dimensions of distress. Partial correlations were also run between the VEDAS and the criterion measures to see if controlling for gender has an influence on the bivariate associations. The results showed that the greatest difference that emerged was 0.02, and therefore negligible.

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Table 6. Correlations of the Italian version of the VEDAS with MBI, UWES, WSS, and GHQ-12.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Eustress Relationships	-													
2. Eustress Personal Accountability	0.44 **	-												
3. Eustress Home-work balance	0.63 **	0.44 **	-											
4. Eustress Workload	0.66 **	0.42 **	0.62 **	-										
5. Eustress total score	0.86 **	0.69 **	0.81 **	0.85 **	-									
6. Distress Relationships	0.02	0.21 **	-0.02	-0.06	0.04	-								
7. Distress Personal Accountability	0.02	0.28 **	0.01	-0.07	0.07	0.69 **	-							
8. Distress Home-work balance	-0.03	0.18 **	0.11	-0.07	0.04	0.75 **	0.62 **	-						
9. Distress Workload	-0.04	0.27 **	-0.01	-0.08	0.03	0.76 **	0.71 **	0.72 **	-					
10. Distress total score	-0.01	0.26 **	0.02	-0.07	0.05	0.81 **	0.83 **	0.88 **	0.88 **	-				
11. MBI	-0.01	-0.09	-0.04	-0.01	-0.11*	0.15 *	0.13 *	0.19 **	0.19 **	0.19 **	-			
12. UWES	0.04	0.05	0.10	0.17 **	0.13 *	-0.17 **	-0.14	-0.13*	-0.19**	-0.18 **	-0.15*	-		
13. WSS	0.05	0.04	0.08	0.13	0.06	-0.18 **	-0.12	-0.13*	-0.20 **	-0.18 **	-0.34 **	0.43 **	-	
14. GHQ-12	-0.01	-0.04	-0.01	-0.06	-0.03	-0.13*	-0.07	-0.13*	-0.12	-0.13*	-0.33 **	0.36 **	0.43 **	-

Note. N = 232. * p < 0.05. ** p < 0.01.

4. Discussion

The aim of this study was to present the validation of the Italian version of the Valencia Eustress-Distress Appraisal Scale (VEDAS). The Confirmatory Factor Analysis showed a model with four correlated factors (*Relationships, Personal Accountability, Home-work Balance,* and *Workload*) that assess both eustress and distress, as in the original version of the VEDAS [4], with a slightly better fit obtained when modifying the original six-point response format by collapsing it into a three-point response scale. Regarding reliability, both eustress (total score and four factors) and distress (total scores and four factors) showed good internal consistency.

Small to moderate correlations between the Italian version of the VEDAS and the MBI, UWES, WSS, and GHQ-12 showed acceptable concurrent validity of the VEDAS scores. Small to moderate significant correlations emerged between both eustress and distress and the other theoretically associated constructs (burnout, work engagement, satisfaction, and general health). In particular, it is possible to note that the total eustress score was negatively correlated with burnout and positively correlated with work engagement, whereas the total distress score was positively correlated with burnout and negatively correlated with work engagement, work satisfaction, and general health, confirming the results for the original version of the VEDAS [4]. These results also confirmed other findings reported in the literature. A negative relationship emerged between eustress and burnout [31], and a positive relationship emerged with work engagement [53], highlighting that individuals who positively evaluate demanding situations at work seem less emotionally exhausted and depersonalized, and more energetic and effectively connected with their work. With regard to distress, positive associations emerged with burnout [54], and negative associations with work engagement [55], work satisfaction [56], and general health [45]. These results show that individuals who perceive demanding situations at work to be related to negative emotions and strain seem to experience more burnout and are less engaged in their work and less satisfied with their work, with a negative effect on their general health.

The results show that eustress for personal accountability is positively correlated with all the dimensions of distress. This result reveals that challenge appraisals can be accompanied by a certain degree of distress appraisal, as suggested by the literature [4].

The results of the present study suggest that the Italian version of the VEDAS represents a promising instrument to detect both eustress and distress in the Italian context with workers from the social sector, although further studies are needed to verify different validity aspects and invariance with the original Spanish version. Nevertheless, it is necessary to highlight another limitation, which is that this study focused on only one sector (social services). Therefore, it could be useful to expand the study of the psychometric properties of the scale to include participants from different sectors and different organizations.

Despite this limitation, the Italian version of the VEDAS is a promising instrument to detect both eustress and distress appraisal, allowing for further research on this construct and new opportunities to simultaneously assess eustress and distress in Italy. The existing measures have at least one of the following problems: (1) they do not evaluate the simultaneous appraisal of distress and eustress of the same stressful situation; or (2) they cannot be used in different occupations because the wording of their items is too specific.

In fact, the fundamental aspect that makes this instrument unique and advanced is that it allows for the simultaneous evaluation of the same situation as an opportunity/challenge (eustress) and as a source of pressure (distress). Thus, this scale has the added value of going beyond a solely negative view of change by considering demanding situations not only as sources of pressure and threat, but also as challenges with opportunities for growth. This innovative way of measuring work stress is much more helpful for psychosocial risk prevention professionals in organizations and for clinical psychologists. The VEDAS provides professionals with information about important resources (the eustress appraised in the situation by the employees) that may be relevant for overcoming the taxing components of the same work experience. In our view, this much more clear and specific focus

on eu- and dis-stress is an important advantage for theoretical analysis and for designing effective interventions for distress management and eustress enhancement, improving these interventions by profiting from the interaction between the two experiences.

The use of the VEDAS introduces promising possibilities for enhancing healthy and flourishing workers and healthy organizations [6], with a focus on regenerating resources aligned with the psychology of sustainability and sustainable development [5,7,8,33]. Moreover, it allows researchers and professionals to identify, in the same situation and for the same source of stress, the level of demands experienced and the resources that may be helpful in dealing with these demands. To a large extent, this depends on the appraisal of the situation as a threat and/or as an opportunity. In this way, a more balanced and richer conceptualization and assessment of stress at work can be obtained that may be of special significance in the analysis of psychosocial risk and prevention.

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Appendix A

Table A1. Means and standard deviations of the 20 items using the six-point response scale for both the eustress scale and the distress scale.

	Eustres	s Scale	Distres	s Scale
	M	SD	M	SD
Item 1	3.47	1.64	3.84	1.66
Item 2	3.37	1.94	3.69	1.94
Item 3	3.26	1.84	3.63	1.95
Item 4	3.56	1.90	3.91	1.91
Item 5	3.50	1.67	3.75	1.66
Item 6	3.12	1.88	3.10	1.87
Item 7	3.30	1.76	3.44	1.80
Item 8	3.41	1.66	3.47	1.74
Item 9	3.21	1.64	3.29	1.71
Item 10	3.34	1.93	3.83	1.96
Item 11	3.79	1.60	3.91	1.53
Item 12	3.75	1.56	3.74	1.54
Item 13	3.41	1.94	3.88	2.00
Item 14	3.87	1.57	4.08	1.57
Item 15	3.18	1.80	3.73	1.88
Item 16	3.25	1.65	3.53	1.70
Item 17	3.33	1.84	3.89	1.89
Item 18	3.40	1.55	3.51	1.57
Item 19	3.44	1.66	3.80	1.73
Item 20	3.66	1.59	3.76	1.66

Table A2. Correlations between the 20 items using the six-point response scale for the eustress scale.

	eus 1	eus 2	eus 3	eus 4	eus 5	eus 6	eus 7	eus 8	eus 9	eus 10	eus 11	eus 12	eus 13	eus 14	eus 15	eus 16	eus 17	eus 18	eus 19	eus 20
eus 1	-																			
eus 2	0.46 **	-																		
eus 3	0.47 **	0.62 **	-																	
eus 4	0.41 **	0.60 **	0.67 **	-																
eus 5	0.42 **	0.49 **	0.56 **	0.61 **	-															
eus 6	0.27 **	0.37 **	0.41 **	0.036 **	0.46 **	-														
eus 7	0.28 **	0.32 **	0.31 **	0.35 **	0.40 **	0.50 **	-													
eus 8	0.49 **	0.43 **	0.50 **	0.48 **	0.46 **	0.39 **	0.39 **	-												
eus 9	0.38 **	0.33 **	0.40 **	0.35 **	0.43 **	0.42 **	0.47 **	0.44 **	-											
eus 10	0.27 **	0.47 **	0.42 **	0.41 **	0.37 **	0.24 **	0.29 **	0.25 **	0.22 **	-										
eus 11	0.40 **	0.35 **	0.42 **	0.39 **	0.44 **	0.35 **	0.34 **	0.31 **	0.21 **	0.34 **	-									
eus 12	0.32 **	0.45 **	0.44 **	0.48 **	0.44 **	0.38 **	0.36 **	0.35 **	0.33 **	0.32 **	0.48 **	-								
eus 13	0.39 **	0.31 **	0.44 **	0.42 **	0.45 **	0.29 **	0.33 **	0.29 **	0.30 **	0.27 **	0.58 **	0.48 **	-							
eus 14	0.37 **	0.41 **	0.46 **	0.44 **	0.37 **	0.19 **	0.28 **	0.40 **	0.35 **	0.33 **	0.42 **	0.39 **	0.41 **	-						
eus 15	0.42 **	0.43 **	0.49 **	0.45 **	0.42 **	0.28 **	0.32 **	0.40 **	0.29 **	0.28 **	0.33 **	0.42 **	0.34 **	0.40 **	-					
eus 16	0.22 **	0.40 **	0.39 **	0.40 **	0.46 **	0.20 **	0.21 **	0.25 **	0.17 *	0.33 **	0.33 **	0.35 **	0.26 **	0.26 **	0.48 **	-				
eus 17	0.45 **	0.50 **	0.47 **	0.42 **	0.36 **	0.28 **	0.34 **	0.38 **	0.26 **	0.38 **	0.44 **	0.37 **	0.33 **	0.43 **	0.46 **	0.33 **	-			
eus 18	0.33 **	0.30 **	0.35 **	0.27 **	0.31 **	0.24 **	0.21 **	0.30 **	0.19 **	0.22 **	0.23 **	0.22 **	0.22 **	0.40 **	0.35 **	0.37 **	0.39 **	-		
eus 19	0.38 **	0.38 **	0.44 **	0.44 **	0.45 **	0.35 **	0.34 **	0.28 **	0.30 **	0.30 **	0.37 **	0.49 **	0.38 **	0.36 **	0.44 **	0.34 **	0.54 **	0.30 **	-	
eus 20	0.44 **	0.54 **	0.59 **	0.54 **	0.56 **	0.51 **	0.42 **	0.53 **	0.48 **	0.36 **	0.37 **	0.45 **	0.38 **	0.39 **	0.45 **	0.35 **	0.40 **	0.33 **	0.50 **	-

N = 232. ** *p* < 0.01.

Table A3. Correlations between the 20 items using the six-point response scale for the distress scale.

	dis 1	dis 2	dis 3	dis 4	dis 5	dis 6	dis 7	dis 8	dis 9	dis 10	dis 11	dis 12	dis 13	dis 14	dis 15	dis 16	dis 17	dis 18	dis 19	dis 20
dis 1	-																			
dis 2	0.49 **	-																		
dis 3	0.52 **	0.61 **	-																	
dis 4	0.47 **	0.61 **	0.62 **	-																
dis 5	0.45 **	0.58 **	0.66 **	0.62 **	-															
dis 6	0.40 **	0.45 **	0.49 **	0.42 **		-														
dis 7	0.44 **	0.41 **	0.40 **	0.38 **	0.43 **		-													
dis 8	0.49 **	0.48 **	0.51 **	0.45 **	0.48 **	0.38 **	0.49 **	-												
dis 9	0.42 **	0.46 **	0.49 **	0.42 **	0.51 **	0.46 **	0.49 **	0.50 **	-											
dis 10	0.31 **	0.46 **	0.48 **	0.44 **	0.36 **	0.21 **	0.34 **	0.25 **	0.25 **	-										
dis 11	0.39 **	0.40 **	0.48 **	0.48 **	0.45 **	0.39 **	0.35 **	0.27 **	0.27 **	0.35 **	-									
dis 12	0.37 **	0.48 **	0.48 **	0.52 **	0.42 **	0.39 **	0.42 **	0.32 **	0.35 **	0.37 **	0.44 **	-								
dis 13	0.36 **	0.44 **	0.47 **	0.51 **	0.47 **	0.40 **	0.37 **	0.30 **	0.38 **	0.33 **	0.59 **	0.44 **	-							
dis 14	0.47 **	0.49 **	0.55 **	0.49 **	0.50 **	0.33 **	0.42 **	0.53 **	0.46 **	0.36 **	0.45 **	0.41 **	0.44 **	-						
dis 15	0.47 **	0.36 **	0.46 **	0.41 **	0.42 **	0.37 **	0.41 **	0.37 **	0.40 **	0.24 **	0.31 **	0.49 **	0.28 **	0.35 **	-					
dis 16	0.28 **	0.32 **	0.35 **	0.45 **	0.45 **	0.23 **	0.35 **	0.30 **	0.34 **	0.35 **	0.29 **	0.36 **	0.28 **	0.32 **	0.41 **	-				
dis 17	0.46 **	0.44 **	0.46 **	0.43 **	0.40 **	0.47 **	0.44 **	0.37 **	0.37 **	0.35 **	0.51 **	0.43 **	0.39 **	0.45 **	0.45 **	0.30 **	-			
dis 18	0.31 **	0.43 **	0.43 **	0.44 **	0.43 **	0.33 **	0.37 **	0.37 **	0.29 **	0.39 **	0.35 **	0.35 **	0.38 **	0.39 **	0.36 **	0.34 **	0.37 **	-		
dis 19	0.44 **	0.48 **	0.49 **	0.50 **	0.48 **	0.51 **	0.46 **	0.34 **	0.39 **	0.32 **	0.39 **	0.53 **	0.38 **	0.41 **	0.37 **	0.38 **	0.55 **	0.35 **	-	
dis 20	0.50 **	0.56 **	0.57 **	0.54 **	0.54 **	0.53 **	0.55 **	0.45 **	0.49 **	0.35 **	0.32 **	0.46 **	0.41 **	0.45 **	0.42 **	0.37 **	0.54 **	0.44 **	0.65 **	-

N = 232. ** *p* < 0.01.

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