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Working excessively: theoretical and methodological considerations

ABSTRACT. Objective. Although the term workaholism is widely used, because of the changes in the nature of work and careers in recent years, research on this topic is still hindered by the absence of common definitions and measures. In recent times, some researchers have found evidence of the association of workaholism and poorer psychosocial well-being; hence, the need for a deeper understanding of the construct and its measurement. This study aims to examine the psychometric properties of the Italian version of the Work Excessively (WE) scale of the brief DUWAS (1, 2). **Methods.** The 5-item scale was submitted to a sample of 853 workers from different occupational sectors. The psychometric characteristics of the scale have been examined through explorative and confirmatory factor analysis and reliability. **Results.** The results of the data analysis confirm the one-factor solution, with a good internal consistency: the scale shows differences based on some demographic variables (gender and professional sector) and the correlations with other dimensions are in line with the indications in literature. **Conclusions.** Further investigations could concern the construct's reliability using a test-retest procedure as well as the analysis of relationships with other indicators of workaholism. The 5-item Italian version of the WE scale could be used in Italy to understand the role of this construct in working issues, particularly in studies on work related stress.

Key words: working excessively, workaholism, measurement, Italian validation.

RIASSUNTO. LAVORARE ECCESSIVAMENTE: CONSIDERAZIONI TEORICHE E METODOLOGICHE. *Introduzione.* Sebbene il termine workaholism sia ampiamente utilizzato, soprattutto in relazione ai cambiamenti che recentemente hanno riguardato il lavoro, la ricerca su questo tema è rallentata dall'assenza di definizioni e misure condivise. Recentemente, specifiche ricerche hanno evidenziato una relazione significativa tra il workaholism e alcuni indicatori di malessere psico-sociale al lavoro: da qui la necessità di approfondire la comprensione del costrutto e la sua rilevazione per ampliare la ricerca sul campo. Il presente studio indaga le caratteristiche psicometriche della versione italiana della scala di Lavoro Eccessivo (WE) tratta dalla versione breve della DUWAS (1, 2). *Metodo.* La scala WE, composta da 5 item, è stata tradotta e somministrata a un campione di 853 lavoratori, di diversi settori professionali. Le caratteristiche della scala sono state valutate attraverso analisi fattoriale esplorativa e confermativa e analisi di affidabilità. *Risultati.* I risultati evidenziano una struttura unifattoriale e un'affidabilità della scala soddisfacente; la scala è sensibile ad alcune differenze socio-anagrafiche (genere e settore professionale) e le correlazioni con altre variabili sono coerenti con le indicazioni della letteratura. *Conclusioni.* Ulteriori approfondimenti potrebbero riguardare l'affidabilità del costrutto attraverso procedura test-retest e l'analisi delle relazioni con altri indicatori di workaholism. La versione italiana della scala WE a 5 item può essere utilizzata in studi finalizzati a comprendere il ruolo del costrutto nelle dinamiche lavorative, con particolare attenzione per gli studi sullo stress lavoro-correlato.

Parole chiave: lavoro eccessivo, workaholism, misura, adattamento italiano.

Introduction

Work is one of the most important and positive values for people in many societies and cultures. However, the passion for work can often become obsessive: in this case work activities take up a disproportionate space in the person's identity and cause conflicts with other life domains (3). This over-commitment of energies and time to work has been used in literature to describe the notion of workaholism (4).

Even though considerable attention has been devoted to the concept of workaholism in recent years, scientific research on this phenomenon is still lacking and there is very little consensus about its meaning. Workaholism is not actually an official diagnosis in the Diagnostic and Statistical Manual (DSM-IV-TR), but it is considered a symptom of obsessive-compulsive personality disorder which is characterized by perfectionism, inflexibility, and preoccupation with work: "excessive devotion to work and productivity to the exclusion of leisure activities and friendships. This behavior is not accounted for by economic necessity" (5; p. 726).

From an organizational perspective, although initially some authors viewed workaholism positively (6, 7), today there is near consensus amongst scholars and researchers that workaholism is a negative psychological state akin to an addiction (8, 9). In fact, there is some empirical evidence, in the field of work and organizational psychology, of the association of workaholism and poorer psychophysical well-being (e.g. 10, 11, 12).

Research on workaholism has been hampered by a lack of consensus on construct definition and measurement. Despite this, during the last decade several authors have worked on the construction and validation of measuring instruments to be used for research purposes.

Based on these considerations, the aim of the current study is to validate an Italian version of one of the two scales of the brief DUWAS version (1, 2): the working excessively (WE) scale, previously cited as a measure of workaholism (13).

In Italy there are few studies and publications on workaholism and its relationship with other organizational and personal variables, nor is there an Italian validation of the DUWAS or its brief version. The work of Kravina

and colleagues (14), who examined workaholism in an Italian organization, is an exception. The aims of their work were to confirm the presence of four worker profiles (15) and to explore the relationship between these different profiles and some variables related to workaholism.

Workaholism: definitions and measures

Working excessively is one of the central dimensions of workaholism, in the common definition. Workaholism is a concept increasingly popular and is often used as a synonym of work addiction, indicating an internal drive to work to the exclusion of all other potential sources of life satisfaction. Like any other addiction, it has dysfunctional implications for personal life, family, relationships and organizational functioning (11).

The term was originally used by Oates (16), who described it as “*the compulsion or the uncontrollable need to work incessantly*” (p. 11) and defined a workaholic as “*a person whose need for work has become so excessive that it creates noticeable disturbance or interference with his bodily health, personal happiness, and interpersonal relationship, and with his smooth social functioning*” (p. 4).

Workaholism appears to be a personal disposition that is activated and then maintained by a strong inner drive but also by external and concurrent factors, such as financial problems, a poor marriage, some aspects of the organizational culture, or a strong desire for career advancement (13).

An innate tendency to excessively allocate time and energies to work is not considered a sufficient criterion for workaholism, which is characterized also by an absence of economic necessity.

In current conceptualizations, two elements have emerged as core characteristics of workaholism: 1) working excessively hard, for longer than the situation requires, and 2) a strong, irresistible inner compulsion or drive to work (17, 18). Shimazu and Schaufeli (19), based on a conceptual analysis, described these two elements as a behavioral dimension (excessive work) and cognitive dimension (compulsive work).

Workaholics tend to allocate an exceptional amount of time to work (even at the cost of sacrificing time for other non-work activities), persistently think about work (even when they are not working), and work beyond what is reasonably expected to meet organizational or economic requirements (20). Therefore, workaholics are people who force themselves to work and cannot do without work, regardless of external demands. The working experience becomes a compulsion to such an extent that the pleasure of work disappears: this notwithstanding, the workaholic is unable to reorganize his work commitments.

Several measures of workaholism have been reported in academic and scientific literature. Some authors have measured workaholism as total weekly work hours (including overtime), while controlling the financial needs (e.g. 21), but this time investment measure addresses only the behavioral (work-related activities) component of workaholism and not the cognitive (work-related thoughts) one.

Some important measures of workaholism have been developed and reported, along with information of some of

each measure's properties: 1) the Workaholic Adjective Checklist (WAC) of Haymon (22); 2) the Workaholism Battery of Spence and Robbins (17); 3) the Work Addiction Risk Test (WART) of Robinson (23); 4) the Dutch Work Addiction Scale (DUWAS) of Schaufeli, Taris and Bakker (8).

The WAC (22) contains 72 items based on attitudinal and behavioral characteristics of the individual thought to be addicted to work. Spence and Robbins' 25-item scale (17) consists of three factors: excessive work involvement, drive to work and lack of work enjoyment. Work involvement refers to the extent to which individuals constructively use their time, both on and off the job; drive to work refers to the individuals' internal motivation to work; work enjoyment is the degree to which individuals derive pleasure from work.

The Robinson's WART (23) contains 25 items drawn from a list of symptoms and characteristics reported by clinicians who were involved in diagnosing workaholism. The recent work of Flower and Robinson (24) presented analyses of the factorial structure of the WART, specifying five underlying dimensions: 1) compulsive tendencies (concerning working hard and difficulties in relaxing after work); 2) control (dealing with annoyance when having to wait for something or someone); 3) impaired communications / self-absorption (regarding putting more energy into one's work than into relationships with others); 4) inability to delegate (referring to one's tendency to do things by oneself rather than asking for help) and 5) self-worth (concerning the degree to which one is interested in the final results of one's work rather than the work process itself).

Taris, Schaufeli and Verhoeven (13) used the WART scale by creating a Dutch version. Confirmatory factor analysis revealed that the factorial structure of the Dutch WART was similar to that of the original US version. Furthermore, they demonstrated that the Compulsive Tendencies (CT) subscale is adequately representative of workaholism. In one of their studies the overlap between the full 25-item WART and the CT subscale was high, while the patterns of correlations with other dimensions were very similar. This could be considered an important research finding, as use of the 8-item subscale can be more easily integrated into studies than the full 25-item WART.

The CT subscale (13) and Workaholism Battery (17) have been used by Schaufeli, Taris and Bakker (8) to operationalize the workaholism in the Dutch Work Addiction Scale (DUWAS). The DUWAS consists of 17 items divided into two scales, namely Working Excessively (9 items, from the CT subscale) and Working Compulsively (8 items, from the Workaholism Battery). They relabeled the CT subscale the Working Excessively (WE) scale because most of its items refer to working hard, without reference to the underlying motivation.

Recently, some authors (1, 2) validated a brief self-report DUWAS, composed of two scales: Working Excessively (5 items) and Working Compulsively (5 items).

Objectives

In order to validate the Italian version of the Working Excessively (WE) 5-item scale, the purposes of the current study are: 1) to test the factor structure and the internal va-

Table I. Working Excessively (WE) scale items

	Original items	Italian translations
1	I seem to be in a hurry and racing against the clock.	<i>Mi sembra di essere sempre di fretta, in corsa contro il tempo.</i>
2	I stay busy and keep many irons in the fire.	<i>Sono molto occupato e metto troppa carne al fuoco.</i>
3	I find myself doing two or three things at one time such as eating lunch and writing a memo, while talking on the phone.	<i>Mi ritrovo a fare due o tre cose contemporaneamente.</i>
4	I find myself continuing to work after my coworkers have called it quits.	<i>Continuo a lavorare anche quando gli altri mi dicono di smettere.</i>
5	I spend more time working than on socializing with friends, on hobbies, or on leisure activities.	<i>Trascorro più tempo lavorando che stando con gli amici o dedicandomi ai miei hobby.</i>

Likert frequency scale from 1 – Never to 4 – Always

Scala di risposta Likert da 1 – Mai a 4 – Sempre

validity of the scale; 2) to verify its capacity to distinguish among individuals; 3) to examine the patterns of the correlations between WE scale and other dimensions present in workaholism-related literature: perceived psychological strain (e.g. 25, 26, 27, 28, 29, 30, 17, 13, 14), work family conflict (e.g. 12, 31, 32, 17, 13, 14), total weekly work hours (e.g. 25, 30, 33, 34, 17, 13).

Method

Participants and procedure

The research involved a convenience sample of 853 employees and self-employees from different occupational sectors: 50% were from public and private service, 38% were from education and research, 8% were from industry and commerce and 3% were from public health (missing cases = 1%). The respondents filled-out a self-report questionnaire.

The sample consisted of 61% females and 39% males. 31% were under 34 years of age, 29% between the ages of 35 and 44, 25% between 45 and 54, and 13% over 55 years of age (missing cases = 2%). Half of the sample (50%) have children. 57% have a bachelor's or master's degree, the remaining 43% have a lower educational qualification. Weekly working hours were, on average, 38.97 (SD = 9.97; min = 0; max = 96).

Statistical analysis

Firstly, descriptive analysis of each item (M, SD, Asymmetry, Kurtosis, and Standard Error) was performed. Secondly, the psychometric characteristics of the 5-item WE scale were examined through an exploratory factor analysis with PASW 18 and then through a confirmatory factor analysis with Lisrel VIII (35). Goodness of fit for the model was evaluated using the χ^2 goodness-of-fit statistic. However, χ^2 is sensitive to sample size so that in a large sample the probability of rejecting a hypothesized model is very high (36). For that reason, further goodness-of-fit indices were computed: Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), and Root Mean Square Error of Approximation (RMSEA). According to Jöreskog & Sörbom (35) and Kelloway (37), cut-off values of .90 or higher for the CFI and NNFI and of .10 or less for the RMSEA are needed to conclude that a model provides a good fit for data. However, Marsh, Hau, and

Wen (38) caution that such guidelines should not be applied in an overly stringent way.

Moreover, as measures of the WE scale's Italian version reliability and internal consistency, Cronbach's alpha and the corrected item-total correlation coefficients were calculated. Also, the scores of the scale were submitted to analysis of variance (t-test for independent samples and univariate Anova, post-hoc LSD) based on some demographic variables (gender, professional sector) in order to evaluate the capability of the WE scale to discriminate between different groups. Finally, correlations between the WE scale and other constructs indicated in literature as potentially workaholism related (perceived health and work family conflict) were reported.

Measures

The 5 items of the WE scale were translated into Italian; subsequently, a bilingual translator performed a back translation that was compared with the original version of the items (39, 40). As in the original scale, the items were applied using a 4-point *never/always* scale.

The questionnaire, besides demographic characteristics and WE subscale, detected the following constructs:

- *Psychological strain* was assessed by 12 items from Bellantuono et al. (41) Italian version of the General Health Questionnaire (GHQ-12) of Goldberg & Williams (42). Items were measured with a 4-point *not at all/much more than usual* scale (e.g. "Have you recently lost much sleep over worry?"; Cronbach's Alpha in this study = .79);
- *Work-family conflict* was measured with 5 items from Colombo and Ghislieri's (43) Italian adaptation of Netemeyer, Boles, and McMurrian's (44) work-family conflict measure. Items were measured with a 6-point *never/always* scale (e.g. "My job produces strain that makes it difficult to fulfill family duties"; Cronbach's Alpha in this study = .89).

Moreover, total weekly work hours were measured.

Results

Descriptive statistics of single items

Descriptive statistics (Table II) show that items do not have a strictly normal distribution: all items have a little

Table II. Descriptive statistics of single items of WE scale

Items	Mean	Standard Deviation	Standard Error	Kurtosis	Skewness
1	3.13	.87	.03	-.20	-.74
2	2.70	.88	.03	-.73	-.14
3	3.15	.81	.03	-.14	-.68
4	2.47	.96	.03	-.95	.01
5	2.85	1.00	.03	-.94	-.40

negative skewness, only the item number 4 has a little positive skewness. All values of skewness are comprised in the range -1.0 to +1.0. Moreover, all items have a negative kurtosis index. Therefore, the items could be analyzed by normal theory estimators and not much distortion is to be expected (45).

Exploratory factor analysis and reliability

Exploratory factor analysis (ULS extraction) was conducted on the 5-item WE scale, considering the whole sample. The chosen factor solution resulted in one factor, according to the scree test (46). The solution explains 38.62% of the variance. The factor shows acceptable saturations corresponding to all items (Table III); all of these loadings surpass the conventional cut-off value of .40 (47).

Table III. Exploratory factor analysis solution (ULS extraction), 38.62% explained variance

Items	Working Excessively factor
2	.76
1	.75
3	.62
5	.49
4	.41

For reliability, the Cronbach's Alpha is .74. The Alpha-if-items-were-deleted values reveal that no item decreases the Alpha value. Correlations item-total scale ranged from $r = .63$ to $r = .76$.

Confirmatory factor analysis

Confirmatory factor analysis with Lisrel VIII (35) was conducted on the whole sample. In line with exploratory factor analysis results, the analysis with Lisrel VIII confirms the one-factor structure of the 5-item WE scale. Completely standardized factor loadings range from .38 to .84 (Figure 1). The model shows a covariance between items 4 and 5, which seem to be the two items that investigate workaholism behaviors in social interaction with other people. On the whole, fit indexes of the model, compared to those provided by Jöreskog & Sörbom (35) and Kelloway (37), are satisfactory: Chi-square = 11.39, with p-value = .02; Chi-square and df (4) ratio = 2.85; RMSEA = .05; NNFI = .99; CFI = 1.00. Chi-

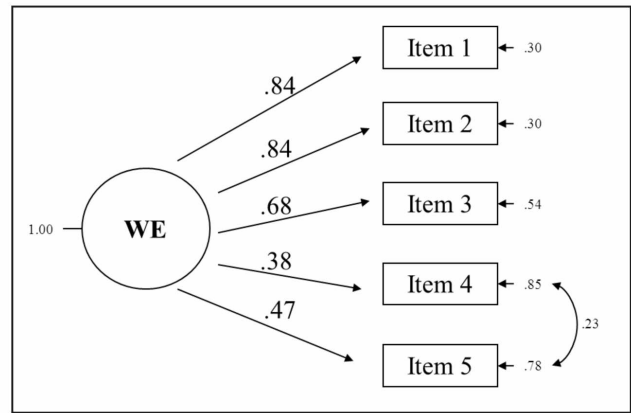


Figure 1. Path Diagram. Standardized Solution

square is significant but it must be noted that this value depends greatly on sample size (36).

Analysis of variance

The differences in WE were evaluated with the *t*-test for independent samples and ANOVA based on some demographic variables.

The results of *t*-test [$t(851) = 2.55, p < .05$] showed a significant difference in relation to gender: WE is greater for female ($M = 14.52; SD = 3.12$), compared to male ($M = 13.96; SD = 3.19$).

Analysis of variance in relation to professional sector revealed interesting differences: WE is greater [$F(3, 836) = 7.81, p < .001$] in people working in education and research ($M = 14.88; SD = 3.00$) than in people working in public and private service sector ($M = 13.81; SD = 3.16$).

Correlations

In order to test the validity of the WE scale's Italian version, correlations were made among WE and both psychological strain (GHQ) and work-family conflict (WFC). The results (Table IV) show a significant, strong and positive relationship between WE and WFC ($r = .49, p < .00$). The results also show a significant correlation with GHQ ($r = .19, p < .00$) and with total weekly work hours ($r = .16, p < .001$), even if these correlations are weak.

Table IV. Correlations (Pearson's r), means, standard deviations and reliabilities of all variables

	1.	2.	3.	4.
1. Working Excessively (WE)	-			
2. Psychological strain (GHQ)	.19**	-		
3. Work-family conflict (WFC)	.49**	.26**	-	
4. Total weekly work hours	.16**	.09*	.22**	-
Alpha	.74	.79	.89	-
M	14.30	24.25	15.03	38.97
SD	3.16	4.47	5.56	9.97

* = $p < 0.05$, ** = $p < 0.01$

Discussion

The WE scale, in its five-item Italian version, seems to be characterized by a clear unifactorial structure and by satisfactory reliability. The scale proves, moreover, sensitive to some differences: women show greater levels of WE. The tendency to work to excess is also greater in those professions characterized by less rigid working hours, deeper involvement and greater levels of discretionality, for example education and research, in which the boundaries between work and the rest of life are more permeable.

The correlations confirm the criterion validity of the WE scale. Consistent with the literature on the association of workaholism and poorer psychological well-being (e.g. 25, 26, 27, 28, 29, 30, 17, 13, 14), the results show a significant and positive relationship between WE and psychological strain but especially between WE and work-family conflict (e.g. 12, 31, 32, 17, 13, 14).

The correlation with weekly working hours shows, furthermore, that the number of working hours is associated with the tendency to work to excess, but cannot be an exhaustive measure of workaholism (e.g. 25, 30, 33, 34, 17, 13).

The results presented herein demonstrate, in short, the psychometric goodness of the WE scale. This scale, given its small size, may then be a useful instrument for research purposes, in studies in which one wishes to observe the relationship between the tendency to work to excess and other variables taken as possible determinants (aspects of personality, but also specific working conditions) or consequences (positive or negative outcomes), with particular reference to the studies on the subject of work-related stress. The use of this variable might prove particularly interesting in longitudinal and diary studies (48).

Further investigations could concern the verification: of the link between the tendency to work to excess and other measures of workaholism; of the reliability of the construct by means of a test-retest procedure; of the structural invariance of the scale and of its parameters with regard to different professions or on the basis of demographic variables (by multi-group analysis).

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