The Italian version of the Dutch Workaholism Scale (DUWAS): A study on a group of nurses

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ABSTRACT. In Italia sono molto pochi gli studi sulla dipendenza da lavoro in ambito infermieristico. Lo studio esplora l'incidenza del workaholism su un campione di 485 infermieri ospedalieri italiani e offre un contributo all'adattamento italiano della *Dutch Workaholism Scale* (*DUWAS*), mediante il modello di Rasch. Le dimensioni Working Excessively e Working Compulsively, costitutive della scala DUWAS, presentano una bassa consistenza interna, hanno diversi punti di contatto e appaiono relate fra loro. Circa il 18% degli infermieri intervistati è workaholic, il 29% circa è a rischio.

SUMMARY. Introduction: The risk for nurses to be exposed to workaholism is widely demonstrated in the relevant international literature; however, this does not seem to be paid sufficient study and analysis in Italy. The Italian adaptation of the Dutch Workaholism Scale (DUWAS) comprises the working excessively (WE) and working compulsively (WC) scales. Method: A group of 485 Italian nurses, balanced in terms of gender and seniority, compiled the DUWAS questionnaire. The Rasch model was used to analyse the retrieved data, which helped to identify nurses at risk of workaholism. Results: The WE and WC scales within the DUWAS show low internal consistency, some points of contact, and appear to relate to each other. About 18% of the group of subjects shows a workaholic profile, and approximately 29% are at risk of becoming workaholic. Conclusions: This study contributes to improve the validation of the Italian version of the DUWAS, and helps to assess workaholism in nursing, a crucial healthcare profession.

Keywords: *Workaholism, Nursing, Scale adaptation*

INTRODUCTION

Workaholism

In the last few decades, the scientific literature related to work addiction has increased significantly (Clark, Michel, Zhdanova, Pui & Baltes, 2014; Van Beek, Hu, Schaufeli, Taris & Schreurs, 2012). Workaholism as a term was first introduced by Oates in the 1970s to describe a constant need to work. Workaholism is closely intertwined with the social, cultural and economic changes developed in the last few decades. Also the meaning that individuals and society have attached to work has changed, along with the time devoted to it and the range of workplaces and working methods involved.

Several definitions of work addiction exist: therefore, models and taxonomies to describe workaholics are many and varied as well. They stem from different (quantitative and qualitative) screening methodologies, as well as from the type of setting under scrutiny (for example, clinical or non-clinical contexts). Furthermore, some models are supported by empirical data, while others are mainly based on solid theoretical grounds or narrative data (see Robinson, 1989).

More recently, some researchers have attempted to integrate different approaches to the study of workaholism (Clark et al., 2014), so as to identify its main features. Schaufeli, Taris and Bakker (2008) define workaholism as the tendency to work excessively and compulsively. This definition clearly describes the central features of workaholism, including working excessively hard (which relates to the individual's behaviour) and being obsessed with work (which relates to the individual's cognitive sphere). Workaholism is diagnosed when both traits can be significantly detected in a person (Schaufeli, Shimazu & Taris, 2009).

Workaholism and nursing

As anticipated, some relevant literature reports that nursing is one among the professions at risk of work addiction (Quinones & Griffiths, 2015). A study conducted by Burke, Matthiesen, and Pallesen (2006) used an *ad hoc* measuring scale to study a sample of 496 Norwegian nurses, focusing on workaholism. They demonstrated that workaholism may affect well-being at work, when associated with specific personality traits and certain work features. They also showed that a strong drive to work (one of the determining factors linked to workaholism) can lead to a lower level of work satisfaction. Kubota et al. (2010) carried out a study on 312 Japanese hospital nurses; they focused on the relationship between workaholism and a series of sleep disorders reported on a checklist. They found that nurses with the highest scores for workaholism (according to the model described by Schaufeli et al., 2008, 2009) not only tended to work excessively and compulsively, but they were also reported having trouble sleeping, feeling tired at work, and having difficulties to wake up, as well as showing signs of fatigue in the morning.

Subsequently, Van Beek et al. (2012) conducted a study on a sample of Chinese healthcare professionals (n = 760), the vast majority of whom were nurses (n = 544). They were seeking to enhance the understanding of the relationship between the motivational factors postulated by Deci and Ryan's Self-Determination Theory (SDT) and the resulting outcomes in terms of well-being/unease at work, including workaholism. Deci and Ryan proposed a major distinction between intrinsic and extrinsic motivation. Among the many studies on nursing and work addiction, Van Beek et al. (2012) demonstrated that workaholism is positively associated with high levels of introjected regulation (a dimension of the extrinsic motivation), which implies the adoption of external standards of self-esteem and social acceptance without necessarily identifying with such standards. Moreover, workaholism is negatively affected by intrinsic motivation.

Given that workaholism is such a significant and potentially pervasive phenomenon in a demanding field such as nursing is – which implies high levels of responsibility and workload, in both quantitative and qualitative terms – it is surprising that empirical research has scarcely focused on studying work addiction among nurses in Italy. There are, however, some relevant exceptions. For example, Falvo, Visintin, Capozza, Falco and De Carlo (2013) conducted a study on a sample of 215 hospital nurses to evaluate potential correlations of locomotion (the tendency of individuals to move rapidly, and to find the easiest way to reach their goals), a proactive personality (the tendency of individuals to strive to reach a high-level performance, and its subsequent outcome), self-efficacy (individuals believe that their proactive engagement can lead them to obtain the expected result) and workaholism. This study has found a positive correlation between workaholism

and locomotion among nurses. Conversely, a negative correlation between workaholism and proactivity could be detected. Interestingly, self-efficacy did not seem to influence work addiction.

Measuring workaholism

Drawing on their theoretical model, Schaufeli et al. (2008, 2009) developed a scale to measure workaholism: the *Dutch Workaholism Scale* (*DUWAS*). This instrument was further revised, and the scale translated into many languages, allowing researchers to measure workaholism by means of two scales: working excessively and working compulsively.

In Italy, some scholars proposed open-ended (Kravina, Falco, Girardi & De Carlo, 2010) or partial (Molino, Ghislieri & Colombo, 2012) versions of the DUWAS. More recently, Balducci, Avanzi, Consiglio, Fraccaroli, and Schaufeli (2015) created a validated version for the Italian context, which was also used for this study and shall be described in more detail below.

Aims

According to its premise, this study has a double aim. First, and most importantly, to contribute to validate the Italian version of the DUWAS scale. Second, due to the scarce amount of research on work addiction in the Italian nursing environment, this study aims at exploring and measuring the presence of workaholism on a group of Italian nurses. The data will be significantly compared with data available within previous studies on workaholism.

METHOD

Participants

This research was carried out on a group of 485 Italian nurses, working in five hospitals in Sardinia. They all took part in this study on a voluntary basis. 70.6% of the nurses were women, while 29.4% were men (these percentages also mirror the overall gender distribution within this profession). Their work experience ranged from 0-10 years (24.8%), to 11-20 years (36.3%), to 21 years and over (38.8%).

Measurement instruments

The adapted version of the DUWAS used for this research was created by Balducci et al. (2015), and it is in line with the other versions that have been created in other languages. It comprises 10 items on a 4-point scale ranging from 1 = (Almost) never to 4 = (Almost) always; the questionnaire is divided into two 5-item scales: working excessively (WE) and working compulsively (WC). After consulting an experienced English native speaker, we decided to modify slightly the Italian translation of some items to ensure a more natural fluency. However, the original meaning of these items remains unaltered. Table 1 shows the items in both scales in English and Italian.

The results obtained during this study are consistent with the theoretical assumptions informing it. In other words, individuals scoring high on both WE and WC are considered *workaholics*. Conversely, a combination of high WE and low WC identifies *hard workers* whereas a combination of low WE and high WC characterizes *compulsive workers*. Finally, individuals who are low on both WE and WC are *relaxed workers* (Schaufeli et al., 2008, 2009).

In general, the Italian version of the DUWAS shows good internal consistency (Cronbach's alpha = .82), while the internal consistency within the scales WE and WC is adequate (.74 in both cases, see Balducci et al., 2015).

Procedure

The data were collected inside the hospitals where the nurses worked, while they were on duty. Some participants completed the questionnaire in the researcher's presence. In other cases, the researcher explained to the nurses how to complete the questionnaires, and collected them at a later stage.

The consent to carry out this survey had been previously granted by the hospital executives. No further permission was deemed necessary to be obtained from their Ethics Committee, as no sensitive topic was dealt within this project. The project was carried out via self-evaluation procedures, ensuring all participants anonymity and privacy.

A total of 546 questionnaires were distributed and 487 were returned (amounting to an 89.19% redemption score). Questionnaires returned with missing data were discarded, if more than 4 questions had been left unanswered. Missing data partly completed – but still acceptable –were replaced via the *k*-Nearest Neighbour method.

Table 1 – DUWAS items in English and Italian

DUWAS - English version	DUWAS- Italian version
Item Working Excessively	
1 - I seem to be in a hurry and racing against the clock	1 - Mi sembra di essere di fretta e in corsa contro il tempo
2 - I find myself continuing to work after my co-workers have called it quits	2 - Continuo a lavorare dopo che i miei colleghi hanno smesso
3 - I stay busy and keep many irons in the fire	3 - Mi tengo impegnato e 'metto molta carne sul fuoco'
4 - I spend more time working than on socializing with friends, on hobbies, or on leisure activities	4 - Dedico più tempo al lavoro che a socializzare con gli amici, ad hobby o ad altre attività del tempo libero
5 - I find myself doing two or three things at one time such as eating lunch and writing a memo, while talking on the telephone	5 - Mi ritrovo a fare due o tre cose contemporaneamente, come pranzare, scrivere un promemoria e parlare al telefono
Item Working Compulsively	
1 - It's important to me to work hard even when I don't enjoy what I'm doing	1 - È importante per me lavorare intensamente anche quando quello che faccio non mi piace
2 - I feel that there's something inside me that drives me to work hard	2 - Sento che c'è qualcosa dentro di me che mi spinge a lavorare duro
3 - I feel obliged to work hard, even when it's not enjoyable	3 - Mi sento in dovere di lavorare intensamente, anche quando non è piacevole
4 - I feel guilty when I take time off work	4 - Mi sento colpevole quando mi prendo del tempo libero dal lavoro
5 - It is hard for me to relax when I'm not working	5 - È difficile per me rilassarmi quando non lavoro

The percentages of the missing data are shown in Table 2. The highest scores regarding missing data refer to WE3 (2.87%). As for all the other items, the amount of missing data appears to be sufficiently low (1.6%). 485 nurses actually answered the questionnaire.

Data analysis

As a first step, descriptive statistics on the correlation between the ten items of the scale are provided. The internal consistency of each scale was assessed by inspecting the item-total correlation by using the polyserial index (the total score was calculated without taking into account the item under analysis).

The main analyses were performed by using the Rasch model (Rasch, 1960), referring to its polytomous formulation called *Partial Credit Model* (Wright & Masters, 1982). The Rasch model can be used to evaluate the properties of a unidimensional psychometric instrument with ordinal response scale. The Rasch approach assumes that the probability of scoring a positive outcome depends on two components: the "ability" of a person and the "difficulty" of an item. The Rasch approach aims at placing individual abilities and the item difficulties into the same logit scale, thus testing the calibration of the instrument.

The two DUWAS scales were studied separately. The reliability of each scale was evaluated using the separation index G for persons (G_P) and items (G_I), and the person separation reliability R, which corresponds to Cronbach's alpha.

The G index is based on the assumption that, in order to be reliable, any measurement should consider a highly variable number of individuals' abilities and several levels of item difficulty. Hence, these indicators should provide sufficiently high values. Linacre (2012) suggests that the G_P index should be at least 2 and the G_I at least 3. When G_P is low, the instrument may not be sensitive enough to distinguish between individuals with high and low abilities. Conversely, when G_I is low, either the variance of item difficulties may be too small, or the group of subjects may not be large enough.

Table 2 – Item scores according to the WE and WC scales (n = 485)

Item	% of missings	Item-total correlation	Mean score	Location	Infit MSQ	Outfit MSQ
WE1	.82	.23	2.31	.10	.94	.95
WE2	.82	.39	2.19	.29	.77	.75
WE3	2.87	.28	2.01	.51	.89	.87
WE4	1.03	.24	2.44	.00	.92	.93
WE5	1.44	.37	2.13	.40	.79	.78
WC1	1.23	.48	2.55	.03	.72	.73
WC2	1.64	.44	1.84	.98	.81	.77
WC3	1.64	.46	2.46	.10	.75	.74
WC4	1.23	.16	2.64	.01	1.11	1.17
WC5	2.67	.31	2.36	.31	.92	.93

Note. For each item is reported: the percentage of missing values, the item-total correlation, the mean observed score, the Rasch location (mean of thresholds), Infit and Outfit MSQ.

Item properties were evaluated using the Infit (information-weighted fit) and the Outfit (outlier-sensitive fit) (Linacre, 2012). Both indices are calculated starting with the mean square of standardized residuals for items (MSQ), but the Outfit is more sensitive to outliers than the Infit. Good values ranged between .6 and 1.4; lower values indicate overfit (redundancy in the set of items) and higher values indicate underfit (unexplained variance).

The actual unidimensionality of each scale was assessed by inspecting the results of the Parallel Analysis on the residuals, using the method of the principal components. The unidimensionality is confirmed when the eigenvalues of the principal components calculated on residuals are lower than the 95° percentile of eigenvalues calculated on 1000 matrices of random permutated residuals. Furthermore, Linacre (2012) suggests that the eigenvalue of the strongest component must be less than 2 (i.e., a strength of less than two items).

Analyses were performed in the R environment, using the package eRm 0.15-6 for the Rasch analysis.

The test χ^2 was used to compare the profiling of the group of subjects selected for this study with previous research conducted with the DUWAS scale in healthcare and nursing contexts (Schaufeli et al., 2008, 2009). The one-sample *t* test was used, with Cohen's *d* index to evaluate effect size, to compare the average score of our nurses with the widest Italian sample available in literature – though not actually pertaining to healthcare (Balducci et al., 2015).

RESULTS

Validating the instrument

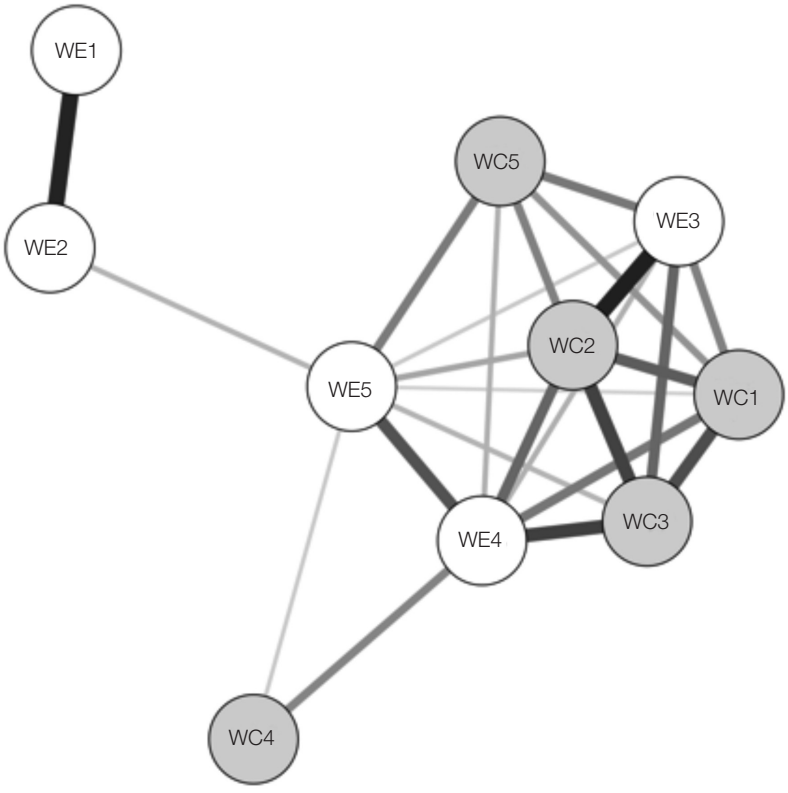
The relationships between the DUWAS items were descriptively analysed using the polychoric correlation (Table 3). The positive correlations among items vary from a minimum of .003 to a maximum of .529, whereas the negative correlations vary from a minimum of –.003 to a maximum of –.111.

In Figure 1, the items are represented as a sort of web. Each knot represents an item and the colour of each circle

Table 3 – Polychoric item correlation matrix (n = 485)

	WE1	WE2	WE3	WE4	WE5	WC1	WC2	WC3	WC4	WC5
WE1	1.000									
WE2	.523	1.000								
WE3	.139	.161	1.000							
WE4	−.085	.078	.245	1.000						
WE5	.074	.242	.211	.413	1.000					
WC1	−.018	−.003	.325	.345	.200	1.000				
WC2	.090	.117	.529	.376	.261	.391	1.000			
WC3	.029	.011	.376	.451	.242	.423	.450	1.000		
WC4	−.052	.101	−.111	.318	.208	.185	.031	.197	1.000	
WC5	.003	.190	.336	.242	.330	.292	.320	.201	.090	1.000

Figure 1 – Items web



Note. The white knots refer to the items on the WE scale whereas the grey knots refer to the items on the WC scale. Two items are linked by means of a segment if their correlation is equal or above .2; the segment thickness is proportional to the correlation level (maximum correlation: .53).

depends on which scale it belongs to (white refers to the WE scale while grey refers to the WC scale). Two items are connected if their correlation is at least .2. The thicker the segment connecting two items, the higher their correlation. The items in the WC scale appear to be more interconnected with one another, thus assuming a more central position in the web. In particular, item WC2 seems to be mostly connected to all other items, be they part of the WC or the WE scale. Conversely, WC4 seems to be marginal and appears to have little connection to the other items. Item WE3 appears to be more connected to the items in the WC scale than to those in the WE scale. Finally, WE1 and WE2 seem to be isolated elements, despite being interconnected with one another. In general, they are also quite unconnected with all other items.

All the items in the WE scale display low correlations to the overall score, with values around .3. Conversely, the items in the WC scale display slightly higher values, around .4, although WC4 showed a correlation to the overall score that appears to be extremely low (.16).

The analysis carried out by means of the Rasch model confirms the lack of consistency of the scale itself, as it is also shown by the low values regarding the person separation reliability R, which scored .49 in the WE scale and .56 in the WC scale. The G_P separation indexes are both extremely low, i.e. .97 in the WE scale and 1.14 in the WC scale. Conversely, the G_I separation indexes provided more encouraging results, i.e. 5.35 in the WE scale and 7.12 in the WC scale respectively.

Table 2 shows the fit indices for each item, while figures 2 and 3 show the person-item maps for each scale. The obtained values seem to be satisfactorily within the optimal range. Most items display a location mean value that is close to zero, thus indicating that the average difficulty of the items corresponds to the average abilities of the informants under scrutiny. Item WC2 seems to be the more difficult one, with a location value equal to .98 and the second and third thresholds above 1 (Figure 3).

Figures 2 and 3 show the person-item map for both scales, comparing the distribution of people's abilities and item difficulties. Low scores represent a low presence of the latent trait (i.e. non-workaholic individuals) and high scores represent high presence of the latent trait (i.e. workaholic individuals). The items scoring higher are those that provide more significant data as they emerge from the answers provided by individuals with a marked latent trait. Each dot represents the threshold for each item; since there are four categories of answers, there are three cut-off points. All items seem to cover all the informants' abilities. WE3 and WC2 appear to be the most difficult items since all three cut-off points are on the positive end of the scale.

The parallel analysis of the residuals shows that the WE scale has two significant components. However, the eigenvalues (1.89 and 1.31) are below the cut-off point, which was set at 2, thus making them negligible. The WC scale revealed three significant components but again the eigenvalues were low (1.49, 1.34, 1.17).

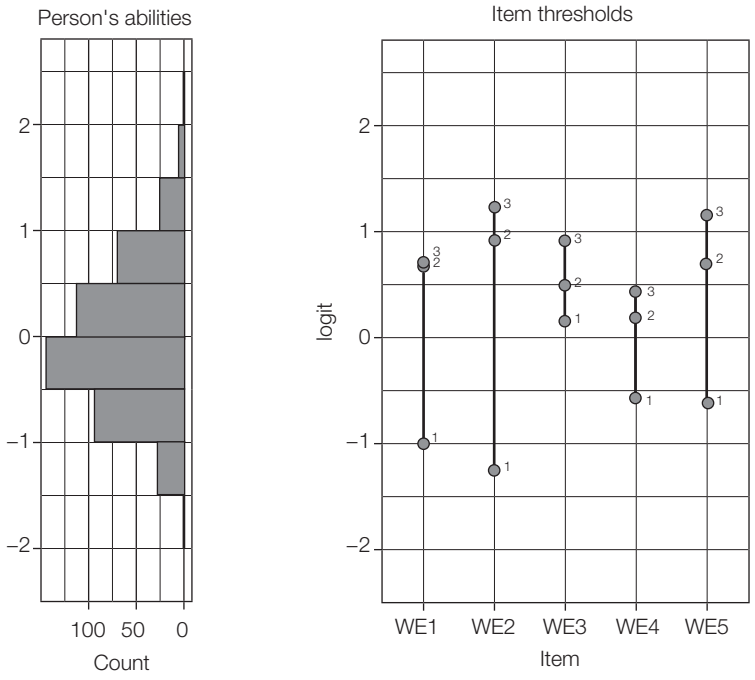
Group of subjects assessment

To date, a completely validated and standardised measuring scale of the Italian version of the DUWAS is not available. Hence, the group of subjects was evaluated by first categorising the results obtainable via its two dimensions, WE and WC respectively (through a xmedian split method, as suggested in Schaufeli et al., 2008, 2009). In order to categorize the participants, without a reference standard based on an Italian sample with the same features of our group of subjects, it was decided to calculate the mean of the answer to the items of each scale, and to divide participants accordingly whether the scored more or less than 2.5 value. Codifying the four alternatives of the answer with a value ranging from 1 to 4, 2.5 represents the median of the instrument scale. Subsequently, all those individuals were detected who could be clearly subsumed under any of the four DUWAS conditions, as described above: workaholism (WE and WC scores above 2.5); hard worker (WE above 2.5 and WC below 2.5); compulsive worker (WE below 2.5 and WC above 2.5); relaxed worker (WE and WC below 2.5).

As shown in Table 4, we found that a significant percentage of the group of subjects (ca. 18%) can be described as being affected by workaholism. In addition, including hard workers and compulsively workers at risk of workaholism too, around 29% of our nurses falls within an overall category subjected to potential uneasiness at work.

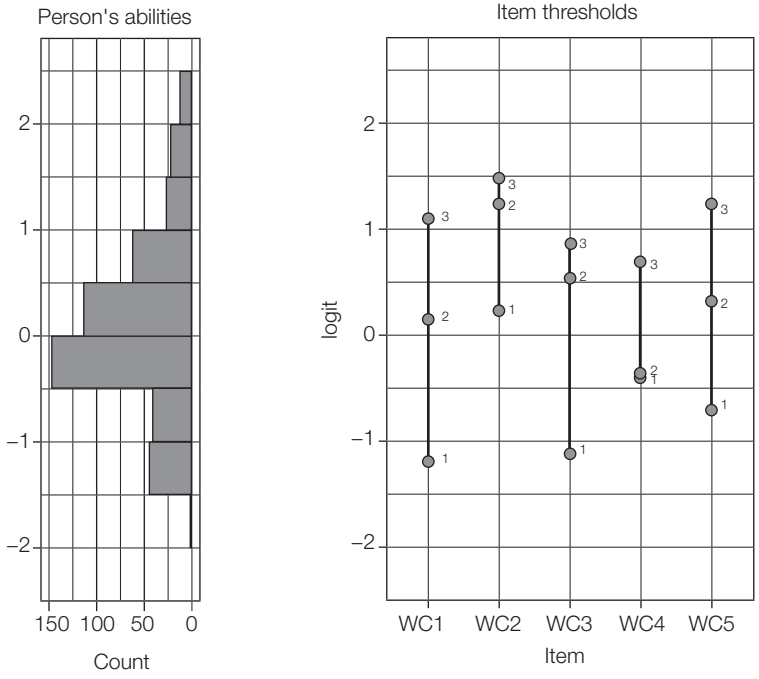
A comparison with previous studies in healthcare and nursing environments shows that there are no recent studies applying the DUWAS scale. Yet, on a descriptive level, the group of nurses involved in this study can be compared to other partially similar samples. As shown in Table 5, our group of subjects seems to relate on a higher well-being in the workplace, rather than the reference sample.

Figure 2 – Person-item map for the scale WE



Note. The panel on the left-hand side reports the histogram of person's abilities, while the panel on the right-hand side reports the values of item thresholds.

Figure 3 – Person-item map for the scale WC



Note. The left panel reports the histogram of person's abilities, while the right panel reports the values of item thresholds.

Table 4 – Measuring workaholism in the sample group (n = 485)

DUWAS Dimensions	Working Compulsively ≤ 2.5	Working Compulsively > 2.5
Working Excessively ≤ 2.5	259 (53.4%) *Relaxed Worker*	87 (17.9%) *Compulsive Worker*
Working Excessively > 2.5	52 (10.7%) *Hard Worker*	87 (17.9%) *Workaholic*

The group of subjects of this study shows indeed a lower rate of workaholic nurses, compared both to the study performed on medical residents by Schaufeli et al. (2008), and to the study performed by Schaufeli et al. (2009) on a sample made of nurses for around its 50%. Moreover, the rate of relaxed workers in our study amounts to half of our group of subjects, while it amounts to one third of the samples analysed by the other studies.

Table 6, instead, shows the results of the comparison of the means of WE and WC rates of our group of subjects with a larger Italian sample (Balducci et al., 2015).

The test conducted by this study highlights a significant difference, a big one for the WC rate, and a smaller one for the WE rate. For the first rate, the answers of our group of nurses are featured between the second and third step of the scale, on average, while the sample interviewed by Balducci et al. (2015) provided answers which on average locate on the second step. Therefore, we conclude that the nurses interviewed by our study suffers from slightly more problematic conditions inside the working environment.

DISCUSSION AND CONCLUSIONS

The study of the data reported so far has demonstrated that, to a certain extent, the WE and WC components are sufficiently interconnected. As for the WE scale, items WE3, WE4 and WE5 appear to be correlated with the items in the WC scale, while WE1 and WE2 could be lumped into a self-standing component. As for the WC scale, WC4 seems to be quite distant from the others, and captures an aspect of workaholism which bears little correlation with the other ones. Conversely, WC2 appears to be central to and prototypical of the latent trait and, at the same time, it is also the most discriminating item. Hence, it may indeed represent one central trait of workaholism.

Both scales appear to have little internal consistency; it is therefore not surprising that the G_P separation indexes provided extremely low results. Nonetheless, these findings are consistent with previous experiments based on scales having a limited number of items (Linacre, 2012). Since they include few measuring items, WE and WC must be able to capture two different and rather broad aspects of workaholism. For this reason, the analysis actually benefits from the fact that both scales can cover a wide range of differentiated aspects of the phenomenon under scrutiny. The parallel analysis suggests the possibility that additional components are not captured by the WE and WC scales. However, considering the limited number of items per scale, trying to break them down into further subcategories may not necessarily produce significant results. By contrast, adding new items that may define more prototypical WE and WC factors and discriminating features might improve the instrument and its effectiveness in measuring the latent trait.

As for the general conditions of the group of subjects, it can be confirmed that workaholism is a relevant issue in nursing. Around 18% nurses shows a drive to work excessively and compulsively. Two additional profiles at risk of workaholism could also be detected. A significant number of nurses tend to work extremely hard (about 18%) while some of them display a marked tendency to work compulsively (10%).

Moreover, despite the comparison with previous studies is indirect and descriptive for the reasons explained so far, our group of subjects displays better working conditions regarding workaholism than the other two healthcare-based samples; conditions which are worse, however, if compared to the general Italian sample currently available.

This study has some limitations. First, the group of subjects

Table 5 – Comparison of the profiles of our study with other research in health care

	Our study	Schaufeli et al. (2009)	Schaufeli et al. (2008)
Workaholics	17.9% (87)	31.9% (1031)	41.7% (827)
Relaxed workers	53.4% (259)	33.3% (1076)	31.9% (633)
Hard workers	17.9% (87)	16.8% (543)	14.4% (286)
Compulsive workers	10.7% (52)	18.1% (585)	12.0% (238)
Total n = 485		n = 3235	n = 1984
		$\chi^2(3) = 88.60$, $p<.001$	$\chi^2(3) = 112.95$, $p<.001$

Table 6 – Comparison with the study of Balducci et al. (2015)

Dimensions of DUWAS	**Working Compulsively**		**Working Excessively**	
Studies	**Our study**	**Balducci et al. (2015)**	**Our study**	**Balducci et al. (2015)**
Mean	2.37	2.01	2.22	2.34
Standard dev.	.58	.63	.55	.64
Sample size	485	1027	484	1027
Test t	$t(484) = 13.69$, $p<.001$		$t(484) = -4.90$, $p<.001$	
Effect size	Cohen's d = .59		Cohen's d = .20	

was selected *ad hoc* according to a specific profession; hence, the selection of the informants was not based on a systematic approach. Second, choosing nurses as case study resulted in an extremely homogeneous group, thus allowing us to have a firm control over possible professional, social and demographic factors. However, these factors do not allow the formulation of more general hypotheses regarding workaholism as experienced by a broader working population. Also, the application of a *cross-sectional* e *self-report* methodology to collect the data may have affected the measurement quality of the dimensions underlying workaholism. On the latter issue, Balducci, Avanzi and Fraccaroli (2016) suggest the combination of these measures with objective data of psycho-physiological. Finally, due to the fact that a standardised validating scale for the Italian version of the instrument is currently unavailable (and in particular a scale specifically designed for workaholism in nursing), an in-depth and detailed investigation could not be carried out.

Despite these limitations, the results obtained remain valuable. As regards the instrument, this study contributed to the further improvement and testing of the Italian version of DUWAS. It is therefore hoped that its proponents will create a validated version to assess the different types of job categories at risk of workaholism. As for nursing, this study shed some light on the incidence of workaholism, despite the scarcity of studies considering the incidence of regulatory, cultural, and organizational differences regarding workaholism internationally. Moreover, it has helped to detect those working profiles that are particularly at risk, considering the crucial role that nurses play in the healthcare system.

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