What does the Romanian workaholic look like? A first glimpse into the links between workaholism and employee characteristics; a validation attempt of DUWAS scale

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Abstract

The primary objective of this study was to explore the socio-economic and demographic characteristics of the Romanian employee, and see whether these traits might also favor workaholism. In order to do that, a validation of a workaholism assessment tool was necessary. For the purpose of the present study, DUWAS (Dutch Work Addiction Scale) was chosen, as it captures core concepts related to workaholism and is hence widely accepted as a suitable tool. Preliminary results show a suitable validation and a real potential for the use of DUWAS in future studies, in Romania. Moreover, the study also brings forth interesting findings related to the link between demographic and socio-economic employee characteristics and a predisposition to workaholism.

Keywords: workaholism, DUWAS, Romanian employee, demographic and socio-economic characteristics

Resumé

L’objectif principal de cette étude était d’examiner les caractéristiques socio-économiques et démographiques du salarié roumain, et voir si ces traits pourrait également favoriser l’addiction au travail. Pour ce faire, une validation d'un outil d'évaluation d’addiction au travail était nécessaire. Aux fins de la présente étude, DUWAS (Dutch Work Addiction Scale) a été choisi, car il surprend les concepts clé liés au drogue du travail et est donc largement accepté comme un outil acceptable. Les résultats préliminaires montrent une validation satisfaisante et un réel potentiel de l'utilisation de DUWAS dans les études prochaines, en Roumanie. Par ailleurs, l'étude relève aussi des résultats intéressants concernant les caractéristiques démographiques et socio-économique des employés, qui mettent ces hommes en danger de devenir drogués du travail.

Mots clés: addiction au travail, DUWAS, salarié roumain, caractéristiques démographiques et socio-économique

Rezumat

Principalul obiectiv al acestui studiu constă în investigarea caracteristicilor socio-economice și demografice ale angajaților români pentru a vedea dacă acestea pot influența apariția fenomenului de workaholism. Pentru a realiza acest lucru, a fost necesară validarea unui instrument de evaluare a workaholismului. DUWAS (Dutch Work Addiction Scale) este scala asupra căreia ne-am concentrat în acest studiu. Rezultatele preliminare sugerează o traducere și adaptare adecvată, ceea ce o recomandăm pentru viitoare studii în România. Mai mult decât atât, cercetarea de față explorează legăturile dintre statutul socio-economic și caracteristici demografice cu predispoziția spre workaholism.

Cuvinte cheie: workaholism, DUWAS, angajați români, caracteristici socio-economice și demografice

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Introduction

Over the years, important changes relating to the work environment have occurred. The emergence of multinational companies as well as of a vaster array of career opportunities, combined with the technological development, are just some of the defining traits of our modern society. These factors have also greatly contributed to the occurrence of workaholism all over the world, as well as in Romania.

Researchers’ interest towards workaholism has continually increased, especially in the western societies. It all started 41 years ago, when Wayne Oates coined the term workaholism and tried to define its meaning. Nevertheless, various studies have reached different, or even contradictory conclusions on this matter. In Romania, the term workaholism has mostly been propagated by the mass-media, being advertised as rather a trendy term than a proper scientific construct. This is all the most surprising considering the fact that no further than five years ago a young female manager died from what doctors diagnosed as overwork. Although her case drew great public attention, the Romanian researchers’ and occupational health specialists’ interest to the subject of workaholism and its assessment has remained extremely reduced, compared to their western counterparts.

To our knowledge, there has been no other attempt to either create or adapt a tool to measure workaholism in the Romanian work environment.

The present study brings several important contributions to the area of occupational health by: (a) adapting, for the first time on the Romanian population, an instrument designed to assess the risk of overworking; (b) identifying relevant demographic and socio-economic data (i.e. education, income, gender etc.) that might be associated with a higher risk for workaholism, as well as with workaholism-related traits (i.e. anxiety, mania, intolerance, obsessive-compulsiveness).

Workaholism: Definition and Conceptualization

Workaholism, as coined by Wayne Oates (1971) from the term alcoholism, was originally defined as a compulsive need to work without any interruption. The term and its meaning became so empirically relevant, that nowadays it is part of our routine vocabulary. An important aspect which made the term increasingly appealing to the public was the lack of separation between work and private life (Sorensen and Feldman, 2007). Although workaholism, as a scientific construct, has had a period of over 40 years of development, contradictions still exist regarding its meaning. One reason for this could reside in its nature, while another reason is more concerned with its health-related value. First of all, confusion regarding its nature comes from the existence of several different conceptualizations: as a personality trait, that shows stability over one’s life course; as a learned behavior, that tends to manifest itself in certain organizations or cultures; as a disorder, similar in manifestations and consequences to any other type of addiction. Second, it has been debated whether workaholism is a healthy habit. Older approaches argue that it is a positive phenomenon because it derives from the love of work (Cantarow, 1979; Machlowitz, 1980; Sprankle and Ebel , 1987). On the contrary, recent opinions on this subject tend to view workaholism as unhealthy, more likely belonging to the same category as other types of addictions. What is more, this last approach argues that workaholism leads to unhappiness, obsession, lack of performance at work and even difficulties with co-workers.

Conceptual differences

Working hard versus Workaholism

In spite of the conceptual differences, there is a consensus regarding the fact that workaholic persons spend most of their time working. However, researchers insist on clarifying the fact that having a work addiction is fundamentally different from simply working hard. There is nothing wrong with being passionate about one’s work, if one gets more involved when something needs to be done in a shorter period of time, or if one feels proud about one’s professional accomplishments.

Workaholics’ lives differ from these in that they feel a total lack of control; they are unable to slow down, not even in order to enjoy the results of their own work. Workaholism is mostly associated with an increased number of working hours. It is, however, much more than that. Workaholism is rather similar to an addiction, an obsessive-compulsive disorder, and is much more than working hard or working for many hours (Robinson, 2000). Their obsession with work occupies their entire time, which
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prevents them from maintaining a healthy social life, or a healthy lifestyle in general (Tuck, 2003).

It is somewhat understandable why it is difficult to differentiate between working hard and working too much, between being and not being addicted to work. That is because work is usually seen as a virtue. Those who do not work hard are generally disrespected by society. In contrast, diligent workers are praised or rewarded. Work recognition often plays the role of social and personal validation in an individual’s life.

Work engagement versus Workaholism

Dutch researchers (Schaufeli and Bakker, 2003) have generally agreed that workaholism can be either “good” or “bad”. Thus, in order to obtain a conceptual clarification, it has been suggested to replace the concept of “good” workaholism with that of engagement and the concept of “bad” workaholism with that of workaholism (Schaufeli and Bakker, 2003). Employees engaged in their activity work more intensely, are happy and absorbed in their tasks, and may seem a lot similar to the workaholics. However, in contrast to the latter, employees engaged in their activity work hard because they like it, or due to external factors such as financial rewards, career perspectives etc., and not because they are driven by an inner impulse they cannot resist (Bakker, Schaufeli, Leiter, and Taris, 2008).

Gorgievski and Bakker (2010) consider that both work engagement and workaholism refer to being passionate about work, the major difference between the two residing in the motivation that drives each of them. Thus, on one hand, there is the “harmonious passion”, when an individual is in control of the activities, and feels rewarded by his/her work. On the other hand, there is the “obsessive passion”, when an individual is controlled by his/her work and only thinks about avoiding guilt, frustration, and other negative emotions (Vallerand, 2008).

Workaholism – assessment challenges

Workaholism assessment comes no easier than its conceptualization. A first attempt in this respect was undergone by Spence and Robbins (1992), who created the Workaholism Battery (WorkBat). The basis for this instrument resides in three main characteristics of a workaholic: being heavily involved in work, motivated by an inner drive, and at the same time feeling reduced enjoyment for one’s work. Some conflicting view about the usefulness of the WorkBat still exist, although it is, at present, the most frequently used instrument of this sort. Several studies have reported that the work involvement subscale did not show appropriate psychometric properties. Another important critic was related to the enjoyment of work subscale, which some authors do not consider a core feature of workaholism.

Another workaholism assessment tool was developed by Robinson (1999), who closely observed a group of members from Workaholic Anonymous. He reached the conclusion that workaholism has the following characteristics: (1) Compulsive Tendencies, which refer to intense working and difficulties relaxing after work; (2) Lack of control, which refers to being unable to wait for something, or someone, or about being unable to tolerate not doing something in the desired way; (3) Impaired Communication/Self-Absorption, which could be explained as the tendency to rate work as more important than anything else, at the cost of social interactions; (4) Inability to Delegate, and (5) Self-Worth, when the individual considers the results of his/her work to be more interesting than work itself. Based on these observations, the Work Addiction Risk Test (WART) was developed. Nevertheless, critics argued that it tends to rely on type A behaviors, therefore referring to daily aspects of an individual’s life rather than to work-related characteristics (McMillan, O’Driscoll, Marsh and Brady, 2001).

From a theoretical perspective, workaholics are considered to spend a great deal of time on work-related activities, being also obsessed with their work. Based on these characteristics, the 20 item Dutch Workaholism Scale (DUWAS) was created by Taris and Schaufeli (2003). The DUWAS has two essential dimensions, namely, Working Excessively (WE) and Working Compulsively (WC). WE (items 3, 4, 6, 8, 11, 13, 14, 17, and 19) originated from WART and stands for the “Control Tendencies” factor, while WC (items 2, 5, 7, 9, 12, 15, and 18) originated from WorkBat and stands for the “Drive” factor. DUWAS also contains an Overwork (items 1, 10, 16, and 20) dimension, in order to determine the actual duration of one’s work. Four more items determine the length of time one spends...
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working. Data show that the DUWAS has good psychometric properties (Schaufeli, Taris, and Bakker, 2006; Schaufeli, Taris, and van Rhenen, 2008).

A fourth scale, the Work Attitudes and Behaviors Inventory (WABI), was elaborated by Senholzi (2008). The WABI includes five scales measuring: anxiety, obsessive-compulsiveness, mania, intolerance, and self-doubt. The anxiety scale comprises questions regarding a series of physical health-related items (i.e. exhaustion, headaches, mood swings, and forgetfulness). The obsessive-compulsiveness scale includes items pertaining to: amount of time spent working and thinking about work, and difficulty relaxing. The mania scale includes items regarding one’s organization skills, multitasking abilities, and time spent planning the future. The intolerance scale refers to perfectionism, intolerance of mistakes, and dissatisfaction with the work of others. The self-doubt scale contains items regarding negative self-attitudes and lack of time to complete tasks. The total number of items contained in the WABI amounts to 70, yet a shorter version, with 25 items, has also been used.

The DUWAS was the focus of the present study, and it was preferred over WART and WorkBat, for several reasons. First of all, the WART lacks items referring to the underlying motivation of working hard (Del Libano, Llorens, Salanova, and Schaufeli, 2010). Second, the WorkBat failed to contain the three factors considered to be central to workaholism: work involvement, work enjoyment and inner drive to work (Kanai, Wakabayashi, and Fling, 1996; McMillan, Brady, O’Driscoll, and Marsh, 2002). These characteristics are, above all, considered to be core components of the construct, as one definition presents workaholism as “a negative psychological state characterized by working excessively due essentially to an internal drive that cannot be resisted” (Salanova, Del Libano, Llorens, Schaufeli & Fidalgo, 2008, p. 1, apud Del Libano et al., 2010).

The present study had, thus, two major objectives. The first was to verify the psychometric properties of the DUWAS on the Romanian population. The second objective was to identify the relations between certain traits that might be associated with workaholism (Anxiety, Obsessive-Compulsiveness, Mania, Intolerance), a series of demographic characteristics (type of institution, income, gender, sex, marital status, education), and three workaholism components (i.e. WC, WE, and combined workaholics/CW – a cumulated dimension resulting from the summation of WC and WE).

Method

Participants

Sample 1

For the linguistic validation of the DUWAS, 34 volunteers were recruited. All of them were bilingual speakers. The sample comprised 15 males and 19 females, and had an age range between 21 and 45 years old.

Sample 2

For the construct validity, a total number of 137 participants voluntarily took part in the study. The questionnaires were completed via internet by 32 of them, while for 105 participants, printed questionnaires were used. Of all participants, 64 were males, and 72 were females. This sample was also asked to answer several questions regarding socio-economic and demographic aspects. Thus, 33.8 % reported working in the public sector, while 65.4 % reported working in the private sector. Further on, 2.9 % reported having only secondary school education, 25 % having graduated from high school, 53 % participants reported having graduated from university, and 32.4 % reported having post-university education. The income varied from 100 to more than 1000 Euros/month. Regarding their marital status, 60.3 % of the participants were married, 34.6 % have never been married, while 5.1 % reported being divorced. All the participants were middle-aged adults.

Measures

For the present study, the 20-item version of the DUWAS was applied. The responses are scored on a 4-point Likert scale, ranging from totally disagree to totally agree. For each of the subscales, the total score is calculated first by adding the scores on all the items from the respective subscale, and then by dividing the sum by the number of items contained in the subscale.

A 25-item version of the WABI was also administered. It contains only the first four factors (anxiety, obsessive-compulsiveness, mania, and intolerance), and was previously...
translated and adapted on the Romanian population by Cotărlă (2006). The items are scored on a 5-point Likert scale, ranging from Never true to Always true.

**Procedure**

In order to obtain a good linguistic validation of the DUWAS, the translation-back-translation procedure was used. The translation procedure followed the International Test Commission Guidelines (Van de Vijver & Hambleton, 1996; Hambleton, Merenda, and Spielberger, 2005). The scale items were translated from English into Romanian by two translators, after which another one translated the Romanian version back into English (retroversion). The English items obtained following the retroversion were compared to the original English items, as recommended by Brislin (1970). The equivalence of the translated version to the original measure was evaluated using the bilingual test retest method (Butcher and Gur, 1974). In order to do that, bilingual speakers were recruited. The English and Romanian versions of the DUWAS were applied, in this order, with a 10 days period in between. Before completing the measures, participants were informed about the confidentiality of the data. Participants completed both versions of the DUWAS anonymously, being asked to provide a code that would allow them to identify their responses. The entire procedure was completed online. Next, for the construct validation, both printed and electronic versions of the scales were used. What is more, another workaholism scale, the WABI, was also applied. The participants were also asked to provide a series of demographic data (i.e. type of institution, income, gender, sex, marital status, and education).

At first, steps were taken in order to verify the linguistic equivalence of the two versions. Afterwards, the psychometric properties of the Romanian version of the DUWAS were verified, as well as the temporal stability of the translated instrument. Further on, construct validity and reliability were verified. Eventually, with the help of the data collected with the WABI, traits related to workaholism (anxiety, obsessive-compulsiveness, mania, intolerance) were also accounted for, and later used in the analysis. In the end, three components of workaholism were taken into consideration: working compulsively, working excessively and combined workaholics.

**Results**

**Objective 1. Assessing the psychometric properties of the DUWAS**

In order to verify that the two linguistic versions of the DUWAS are equivalent, two approaches were chosen. On one hand, the difference between the two versions was assessed using a paired samples t-test, with the presumption that no significant difference will be found. On the other hand, by performing Spearman correlations, the presumption that the two linguistic versions would be strongly associated was tested.

To assess the stability of the translated DUWAS, a paired samples t-test was performed, on the English ($M = 47.44$, $SD = 8.81$) and Romanian ($M = 47.17$, $SD = 8.83$, $t = -2.58$, $p = .79$) scores. The results show no significant difference between the two linguistic forms, therefore the data support the equivalence between the Romanian translation and the original, English version (See Table 1).

<table>
<thead>
<tr>
<th>Scale</th>
<th>En version</th>
<th>Ro version</th>
<th>t- test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUWAS</td>
<td>Mean 47.44</td>
<td>Mean 47.17</td>
<td>SD 8.81</td>
<td>SD 8.83</td>
</tr>
</tbody>
</table>

The next step was to determine the temporal stability of the translated DUWAS by correlating the scores obtained from the administration of English and Romanian versions of the DUWAS. The Spearman product-moment correlation coefficient of these scores was highly significant, and confirms good test-retest reliability. The same was true for all item pairs correlations (See Table 2 & 3).
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Table 2 Test-Retest Reliability of the DUWAS

<table>
<thead>
<tr>
<th>DUWAS Ro</th>
<th>DUWAS En</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman Correlation</td>
<td>.69**</td>
</tr>
<tr>
<td>Sig.</td>
<td>.00</td>
</tr>
<tr>
<td>N</td>
<td>34</td>
</tr>
</tbody>
</table>

**p < .01

Table 3 Spearman Correlations per Item Pairs

<table>
<thead>
<tr>
<th>English – Romanian pair for item no.</th>
<th>Spearman Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.03 (p=.867)</td>
</tr>
<tr>
<td>2</td>
<td>.62**</td>
</tr>
<tr>
<td>3</td>
<td>.52**</td>
</tr>
<tr>
<td>4</td>
<td>.71**</td>
</tr>
<tr>
<td>5</td>
<td>.60**</td>
</tr>
<tr>
<td>6</td>
<td>.68**</td>
</tr>
<tr>
<td>7</td>
<td>.44**</td>
</tr>
<tr>
<td>8</td>
<td>.43**</td>
</tr>
<tr>
<td>9</td>
<td>.53**</td>
</tr>
<tr>
<td>10</td>
<td>.71**</td>
</tr>
<tr>
<td>11</td>
<td>.56**</td>
</tr>
<tr>
<td>12</td>
<td>.61**</td>
</tr>
<tr>
<td>13</td>
<td>.64**</td>
</tr>
<tr>
<td>14</td>
<td>.39*</td>
</tr>
<tr>
<td>15</td>
<td>.64**</td>
</tr>
<tr>
<td>16</td>
<td>.68**</td>
</tr>
<tr>
<td>17</td>
<td>.67**</td>
</tr>
<tr>
<td>18</td>
<td>.50**</td>
</tr>
<tr>
<td>19</td>
<td>.63**</td>
</tr>
<tr>
<td>20</td>
<td>.68**</td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01.

The internal consistency for the English and Romanian versions of the DUWAS was tested by calculating Cronbach’s Alpha. Both coefficients were quite high: α = .82 for the English version, and α = .85 for the Romanian version (see Table 4).

Table 4 Internal Consistency of the English and Romanian Versions of the DUWAS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUWAS English</td>
<td>.82</td>
</tr>
<tr>
<td>DUWAS Romanian</td>
<td>.85</td>
</tr>
</tbody>
</table>

In order to assess the convergent validity of the DUWAS, the relation between workaholism and the Overwork dimensions was explored. As shown by the Pearson correlations performed; WE showed a stronger correlation with OW (r = .53, p < .01), than did WC (r = .46, p < .01).

Table 5. Pearson Correlations between Working Excessively, Working Compulsively, Combined Workaholism, and Overwork

<table>
<thead>
<tr>
<th>WE</th>
<th>WC</th>
<th>CW</th>
<th>OW</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WC</td>
<td>.77**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CW</td>
<td>.96**</td>
<td>.91**</td>
<td></td>
</tr>
<tr>
<td>OW</td>
<td>.53**</td>
<td>.46**</td>
<td>.53**</td>
</tr>
</tbody>
</table>

** p < .01.
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Further on, correlations between the workaholism scores obtained from the two instruments were performed. There was a significant, considerable association between the two (\(r = .43, p < .01\)).

Objective 2: verifying the association between workaholism and demographic, and socio-economic data

Due to the exploratory nature of this objective, an increased number of analyses were performed. More precisely, the concept of workaholism, as measured with both the DUWAS and the WABI, was verified in the following associations. Due to the novelty that workaholism studies represent within the Romanian work space, the decision to fully scrutinize its relation to other demographic data was taken.

Three models were formulated in the present study. The three dependent variables, used separately in all the three models were: Working Compulsively Workaholics (WC), Working Excessively Workaholics (WE), and Combined Workaholics (CW; Working Compulsively and Working Excessively taken together). The independent variables used in all the three models were: type of institution (public sector versus private sector), monthly income, marital status, education, sex, anxiety, mania, intolerance, obsessive-compulsiveness.

A regression analysis was performed, in which workaholic behavioral patterns, namely CW, WC, and WE were regressed on nine predictors: type of institution (public sector versus private sector), monthly income, marital status, education, sex, anxiety, mania, intolerance, obsessive-compulsiveness.

Table 6 reveals that in the case of the dependent variables, the F-ratio is significant at \(p < .01\), and the value of the adjusted R-square explains .23 %, .25 %, and .17 % respectively of the total variance.

<table>
<thead>
<tr>
<th>Model workaholics</th>
<th>Combined Workaholics</th>
<th>Working Compulsively</th>
<th>Working Excessively</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Standardized Coefficients</td>
<td>t</td>
<td>Sig.</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.01 .31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of institution</td>
<td>.22 2.73 .00</td>
<td>.20 2.56 .01</td>
<td>.21 2.53 .01</td>
</tr>
<tr>
<td>Education</td>
<td>-.03 -.46 .64</td>
<td>-.12 -1.59 .11</td>
<td>.02 .32 .74</td>
</tr>
<tr>
<td>Sex</td>
<td>.03 .40 .69</td>
<td>.06 .75 .45</td>
<td>.01 .12 .90</td>
</tr>
<tr>
<td>Monthly Income</td>
<td>.14 1.68 .09</td>
<td>.16 2.05 .04</td>
<td>.10 1.25 .21</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-.04 -.60 .54</td>
<td>-.04 -.54 .58</td>
<td>-.04 -.57 .56</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.04 .41 .67</td>
<td>.06 .52 .60</td>
<td>.03 .30 .76</td>
</tr>
<tr>
<td>Mania</td>
<td>.37 3.02 .00</td>
<td>.45 3.67 .00</td>
<td>.29 2.25 .02</td>
</tr>
<tr>
<td>Intolerance</td>
<td>-.05 -.42 .67</td>
<td>-.08 -.63 .52</td>
<td>-.03 -.23 .81</td>
</tr>
<tr>
<td>Obsessive-Compulsiveness</td>
<td>.11 .86 .38</td>
<td>.07 .53 .59</td>
<td>.13 .98 .32</td>
</tr>
<tr>
<td>F Ratio</td>
<td>5.49***</td>
<td>6.12***</td>
<td>4.15***</td>
</tr>
<tr>
<td>R Square</td>
<td>.28 .30</td>
<td>.23 .23</td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>.23 .25</td>
<td>.17 .17</td>
<td></td>
</tr>
</tbody>
</table>

* \(p < .05\). ** \(p < .01\). *** \(p < .10\).
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Important predictions could be inferred from the resulting relations between the predictors and the criterions. Namely, the type of institution (private versus public sector) and mania show a significant predictive power for all criterions. Monthly income, on the other hand, only seemed to be predictive for WC.

Further on, the associations between workaholism and various socio-economic and demographic characteristics were explored. It can be noticed that the probability for someone to be a workaholic significantly increases for those employed in the private sector (see Chart 2). Moreover, after performing an independent samples t test, a significant difference was found between the two means \((t(133) = 3.216, \ p < .01)\), those working in the private sector being more likely workaholics \((M = 39.63, \ SD = 8.45)\) compared to those working in the public sector \((M = 33.57, \ SD = 11.25)\).

![Figure 1. The Association between Workaholism (DUWAS) and Type of Institution](image)

The relation between education and workaholism (as reflected by the responses on the DUWAS) was also assessed. A one-way ANOVA showed no significant difference between the four groups \((F = 1.27, \ p = .28)\), the means for each group being: (1) gymnasium \((M = 44)\); (2) high school \((M = 35.29)\); (3) university \((M = 38.26)\); (4) post-university \((M = 37.86)\). Further analysis, however, showed that the probability for someone to be a workaholic is inversely associated with the monthly income \((rho = -.17, \ p = .04)\).

Correlations between the two dimensions of the DUWAS (WE and WC), as well as the total score, and the demographic data (type of institution, monthly income, marital status, education, sex) as well as the dimensions of the WABI (Anxiety, Mania, Intolerance, Obsessive-Compulsiveness) were performed. WE was found to be positively correlated with all the dimensions of the WABI: Intolerance \((r = .31, \ p < .01)\), Mania \((r = .39, \ p < .01)\), Anxiety \((r = .32, \ p < .01)\), Obsessive-Compulsiveness \((r = .38, \ p < .01)\). At the same significance levels, the same was true for WC and: Intolerance \((r = .30)\), Mania \((r = .46)\), Anxiety \((r = .35)\), and Obsessive-Compulsiveness \((r = .38)\). Finally, the same was found for the total score of the DUWAS and: Intolerance \((r = .32)\), Mania \((r = .44)\), Anxiety \((r = .35)\), and Obsessive-Compulsiveness \((r = .40)\).
Table 7. Correlations between the two dimensions of the DUWAS (WE and WC), the total score, the demographic data (type of institution, monthly income, marital status, education, sex), and the dimensions of the WABI (anxiety, mania, intolerance, obsessive-compulsiveness)

<table>
<thead>
<tr>
<th></th>
<th>Marital status</th>
<th>Income</th>
<th>Sex</th>
<th>Education</th>
<th>Instit. Intolerance</th>
<th>Mania</th>
<th>Anxiety</th>
<th>Obsessive-Compulsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Excessively</td>
<td>Pearson</td>
<td>.04</td>
<td>.04</td>
<td>.06</td>
<td>.08</td>
<td>.26**</td>
<td>.31**</td>
<td>.39**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>136</td>
<td>136</td>
<td>136</td>
<td>135</td>
<td>135</td>
<td>136</td>
<td>136</td>
</tr>
<tr>
<td>Working Compulsively</td>
<td>Pearson</td>
<td>.05</td>
<td>.06</td>
<td>.10</td>
<td>-.03</td>
<td>.28**</td>
<td>.30**</td>
<td>.46**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>136</td>
<td>136</td>
<td>136</td>
<td>135</td>
<td>135</td>
<td>136</td>
<td>136</td>
</tr>
<tr>
<td>Workaholism (DUWAS)</td>
<td>Pearson</td>
<td>.05</td>
<td>.05</td>
<td>.08</td>
<td>.03</td>
<td>.29**</td>
<td>.32**</td>
<td>.44**</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>N</td>
<td>136</td>
<td>136</td>
<td>136</td>
<td>135</td>
<td>135</td>
<td>136</td>
<td>136</td>
</tr>
</tbody>
</table>

*p < .05. ** p < .01. ***p < .10.

In the end, nonparametric correlations between the demographic data and the dimensions of the WABI were performed (See Table 8). Results show significant associations between obsessive-compulsiveness and: marital status (rho = .17, p < .01), and type of institution (rho = .21, p < .01). Anxiety correlated significantly with sex (rho = .23, p < .05), while mania inversely correlated with monthly income (rho = -.20, p < .01). Other associations between the demographic data are shown in Table 8.

Table 8. Nonparametric correlations between the demographic data and the dimensions of the WABI (anxiety, mania, intolerance, obsessive-compulsiveness)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Marital status</th>
<th>Income</th>
<th>Sex</th>
<th>Education</th>
<th>Instit. Intolerance</th>
<th>Mania</th>
<th>Anxiety</th>
<th>Obsessive-compulsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>.21*</td>
<td>.07</td>
<td>.07</td>
<td>.19*</td>
<td>.15</td>
<td>.04</td>
<td>.10</td>
<td>.17*</td>
</tr>
<tr>
<td>Monthly income</td>
<td>-.04</td>
<td>.21*</td>
<td>.11</td>
<td>-.12</td>
<td>-.20*</td>
<td>-.06</td>
<td>-.14</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.02</td>
<td>.05</td>
<td>.15</td>
<td>.23**</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.03</td>
<td>.15</td>
<td>.10</td>
<td>.15</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of institution</td>
<td>-.08</td>
<td>.10</td>
<td>.11</td>
<td>.21*</td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intolerance</td>
<td>-.72**</td>
<td>.64**</td>
<td>.73**</td>
<td>.71**</td>
<td>.70**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mania</td>
<td>-.64**</td>
<td>.71**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>-.64**</td>
<td>.71**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obsessive-compulsiveness</td>
<td>-.64**</td>
<td>.71**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p < .05. * p < .01.

To further clarify the relations detailed in Table 8, a series of figures were produced.

Figure 2 shows that the probability that one is obsessively compulsive about one’s work increases if one is divorced. However, A Kruskal–Wallis test was conducted to evaluate this hypothesis. The results of the test were not significant, H(2) = 2.48, p = .288, with a mean rank of 64.25 for the married individuals, 78.57 for the divorced, and 74.41 for those who had never been married. One possible limit due to which an effect failed to be statistically visible might be the reduced number of divorced respondents (N = 7), compared to those who reported being married (N = 82), or never married (N = 47). Thus the means of obsessive-compulsiveness did not differ significantly among the three groups: (1) married (M = 21.59); (2) divorced (M = 23.43); (3) never married (M = 23.02). Therefore, we may conclude that only a tendency is observable that being divorced increases the probability of being...
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more obsessive-compulsive about one’s work.

Figure 3 shows the relation between obsessive-compulsiveness and the type of institution when one works. It can be observed that the probability of someone acting more obsessive-compulsive slightly increases for those who work in the private sector. More precisely, the people working in the private sector showed a significantly higher workaholism level ($M = 22.8, SD = 3.53$), than those working in the public sector ($M = 20.93, SD = 4.72$), $t(133) = 2.35$, $p = .02$.

Figure 2. The relation between obsessive-compulsiveness and marital status, where: 1 = married, 2 = divorced, 3 = never married

Figure 3. The relation between obsessive-compulsiveness and the type of institution
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Finally, Figure 4 shows the relation between anxiety and sex. As it can be observed, being female increases, although slightly, the probability of feeling anxious about one’s work. The independent samples t test shows that the mean anxiety level for the sampled women is 2.04 greater than for the sampled men (t (134) = 2.04, p < .01). The exact values are as follows: for women (M = 20.42, SD = 3.93), and for men (M = 18.38, SD = 4.44).

Discussion

The present study had two main objectives: (1) to assess the psychometric properties of the DUWAS, and (2) to verify the association between workaholism, related traits and socio-demographic and economic data. The first step was to translate and perform a linguistic validation of the DUWAS. Afterwards, the convergent validity was tested, with the help of a second workaholism questionnaire – the WABI. Finally, the relation between workaholism and various demographic and socio-economic data were analyzed. This final part of the study was somewhat more exploratory, considering the fact that this subject has not yet been investigated within the Romanian work space. It is for this purpose that it was decided in favor of a more extensive approach, for example to also perform correlations between the demographic and socio-economic data and workaholism, as measured not only with the DUWAS, but also with the WABI.

The linguistic equivalence between the Romanian and the English versions was verified using a paired-samples t-test. No significant difference between the two tests was found. What is more, significant correlations between the two language versions were found, both between the global scores, and between the item pairs. Moreover, the internal consistency of the Romanian DUWAS was very similar to the original.

So far, the DUWAS has been translated into several languages and its psychometric properties have been tested in Spain (Del Libano et al., 2010), Brazil and Japan (Schaufeli, Bakker, and Van Rhenen, 2009). The results showed that regardless of the sample used, all values of Cronbach’s alpha met the criterion of .70 (Nunnally and Bernstein, 1994), which is used as a rule of thumb and can be interpreted as having sufficient internal consistency. The only exception was the WC scale in the Japanese sample, whose value was slightly below the criterion (α = .68). All the aforementioned results
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support the fact that the Romanian version of the DUWAS met the prior standards and can be considered successful and was included in a subsequent construct validity procedure.

For this second purpose, another workaholism scale was used - the WABI. Significant correlations were found between the two sets of data, both between the final scores and between the individual components. These results are in accordance with previous studies (Schaufeli et al., 2008), and support the view that the more a person is a workaholic, the more time and effort will be invested in one’s work. Another important finding supporting a good validity of the Romanian version of the DUWAS is that WE, compared to WC, was more strongly correlated with OW. These results have previously been found on very large samples of over 7,500 Dutch and 3,311 Japanese employees (Schaufeli et al., 2009). All correlations between workaholism (WE and WC) and OW were positive and significant. WE was more strongly associated with OW than WC in both samples (r between .23 and .53, p < .001). Moreover, the same relation was also found in the present study, which shows that, on one hand, the Romanian version of the DUWAS can be trustfully used, and on the other hand, the relation between WE and OW is generalizable to the Romanian work environment.

Having, thus, successfully validated the Romanian version of the DUWAS, the relation between workaholism (as measured with both scales) and different socio-demographic and economic data was assessed. Both scales were equally used in this endeavor.

Those working in the private sector seemed more likely to be workaholics (according to the data collected with the DUWAS), compared to those working in the public sector. Although workaholics feel compelled to work unhealthily long hours because of internal pressures, some studies have shown that there are some variables that can foster or, on the contrary, prevent this form of maladaptation. For example, regarding the type of institution (i.e. either public or private sector), some claim that there is no relation to workaholism (Morgan, 1998), while many more argue that there are organizations which can precipitate or maintain the workaholic behaviors of their employees (Fassel, 1990; Porter, 1996; Schae and Fassel, 1988).

Data from this study also showed that the lower someone’s income, the higher the probability of being workaholic (as assessed with the WABI). This result supports some indications in the literature concerning the role of economic motivators for working. Money plays an important role in the life of most people (Lawler, 1971), and financial earnings are as important as ever (Haywood et al., 1989). Oates (1971) also stated that those who grew up in economically deprived environments, would be more likely to become workaholic adults. In fact, interviews with some of the workaholics’ children actually showed that they believed the reason for their parents’ workaholism was poverty. Regarding income, three main arguments have dominated the literature: workaholics either earn more, or less, or income is in no respect linked to workaholism. A study by Burke (2001b, apud. Schaufeli, 2008.) revealed no evidence to support the relation between income increases and either career satisfaction or workaholic behaviors. However, Scott, Moore, and Miceli (1997, apud. Harpaz and Snir, 2003) explicitly state that workaholics work beyond what is reasonably expected to meet basic economic needs. Income was found to be significant (p < .05) and negatively correlated with CW and WC workaholics (Sharma & Sharma, 2011). A Canadian General Social Survey found that 38% of the respondents, who also had an income of over $100,000 per year, described themselves as workaholics, compared to only 23% who made under $10,000 annually (Hamermesh and Slemrod, 2008).

In the present study, dimensions of the WABI also showed interesting associations with some demographic data, such as being divorced. Robinson and Post (1997) have also found that workaholics tend to have more dysfunctional families. Moreover, increased workaholism has been linked to increased problem coping difficulties, communication difficulties, decreased emotional involvement and dysfunctional couple dynamics. Even if having a work addiction seems to impact aspects of one’s life which are unrelated to work, there is no evidence to suggest that workaholism favors a higher divorce rate (Burke, 2000b). Things are even more complicated when considering a comparison between married and single individuals. Harpaz and Snir (2003), analyzing a three-way interaction of gender by marital status, found that married women worked fewer hours per week than unmarried women, while married
men worked more hours per week than unmarried men. Moreover, Doerrler and Kammer (1986) had previously shown that most single workaholics are women, while workaholic women tend to be more masculine.

In the present study, sex differences were also noticed with respect to being anxious about one’s work. Thus, being a female slightly increased the probability of being more anxious. The link between anxiety and workaholism is more complex, other studies showed anxiety while relaxing to be associated with workaholism (Morris & Charney 1983).

Closely related to the issue of clinical features within the workaholics’ spectrum of characteristics, earning less meant an increased probability of feeling a state of euphoric exaltation, hyperactivity and insomnia (the Mania dimension of the WABI). This seems to be in line with the view that workaholism can be conceptualized as an obsession (Fassel, 1990; Robinson, 1998; Chonko, 1983; Naughton, 1987; Clark, McEwen, Collard and Hickok, 1993), or as mania, referring to features such as experiencing an excessive fear of inactivity, feeling the urge to be energetic and overinvolved, also showing a great enthusiasm for life (Klaft și Kliener, 1988; Machlowitz, 1980).

Finally, regression analysis showed that the type of institution where subjects work (private versus public sector) show a significant predictive power for: Combined Workaholics (Working Compulsively and Working Excessively), Working Compulsively Workaholics, and Working Excessively Workaholics. Some studies showed that some organizations can foster workaholism (Fassel, 1990; Porter, 1996; Schaufel & Fassel, 1988); the employees become addicted to the corporation as a result of income and other benefits (Schaufel and Fassel, 1988). The rewards applied by some organizations encourage the idea that long, intense working hours, and the loyalty towards the organization are very important (Salancik, 1977).

Another predictor – mania, seem to support Trait-Specific Model, according to which workaholics show hippomanic (Klaft și Kliener, 1988; Machlowitz, 1980). As defined by the DSM-IV TR, hippomania refers to feeling increasingly well, while at the same time feeling no need to sleep, thinking rapidly about different things and also being very fast in various activities, all being related or included in one’s work (American Psychiatric Association, 2000). Monthly income, on the other hand, only seemed to be predictive for Working Compulsively.

The main limit of the current study refers to the characteristics and size of the sample, which require caution in generalizing these findings. However, on the whole, the results of the present study are in agreement with those obtained in other populations investigated (Schaufeli et al., 2009).

The present study brings important contributions to the field of occupational health, as eastern European participants were included in the research, thus confirming equivalence for the concept of workaholism, as proposed by Schaufeli and previously investigated in Western cultures and Japan.

In conclusion, the present study was the first successful attempt to validate a tool designed to assess workaholism, on the Romanian population – the DUWAS. Although Romanian occupational health professionals have so far showed only a limited interest in the subject of workaholism, hopefully, having a valid assessment tool will help increase their interest for this exciting subject.

References

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Anexă

Variația în română a scalei DUWAS


(Aproape) niciodată- 1 Uneori -2 Deseori- 3 (Aproape) întotdeauna - 4

1. Nu îmi place munca în exces.
2. Mi-aș dori să nu fiu atât de dedicat/ă muncii mele.
3. Par să fiu în grabă și contra cronometru.
4. Continuau să munesc chiar și după ce colegii mei au renunțat.
5. Este important pentru mine să munesc din greu, chiar și atunci când nu-mi place ceea ce fac.
7. Mă gândesc la muncă chiar și atunci când vreau să-mi iau, temporal, o pauză.
8. Mă implic în mai multe lucruri decât pot face.
9. Par să simt un impuls intern de a munci din greu, un sentiment că e ceva ce trebuie să fac, fie că vreau sau nu.
10. Merg la muncă și atunci când nu mă simt bine.
11. Tind să mă ţin sub presiune prin termene limitată auto-impuse când munesc.
12. Sint că este ceva în interiorul meu care mă face să munesc din greu.
13. Petrec mai mult timp muncind decât petrecând timp cu prietenii sau făcând activități preferate sau relaxante.
14. Mă simt vinovat/ă atunci când nu lucrez la ceva.
15. Mă simt obligat/ă să muncesc din greu, chiar și atunci când nu este plăcut.
16. Lucrez și în weekend-uri.
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17. Mă surprind făcând două sau trei lucruri deodată, cum ar fi să iau prânzul și să scriu un e-mail în timp ce vorbesc și la telefon.

18. Mă simt vinovat/a atunci când iau pauză de la lucru.

19. Îmi este greu să mă relaxez atunci când nu muncesc.

20. Îmi iau de lucru și acasă.

Ore de muncă

a. Câte ore lucrați pe săptămână în mod oficial? __________

b. Câte ore lucrați efectiv pe săptămână (incluzând munca peste program)? __________

b. Cât timp vă ia în mod obișnuit să ajungeți de acasă la locul de muncă și înapoi? * minute __________

c. Muncesc (vă rugăm indicați):
   c.1. program normal
   c.2. în ture
   c.2. în ture (dacă da):
      ○ doar ture de zi
      ○ doar ture de noapte
      ○ atât ture de zi, cât și de noapte