

RELIABILITY AND VALIDITY OF THE WORKAHOLISM BATTERY (Work-BAT): TURKISH FORM

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The aim of this study was to determine the reliability and validity of the Turkish version of the Workaholism Battery (Spence & Robbins, 1992). The original scale was translated into Turkish and then administered to 175 working graduates. Confirmatory factor analysis yielded a 2-factor solution with 9 items established in the first factor (WE) and 11 in the second (D). The reliability coefficient of the new shortened scale was .83 and the split-half reliability coefficient was .69. This scale has adequate criterion-related validity, with a positive correlation between the Jenkins Activity Survey - Type A Behavior subscale (Jenkins, Zyzanski, & Rosenman, 1979) and both WE and D. Congruence between the findings and the literature is discussed.

The notion of *workaholism* is often discussed in the business and popular press. Recently, this subject has become of increasing academic interest. Oates (1968) gave the first scientific definition of workaholism, as *an excessive and uncontrollable need to work that permanently disturbs health, happiness, and relationships*. The part of this definition emphasized most is the centralization of work as a behavior in a person's life. For example, Mosier (1983) defined workaholics simply as those who work at least 50 hours a week (see Harpaz & Snir, 2003). However, according to Mudrack and Naughton (2001, p. 94), employees who work hard and focus exclusively on tasks at hand during

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scheduled working hours would not necessarily be workaholics if they also “forgot about” work at other times. Actually, the label *workaholism* is commonly used to describe a socially atypical focus on work (McMillan, O’Driscoll, Marsh, & Brady, 2001).

However, today the fear that excessive working will result in costs for the individual and society has intensified. When workaholism is seen as an addiction just like alcoholism, an uncontrollable working drive could threaten the individual’s happiness and productivity in other areas of life (Seybold & Salomone, 1994). Thus, workaholism should involve increasingly harmful side effects for personal health and relationships (McMillan, O’Driscoll, & Brady, 2004). On the other hand, Burwell and Chen (2002) highlighted the fact that while society condemns alcoholism it finds workaholism quite acceptable. It may be true that today employers may actually look for workaholics in order to get longer hours without paying a greater salary. Indeed, the employee does not have the option of working less than required. Although workaholism is traditionally conceptualized as an intrapersonal phenomenon, it may also have an important interpersonal component (Mudrack & Naughton, 2001).

There may be certain organizational cultures in which long hours and sacrifices are widely believed to be required in order to achieve success and advancement (Harpaz & Snir, 2003, p. 294). Because advances in technology allow employees to stay in contact with the workplace (Porter, 2001), they may have difficulties creating a balance between their work lives and their daily private lives.

Certainly it is not sufficient to classify all individuals who have to work long hours due to the requirements of their jobs as workaholics. It is critically important to understand why workaholic individuals voluntarily spend so many hours on the job at the expense of their private lives. Finally, it can be argued that in order to understand workaholism it is important to take into consideration not only personal factors but also situational factors (Harpaz & Snir, 2003).

Many authors have defined workaholism as an addiction to work; therefore, there is an uncontrollable need to work incessantly. For example, Machlowitz (1980) stated that the workaholic loves to work and has a healthy and happy lifestyle (cited in Seybold & Salomone, 1994). According to her, the addiction stems not from the motivation to earn more money, but rather to earn what she referred to as “psychic income”, defined as “responsibility, meaning, opportunity, [and] recognition” (Seybold & Salomone, 1994, p. 6).

In contrast to that approach, other investigators (e.g., Cherrington, 1980) see workaholism as an irrational commitment to excessive work (see Harpaz & Snir, 2003, p. 293). These writers equate workaholism with other addictions and depict workaholics as unhappy, obsessive, tragic figures who are not performing their jobs well and who are creating difficulties for their coworkers (Burke & Koksal, 2002, p. 60). Moreover, workaholics may find working a way to escape from an

unhappy home life (Robinson, 2000). Consequently, workaholism may be a mechanism that releases people from solving problems, facing their emotions, and/or carrying out responsibilities concerning their family.

Some researchers have proposed different types of workaholic behavior patterns, each having potentially different antecedents and associations with performance, and work and life outcomes (Harpaz & Snir, 2003). For example, Naughton (1987) suggested that certain obsessive-compulsive individuals may simply be workaholics acting out their personality orientation through the work setting (see Seybold & Salomone, 1994, p. 6). Certainly "control of others" means getting involved in the work of others and this may be the critical factor determining workaholism. As workaholics like to have control they will rarely delegate work to others (Spence & Robbins, 1992). However, without cooperation and communication with colleagues, achieving success might be very difficult. These tendencies are similar to those of Type A behavior, which includes perfectionism and excessive control need. In particular, overinvolvement in work is very high in workaholics as well as in Type As (Burke, 2000; McMillan et al., 2001; Seybold & Salomone, 1994).

Spence and Robbins (1992) have pointed out that a workaholic exhibits three properties: in comparison with others, the workaholic is highly work involved, feels compelled or driven to work because of inner pressures, and has low enjoyment in his/her work. According to Spence and Robbins, these three properties are substantially independent of each other. Workaholics score high on work involvement (WI) and feelings of being compelled to work (D), and low on work enjoyment (WE). In contrast, work enthusiasts score high on WI and WE, and low on D. Enthusiastic workaholics score high on all three components.

Considerable efforts have been made to develop a workaholism scale. The oldest scale is the Work Addiction Risk Test (WART; Robinson, 1989), which consists of 25 items and is generally inclined to measure Type A behavior pattern. The Schedule for Nonadaptive Personality Workaholism Scale (SNAP-WORK) developed by Clark in 1993, is an 18-item forced-choice (true/false) instrument (cited in McMillan et al., 2001). The most widely utilized instrument in workaholism research is the Workaholism-Battery (Work-BAT, Spence & Robbins, 1992), a 25-item self-report questionnaire utilizing a 5-point response format.

The Spence and Robbins (1992) measurements were developed and validated using US samples of college students, social-work professionals, and MBA graduates (Burke & Koksal, 2002). The scale has also been used in Japan, Canada, Australia, Norway and New Zealand, but McMillan et al. (2001) have claimed that a degree of controversy exists over the factor structure of the Work-BAT because factor analysis has not replicated the WI factor structure.

McMillan et al. (2002), with a sample of 320 participants, did not find adequate support for the construct validity of the Work-BAT in its original format. They suggested eliminating the WI scale and shortening the WE and D scales. They also found weak correlations (.16 and .22) among WE and D and hours worked, which they interpreted as showing that workaholism is a distinct construct that cannot be explained merely in terms of "hours worked per week".

Burke and Koksal (2002), with a sample of Turkish managers and professionals, found that only one of the three measures of workaholism components had an acceptable level of internal consistency, namely work enjoyment ($\alpha = .79$). Thus, they suggested that a closer examination of particular items could be useful.

The present study examined the reliability and validity of the Work-BAT-Turkish Form. The main hypotheses in this study are as follows:

Hypothesis 1: Factor analysis would produce three distinct scales (WE, WI and D).

Hypothesis 2: WI, WE and D would correlate with the Jenkins Activity Survey-Type A Behavior subscale.

Hypothesis 3: WE, WI and D would relate moderately with hours worked per week.

METHOD

RESPONDENTS

The sample consisted of 175 adult volunteers who were graduates of 28 different universities in Turkey. They were employed full-time in a variety of industries. There were 99 females (57%) and 76 males (43%) and their mean age was 36. The career classifications and hours worked per week are shown in Tables 1 and 2, respectively. The questionnaires were distributed to the respondents by the author.

TABLE 1
CAREERS OF THE RESPONDENTS

Career	Number of subjects (%)
Health care	44 (25%)
Engineering	49 (28%)
Social science	36 (21%)
Academic work	22 (13%)
Other	22 (13%)
TOTAL	173 (100%)*

Note: * Two respondents did not answer this question.

TABLE 2
HOURS WORKED PER WEEK

Hours worked per week	Number of subjects (%)
Less than 25 hours	7 (4%)
26- 45 hours	121 (71%)
46-65 hours	38 (22%)
More than 65 hours	5 (3%)
TOTAL	171 (100%)*

Note: * Four respondents did not answer this question.

MEASURES

Spence and Robbins's (1992) Work-BAT - Turkish Form, and the Jenkins Activity Survey- Type A Behavior subscale were used to receive answers to the research questions.

Work-BAT-Turkish Form Work-BAT is a 25-item self-report questionnaire utilizing a 5-point response format. It was originally developed by Spence and Robbins (1992). They derived three workaholism components on the basis of an extensive literature review: work involvement (WI); feeling driven to work (D) and work enjoyment (WE). Workaholism types (workaholics, work enthusiasts, and enthusiastic workaholics) are determined on the basis of either high or low scores on these three scales. Work-BAT has adequate internal consistency ($\alpha=.67$ -.86, $p<.001$).

The present study used this scale, and WI had eight items, WE had ten and D had seven. The scale was developed by translation-backtranslation and evaluated in terms of suitability for the Turkish culture and comprehensiveness by five volunteer judges, who are lecturers in psychology. The final form of the scale was determined in accordance with their views.

Jenkins Activity Survey - Type A Behavior Subscale The Jenkins Activity Survey- Type A Behavior subscale (Jenkins, Zyzanski, & Rosenman, 1979) was also used. It has 21 items. This scale was adapted into Turkish by Ergene in 1991 (cited in İzci, 1998). The test-retest reliability coefficient was .70. For the validity of the scale, 64 cardiac patients and 64 healthy people with characteristics similar to those of the ill respondents were studied. The data showed that the cardiac group displayed a Type A behavior pattern more often than did the normal group (İzci, 1998).

RESULTS

For all analyses an alpha value of .05 was chosen. Validity and factor analyses were conducted with the Statistical Package for Social Sciences (SPSS) 9.0.

FACTOR STRUCTURE

As noted earlier, existing studies were unable to confirm the three-factor Work-BAT structure (i.e., McMillan et al., 2002) and proposed a two-factor model. In the present study, two main refractions were identified in the screen plot of eigenvalues as well. Thus, a confirmatory factor analysis was undertaken using an unweighted least squares function and promax rotation, restricted to a maximum of two factors and a minimum eigenvalue of 1.00. A cut-off point of .40 was chosen for the item loadings. Table 3 shows that nine items are established in the first factor and eleven items in the second. Factor loadings range between .42 and .71 in the first factor; and .45 and .65 in the second. These two factors explained 29.60% of the variance and communalities range between .34 and .58.

Considering the 9 items that comprise the first factor, the most suitable name for this factor is "Work Enjoyment". The second factor, with 11 items, can be named "Drivenness". The reliability coefficients of the two factors are .81 ($p < .05$) for all. However, 3 original WI items (items 21, 15, 24) were included in the second factor (D) and 1 original WI item (item 8) was included in the first factor (WE).

It is also noted that the 5 items excluded corresponded with the WI items in the original Work-BAT. Consequently, it is concluded that WI cannot be measured in the Turkish sample either.

Although Spence and Robbins (1992) have claimed that the three scales are separate, in the present study there were significant positive correlations between WE and D ($r = .47, p < .05$).

RELIABILITY ANALYSIS

After item selection it was observed that the D and WE scales were normally distributed. The reliability coefficient of the new shortened scale was calculated by Cronbach alpha to be .83. The split-half reliability coefficient is .69 ($p < .05$).

For the item analysis classical test theory and item-total correlations were used. With a cut-off point of .20, the correlations of only two items (item 11 and item 18) are below .20. This may stem from the way the questions were phrased in the Turkish questionnaire. Means of the items range between 1.90 and 3.61. Item-total correlations range between .11 and .62.

CRITERION-RELATED VALIDITY

Pearson correlation analysis showed that both WE and D demonstrate convergence with Type A behavior, $r = .22$ and $.24$ ($p < .05$) respectively, indicating that the Work-BAT- Turkish Form has adequate validity.

However, there are no significant correlations among hours worked per week and WE and D at the 5% level.

TABLE 3
RESULTS OF FACTOR ANALYSIS ACCORDING TO PROMAX ROTATION

Item number	Factor 1	Factor 2	Communality
2	.56	.22	.46
4	.71	.12	.54
7	.65	.00	.58
8	.42	.00	.34
9	.56	.25	.51
10	.71	.12	.53
11	.45	-.22	.42
17	.63	.44	.52
19	.42	.40	.43
3	.18	.47	.41
14	.00	.45	.40
15	.12	.47	.37
16	.29	.48	.41
18	.00	.47	.36
20	.37	.57	.52
21	.00	.52	.37
22	.42	.59	.45
23	.48	.55	.44
24	.37	.56	.43
25	.36	.65	.46
1	-.31	-.20	.28
5	.00	.37	.29
6	.00	.00	.22
12	.00	.38	.34
13	.19	.29	.29
Eigenvalue	4.88	2.52	
% of variance	19.53	10.07	
Cumulative %	19.53	29.60	

DISCUSSION

While Spence and Robbins (1992) seemed to regard WI as the core indicator of workaholism, in the present study factor analysis yielded a two-factor model of workaholism, which is consistent with results from previous research (e.g. McMillan et al., 2002). This may be due to the fact that workaholism is a behavioral pattern, but WI reflects an attitude (Scott, Moore, & Micelli, 1997). The data showed that the Work-BAT-Turkish Form consists of 20 items and two subscales (WE and D). The shortened scale had acceptable internal consistency ($\alpha = .83, p < .05$).

Validity analysis revealed that the new shortened scale has adequate criterion-related validity, with a positive correlation between the Type A Behavior subscale and both WE and D. These correlations were low, but because of their significance they could be regarded as showing sufficient criterion validity. Consequently, it is concluded that the scale is a reliable and valid instrument for Turkey.

According to McMillan et al. (2001), workaholism is a personal reluctance to disengage from work evidenced by the tendency to work (or to think about work) anytime and anywhere. In the present study, the drivenness dimension was replicated, therefore indicating that people with workaholic tendencies may be forced by something to work excessively. But again, the most important thing here is to understand why people voluntarily devote their time to working so excessively. Workaholics may deny, or try to rationalize, their abnormal working behavior in order to feel better. This means that self-report measures have some limitations. For this reason, using observational and questionnaire techniques together is recommended. Mudrack and Naughton (2001) suggested that certain items may be neither applicable nor meaningful to respondents in different work settings (or even to respondents in other positions in the same work setting). Consequently, different workaholism survey items may be needed for different groups of respondents.

As Kanai and Wakabayashi (2001) pointed out, working hard and enjoying it may allow people to work harder without losing the meaningfulness of their work and so the pattern of work behavior "driven to work but still enjoying work" might have occurred as a means of coping with mounting demands at work. This may also be true for Turkish people, because a significant positive correlation was computed between WE and D scores among the respondents ($r = .47, p < .05$), meaning that people who are contented to work because of inner pressures can feel enjoyment when they work. This is consistent with Kanai and Wakabayashi's findings in Japan, but is in contrast to Spence and Robbins's (1992) study, which found no correlation with the two scales. This can be interpreted as a unique aspect of workaholism among Turkish workers, similar to findings for Japanese and New Zealand workers.

Finally, there was no significant correlation among hours worked per week, WE and D. This means that hours worked are an imperfect indicator of workaholism. The main reason for this result might be the fact that most people in this study were working 45 hours a week.

In short, the present study provides preliminary evidence that the Work-BAT-Turkish Form is a valid and reliable scale to determine workaholic behavior patterns in Turkish people. Further research is needed to determine why WI may not hold for Eastern/Asian (Japan), Western/Pacific (New Zealand) and Middle Eastern (Turkey) cultures, but does hold for America.

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