

---

## COPING AND WORKAHOLISM. RESULTS FROM A LARGE CROSS-OCCUPATIONAL SAMPLE

CECILIE SCHOU ANDREASSEN

UNIVERSITY OF BERGEN — BERGEN CLINICS FOUNDATION

JØRN HETLAND

STÅLE PALLESEN

UNIVERSITY OF BERGEN

---

*Objective:* the aim of this study was to examine coping correlates of workaholism components (Work Involvement, Drive, Enjoyment of Work). *Method:* a sample of 661 Norwegian cross-occupational employees from six different companies completed a web-based survey measuring workaholism and coping styles (Active Problem Solving, Passive Avoidance, Depressive Reaction Pattern). *Results:* the Workaholism Battery (WorkBAT) components showed significant relationships with reports of coping styles. Work Involvement was positively related to Active Problem Solving and Depressive Reaction Pattern, and negatively to Passive Avoidance. Drive was positively related to Depressive Reaction Pattern. Enjoyment of Work was positively related to Active Problem Solving, and negatively to Depressive Reaction Pattern. *Conclusion:* the findings suggest that some workaholism components are related to healthy coping, whereas other workaholism components are related to unhealthy coping, which is in line with contemporary and central theories on the relationship between workaholism, stress, and health.

Key words: Workaholism; WorkBAT; Coping; Stress; Health.

*Correspondence concerning this article should be addressed to Cecilie Schou Andreassen, Faculty of Psychology, University of Bergen, Christiesgate 12, N-5015 BERGEN, Norway. E-mail: cecilie.andreassen@psych.uib.no*

---

### INTRODUCTION

Only in recent years have researchers really started to focus their attention on the concept of “workaholism” by *inter alia* investigating how workaholism can be distinguished from, or relates to other concepts (Andreassen, Hetland, & Pallesen, 2010, 2011; Andreassen, Ursin, & Eriksen, 2007). The exact nature of workaholism is described in many different ways in the existing academic literature, but most definitions include notions of overindulgence with work, long working hours, working more than what is demanded/expected, prioritizing work over most other activities, enjoyment of work, work compulsiveness, perfectionism, rigidity, high motivation, resourcefulness, impatience, and self-absorption (Andreassen et al., 2011); this implies that workaholism has both negative and positive connotations (Ng, Sorensen, & Feldman, 2007; Scott, Moore, & Miceli, 1997).

According to the most frequently used assessment of the concept, the Workaholism Battery (WorkBAT) developed by Spence and Robbins (1992), workaholism comprises three different dimensions: 1) Work Involvement (e.g., spending time efficiently at work and when off work), 2) Drive (e.g., feeling driven to work due to internal pressure), and 3) Enjoyment of Work (e.g., enjoying several aspects of work). From Spence and Robbins’ point of view, a person who

is heavily involved in work, feels motivated to work by an inner drive, and experiences low levels of enjoyment of work, is denoted as a “real” workaholic. Consequently, workaholics have elevated scores on Work Involvement and Drive but low scores on Enjoyment of Work. Work enthusiasts, on the other hand, have high scores on Work Involvement and Enjoyment of Work and low scores on Drive (Spence & Robbins, 1992). Spence and Robbins also identified a subgroup of so called Enthusiastic Workaholics, who are characterized by high scores on all three workaholism components. In accordance with the various definitions of the workaholism concept, different workaholic types have been recognised in the academic literature.

In line with this, recent research suggests that workaholism can entail both up- and downsides (Andreassen, Hetland, et al., 2010, 2011; Andreassen, Ursin, et al., 2007; Ng et al., 2007), having constructive as well as destructive effects on both employees and employers (McMillan & O’Driscoll, 2004). Specifically, research so far suggests that some aspects of workaholism, such as Enjoyment of Work, are related to good health both at the physical and the psychological level, and correlate positively with extraversion, positive work-family spillover, career satisfaction, work engagement, purpose in life, and positive affects (Andreassen et al., 2010, 2011, in press a; Bonebright, Clay, & Ankenmann, 2000; Burke, 2000; McMillan, Brady, O’Driscoll, & Marsh, 2002; Shimazu, Schaufeli, & Taris, 2010; Snir & Zohar, 2008). Lately, most researchers have come to regard workaholism first and foremost as a negative phenomenon (Taris, Schaufeli, & Shimazu, 2010). As indicated above, in recent years there has been increased focus among researchers on the potentially damaging health-related risks of workaholism, arguing that workaholism is detrimental to health (Fassel, 1990; Ng, et al., 2007; Oates, 1971; Porter, 1996; Robinson, 1998). Still, there are hardly any solid data on such connections, at least in terms of biomarkers or other objective measures; and few longitudinal studies demonstrating detrimental effects of workaholism over time have been published. Some cross-sectional studies have reported a link between workaholism and burnout (Andreassen et al., 2007; Schaufeli, Taris, & van Rhenen, 2008; Taris, Schaufeli, & Verhoeven, 2005), and potential workaholism health risks related to “stress.”

Specifically, previous studies have linked high scores on Drive with an increase in subjective stress-related somatic and psychological symptoms, whereas the opposite seems to be the case for workers who score high on Enjoyment of Work (Andreassen et al., 2007). Such findings may be explained by recent theoretical developments in stress research, emphasizing the importance of subjective psychological factors such as the perceived balance between effort and rewards (Siegrist, 1996). Investing a large amount of time and effort in one’s job without receiving the expected reward seems to represent a health risk (Siegrist, Klein, & Voigt, 1997). Another important factor related to stress and the stress response is coping (Ursin & Eriksen, 2004). Working life may put a great demand on the individual. How individuals cope with these demands varies significantly.

Theorists generally assume that coping styles are relatively firmly established, differ between individuals, and affect behavior. A distinction is commonly drawn between active coping strategies (addressing and eliminating the actual source of stress), and passive avoidance or depressive reaction strategies (reducing the symptoms of stress, but not the stressor) (Eriksen, Olff, & Ursin, 1997). The latter coping strategies are generally positively linked to increased reports of subjective health complaints — recognized as the leading cause of short and long-term sickness absence/compensation and retirement on disability pensions in Western Europe (Ihlebæk, Eriksen, & Ursin, 2002). These coping strategies are also positively linked to personality traits such as neuroticism (negative emotions, vulnerability to stress and insecurity), whereas active

coping is negatively linked to this personality trait. Furthermore, previous research suggests that Enjoyment of Work is negatively associated with neuroticism (Andreassen et al., 2010; Burke, Matthiesen, & Pallesen, 2006), and positively related to extraversion (positive energy, outgoingness). Drive is consistently found to be positively associated with neuroticism.

To the best of our knowledge, previous research has only to a very limited extent investigated how individual differences in coping are directly associated with workaholism. One previous study found that all three workaholism (WorkBAT) components were positively related to generalized self-efficacy, which can be regarded as a measure of active coping (Burke et al., 2006). In one recent study among 757 Japanese employees, workaholism, measured by the Dutch Workaholism Scale (DUWAS), was found to be positively related to both active coping (e.g., "I try to analyze the causes and solve the problem") and emotional discharge (e.g., "I blame the person who has caused the situation") (Shimazu et al., 2010). The DUWAS correlates primarily with the Drive subscale of the WorkBAT (Andreassen, Hetland, & Pallesen, in press b). Previous studies have linked workaholism with Type A-behavior (Robinson, 1999), and Type-A behavior, particularly anger, has been shown to be associated with ineffective coping styles, such as helplessness and submissive approaches (Sahin, Basim, & Akkoyun, 2011). Job satisfaction, which correlates positively with Enjoyment of Work (Andreassen et al., 2011) has been found to be inversely related to destructive coping strategies (Chen, Lin, Wan, & Hou, 2009).

As very few studies have directly investigated the relationship between workaholism and coping, more research on this topic is obviously warranted. Accordingly, the present study aims to investigate the relationship between different coping styles and workaholism by investigating how these coping styles (Active Problem Solving, Passive Avoidance, Depressive Reaction Pattern) relate to the three workaholism components, controlling for basic demographic and work background factors in a cross-occupational sample. We hypothesize that Drive will be positively associated with measures of passive coping and negatively associated with active coping, whereas Enjoyment of Work is assumed to show the opposite pattern of relationship. Based on the current status of knowledge, we could not specify any hypothesis regarding the relationship between Work Involvement and coping strategies.

## METHODS

### Sample

The sample comprised 661 out of 1300 (response rate 51%) cross-occupational employees from different companies in Norway: managers of a major national pharmaceutical company ( $n = 127$ ), employees of a regional healthcare sector company ( $n = 96$ ), a national television (TV) station ( $n = 172$ ), two different human resource (HR) consultancy companies ( $n = 80$ ), and employees from two university faculties ( $n = 186$ ). Females comprised 54% ( $n = 360$ ) of the respondents. The mean age of the sample was 42.6 years ( $SD = 10.5$ ), ranging from 16 to 72 years. Most of the respondents were educated to university level (87%) and were full-time employees (88%); 35% worked less than 40 hours per week, 28% between 41 and 45 hours, 19% between 46 and 50 hours, and 18% worked more than 51 hours per week; 351 employees (53%) were top-/mid-level managers or performed other managerial duties.

## Instruments

**Demographics.** Questions were asked pertaining to age, gender, education, percentage of full-time equivalent, managerial responsibilities, work sector (dummy coded as either healthcare sector, TV-station sector, pharmaceutical sector, human resources sector or university sector), and number of working hours per week. All demographic and organizational variables were measured by forced choice response alternatives.

**Workaholism Battery (WorkBAT).** Workaholism was measured using the 25-item WorkBAT (Spence & Robbins, 1992). The Norwegian version was based on a standardized translation-back-translation procedure. The WorkBAT measures workaholism on three subscales, where each item is rated along a five-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*): Work Involvement (eight items; e.g., “I spend my free time on projects and other activities”), reflects the need to spend time efficiently both at work and when off work, the blurred boundaries between work and private life, as well as the inability to relax; Drive (seven items; e.g., “I seem to have an inner compulsion to work hard”) reflects internal pressure or motivation for work and the frequency of thinking about work; Enjoyment of Work (10 items; e.g., “Sometimes I enjoy my work so much I have a hard time stopping”) assesses satisfaction from work. All scales were scored so that high scores corresponded to high levels of the construct in question (high levels of Work Involvement, Drive and Enjoyment of Work, respectively). We have previously reported both confirmatory factor analytic (CFA) data and exploratory factor analytic (EFA) data concerning the WorkBAT, based on the same sample used for the present paper (Andreassen et al., 2010, in press b). The original three-factor model had a moderately good fit ( $RMSEA = .071$ ,  $CFI = .805$ ) with the data. The EFA showed that the Work Enjoyment and the Drive items loaded on two separate factors, as expected, whereas the Work Involvement items loaded on two additional factors (Andreassen et al., in press b). In order for our data to be comparable to other studies, we use the original three-factor solution of Spence and Robbins (1992) in the present study.

**Utrecht Coping List (UCL).** Coping was measured using a short version (Eriksen et al., 1997) of the UCL (Schreurs, Van De Willige, Brosschot, & Grau, 1993). The short UCL measures how respondents would cope with problems on three subscales answered. All items are answered on a four-point scale ranging from 1 (*seldom or never*) to 4 (*very often*): Active Problem Solving (seven items; e.g., “I find out everything about the problem”) reflects the tendency to actually deal with the cause of the problem; Passive Avoidance (eight items; e.g., “I wait and see what will happen”) reflects the extent to which respondents reduce the symptoms of the problem without addressing the source of the problem, for example by using defense mechanisms such as denial, repression, or distancing oneself from the problem; Depressive Reaction Pattern (seven items; e.g., “I worry about the past”) comprises the tendency of feeling overpowered by and being pessimistic about the outcome of the potentially problematic situation, and may include social withdrawal, worrying, taking (anxiolytic) medication etc.

## Procedure

Data were collected in a web-based survey about working life in 2007-2008 among employees in large companies in Norway. Information was given in advance to participants about the aims and objectives of the study (by the CEOs of the organizations via electronic mail). A to-

tal of 1300 invitations were sent, containing information about the survey and informed consent. Before initiating the study, the Regional Committee for Medical and Health Research Ethics, Health Region West, Norway approved the study protocol.

### Statistics

Data analyses were conducted using the SPSS 16.0 statistical package for Windows. Table 1 shows the means, standard deviations, and the bivariate correlations of the measured constructs, including their respective internal reliabilities. A series of hierarchical multiple regression analyses were conducted to test for the associations between different coping styles and the three workaholism subscales. The sum scores of the three workaholism components comprised the dependent variables. Prior to conducting the regression analyses, checks for normality, multicollinearity, linearity, and homoscedasticity were conducted. No violations of assumptions were found. Relevant background variables were controlled for in all regressions. The independent variables were entered into the equation in three steps. Individual demographic variables (age, gender) were entered at Step 1. Work-related variables (professional position, employee sector) were entered at Step 2. Work hours were not included in the regressions, since this may be viewed as an alternative measure rather than a correlate of workaholism (Ng et al., 2007). Finally, the three coping styles were all entered at Step 3.

TABLE 1  
Correlations and descriptive statistics of workaholism components and coping styles ( $N = 661$ )

Variables	1	2	3	4	5	6
1. Work Involvement	—					
2. Drive	.30**	—				
3. Enjoyment of Work	.14**	.03	—			
4. Active Problem Solving	.14**	.06	.22**	—		
5. Passive Avoidance	-.17**	.04	-.11**	-.28**	—	
6. Depressive Reaction	.07	.31**	-.15**	-.12**	.31**	—
<i>M</i>	21.12	21.82	33.89	18.87	15.05	10.09
<i>SD</i>	4.82	5.84	6.37	3.13	2.75	2.31
Range	10-39	7-35	12-50	10-28	8-25	7-21
$\alpha$	.63	.82	.77	.60	.71	.66
Items	8	7	10	7	8	7

\*\* $p < .01$ .

### RESULTS

#### Reliability

All subscales were tested for internal consistency using Cronbach's alpha (see Table 1). Two subscales, the Active Problem Solving scale (.60) and the Work Involvement subscale (.63), had inter-item reliabilities that were quite low.

## Correlations

There were significant correlations between all three workaholism components and all the three subscales of coping styles, with the strongest correlation being between Drive and Depressive Reaction Pattern ( $r = .31$ ) (see Table 1). Work Involvement correlated positively with Active Problem Solving, but negatively with Passive Avoidance. Drive correlated positively with Depressive Reaction Pattern. Enjoyment of Work correlated positively with Active Problem Solving ( $r = .22$ ), and negatively with Passive Avoidance and Depressive Reaction Pattern.

## Regression Analyses

Table 2 shows the results of the hierarchical multiple regression analyses examining the relationships between coping styles and the three workaholism components when controlling for age, gender, position, and work sector.

TABLE 2  
 Hierarchical multiple regression analyses with WorkBAT subscales as dependent variables ( $N = 661$ )

Variable	Work Involvement		Drive		Enjoyment of Work	
	$\beta$	$R^2/\Delta R^2$	$\beta$	$R^2/\Delta R^2$	$\beta$	$R^2/\Delta R^2$
Step 1		.017**		.032***		.019**
Age	.10**		-.18***		.07	
Gender <sup>a</sup>	-.08		.01		-.11**	
Step 2		.060/.043***		.081/.049***		.055/.036***
Age	.08		-.20***		.09*	
Gender	-.06		.06		-.06	
Position <sup>b</sup>	.07		.18***		.02	
Sector <sup>c</sup>						
Pharmacy	-.18***		-.12*		-.06	
TV	-.20***		.00		.10*	
HR	-.18***		.01		.08	
Healthcare	-.13**		-.15***		-.11*	
Step 3		.116/.056***		.169/.088***		.116/.062***
Age	.08		-.15***		.07	
Gender	-.07		.04		-.03	
Position	.04		.19***		-.03	
Sector						
Pharmacy	-.16***		-.09		-.07	
TV	-.21***		.04		.08	
HR	-.19***		.05		.04	
Healthcare	-.14***		-.10*		-.16***	
Active Problem Solving	.11**		.07		.22***	
Passive Avoidance	-.19***		-.03		-.01	
Depressive Reaction	.13***		.31***		-.12***	

Note. <sup>a</sup>Gender (1 = male, 2 = female), <sup>b</sup>Position (1 = follower, 2 = leader/leadership responsibility), <sup>c</sup>University sector represents the reference group.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

*Work Involvement.* At Step 3 for Work Involvement, all three coping subscales were significant predictors, explaining 6% of the total variance. Individuals who scored higher on Active Problem Solving and Depressive Reaction Pattern, and lower on Passive Avoidance, indicated higher levels of Work Involvement. Passive Avoidance made the strongest contribution to the variance of scores for Work Involvement.

*Drive.* For Drive, Depressive Reaction Pattern was the only significant contributory variable at Step 3, explaining 9% of the total variance. Individuals who scored higher on Depressive Reaction Pattern indicated higher levels for Drive.

*Enjoyment of Work.* Finally, for Enjoyment of Work, Active Problem Solving and Depressive Reaction Pattern were the significant coping variables at Step 3, explaining 6% of the total variance. Individuals who scored higher on Active Problem Solving, and lower on Depressive Reaction Pattern, indicated higher levels for Enjoyment of Work. Active Problem Solving was the strongest predictor variable in the model (see Table 2).

## DISCUSSION

This study is to the best of our knowledge the very first that investigates the relationship between all three workaholism components proposed by Spence and Robbins (1992) and three different coping dimensions.

In general, the results revealed that the three workaholism components were significantly correlated with the different coping styles. A series of hierarchical multiple regressions showed that coping styles uniquely explained between six and nine percent of the variance in the three workaholism components, when controlling for basic background variables. In the following, the specific findings from the regression analysis for each workaholism component will be discussed.

Work Involvement was found to be positively associated with Active Problem Solving and Depressive Reaction Pattern, and to be linked with low scores of Passive Avoidance. Work Involvement includes aspects of being highly energized and ambitious, which corresponds to traits of Active Problem Solving. Furthermore, Work Involvement reflects being engaged in new and interesting projects, which may correspond to low scores of Passive Avoidance, thus explaining the significant associations between these variables. Our findings seem reasonable considering that individuals who score high on Work Involvement appreciate spending time effectively, and get restless if time is spent on more unproductive arrangements, both at work and when off work. Still, Work Involvement was also positively associated with Depressive Reactions, which suggest that heavy and intensive work involvement takes its toll on the individual. Overall, Work Involvement was associated with both healthy and unhealthy coping styles. This is in line with previous studies reporting that Work Involvement shows an inconsistent relationship with different health parameters (Andreassen et al., in press a).

Drive was only associated, positively, with Depressive Reaction Pattern. This finding is in conflict with previous findings (Burke et al., 2006; Shimazu et al., 2010). Although the study by Shimazu et al. (2010) used the DUWAS and not the WorkBAT for assessing workaholism, we have previously shown that DUWAS corresponds best with the Drive subscale of the WorkBAT (Andreassen et al., in press b). The results are in line with notions of a parallel between obsessive-compulsiveness and Drive, and previous studies have shown the former to be generally linked with decreased happiness and increased dysphoric emotions (Mineka, Watson, & Clark,

1998). Drive has in previous studies been linked to poor health outcomes (Andreassen, Hetland, et al., 2011; Andreassen, Ursin, et al., 2007). Depressive Reaction Pattern has further been proven to be a relevant predictor of health problems. One can speculate that individuals who score high on Drive pursue perfection and do not cope well with challenges at work, or fail to reach self-imposed goals (“If I only worked more and harder, I would finally reach my goals”). Sustained activation and inability to recover (e.g., poor sleep) can therefore occur, thereby increasing the risk of somatic disease or illness (Kristenson, Eriksen, Sluiter, Starke, & Ursin, 2004; Ursin & Eriksen, 2004). High demands combined with a negative or no response outcome expectancy (lack of coping) is positively associated with reports of subjective health complaints (Ursin & Eriksen, 2004). Accordingly, high scores on Drive may be related to sustained activation combined with poor recovery, which may have several negative consequences for the individual’s health. Individuals with high scores on Drive may stretch themselves in “all directions” in the hope of being able to handle the situation. To the outside observer, they may cope well with challenges at work, but, under the surface, they may strive to cope, with no or negative response outcome expectancy. Incomplete recovery from mentally and physically demanding tasks may occur, particularly when the subjects also experience low control and low anticipation of rewards from the work (Siegrist et al., 1997; Sluiter, Frings-Dresen, Meijman, & van der Beek, 2000).

Enjoyment of Work was positively associated with Active Problem Solving, and negatively with Depressive Reaction Pattern. This is in agreement with findings obtained in previous research (Andreassen et al., 2007; Burke et al., 2006). High degrees of Active Problem Solving, and low degrees of depressive and resigned coping strategies, are related to good health (Ursin & Eriksen, 2004) and the higher order personality trait of extraversion, which was recently suggested to be a relevant predictor of Enjoyment of Work (Andreassen et al., 2010; Burke et al., 2006). These findings are also in accordance with the stress model of Ursin and Eriksen (2004). In line with this, individuals with high scores on Enjoyment of Work would qualify as “copers,” with positive response outcome expectancies (e.g., generalized high self-efficacy) in relation to challenging work demands, accompanied by a short-lived activation followed by a rapid recovery.

Taken together, the results of the present study point to the possibility that some workaholism components (e.g., Enjoyment of Work) may be related to healthy coping, whereas other workaholism components (particularly Drive) seem to be related to unhealthy coping. Overall, the results from the present study are in line with accumulated evidence linking especially Enjoyment of Work with good outcomes/good health, and Drive with poor outcomes/poor health (Andreassen, Hetland, et al., 2010; Andreassen, Ursin, et al., 2007; Bonebright et al., 2000; McMillan et al., 2002; Ng et al., 2007; Schaufeli et al., 2008; Taris et al., 2005). However, the cross-sectional nature of the study is an obstacle in revealing direction of causality.

Several limitations are inherent in the present study. First, the internal reliabilities of some of the scales failed to exceed acceptable research standards, which reduces confidence in our findings — and may have weakened the strength of the relationships investigated in the present study. Although the WorkBAT is by far the most used measure of workaholism, one cautionary comment should be made about the Work Involvement subscale, as it has consistently failed to show appropriate psychometric properties across studies (Andreassen et al., 2011). Second, as the study participants were active workers; the relationship between workaholism and coping may be concealed by the fact that subjects on long-term sick leave, etc., were not included in the sample. The present study did not incorporate any objective registry data pertaining, for

example, to data on sick leave. Also, the data may have been distorted by self-selection bias. As we have no information about non-respondents, and the data rely on a convenience sample, we do not know whether the sample is representative and whether the results can be generalized to other populations. Third, like other cross-sectional designs, causality in the present study cannot be inferred — preventing us from drawing conclusions about possible cause-and-effect relationships. Furthermore, the data relied exclusively on self-reports, thus our results may have been influenced by common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Without being affected by the limitations mentioned, the present study is the first that looks at the relationship between measures of coping styles and different workaholism components. Although the sample may not be appropriate for estimation-specific population parameters, we believe that the sample is suitable for estimations of the relationship between parameters — thus we believe that our data show that it is important to discriminate between different workaholic characteristics when investigating associations with potential outcomes and personality traits. Workaholism, isolated or together with contextual factors, can affect job satisfaction, work-life conflict, and health in different ways (Andreassen et al., 2007; Bonebright et al., 2000; McMillan et al., 2002; Ng et al., 2007; Schaufeli et al., 2008). As workaholism may have major health and social implications, research on this topic is of high importance. Future research that incorporates potential correlates of workaholism in extensive longitudinal and representative research designs embedded in contemporary theoretical frameworks is particularly warranted in this field of research.

## ACKNOWLEDGEMENTS

The authors would like to thank the employees and managements of the organizations for their collaboration. We would also like to thank Trude Remme and Arne Magnus Morken for technical assistance.

## REFERENCES

- Andreassen, C. S., Hetland, J., & Pallesen, S. (2010). The relationship between workaholism, basic needs satisfaction at work and personality. *European Journal of Personality*, 24, 3-17. doi:10.1002/per.737
- Andreassen, C. S., Hetland, J., & Pallesen, S. (2011). "Workaholism" and potential outcomes in well-being and health in a cross-occupational sample. *Stress and Health*, 27, e209-e212. doi:10.1002/smj.1366
- Andreassen, C. S., Hetland, J., & Pallesen, S. (in press a). Workaholism and work-family spillover in a cross-occupational sample. *European Journal of Work and Organizational Psychology*.
- Andreassen, C. S., Hetland, J., & Pallesen, S. (in press b). Psychometric assessment of workaholism measures. *Journal of Managerial Psychology*.
- Andreassen, C. S., Ursin, H., & Eriksen, H. R. (2007). The relationship between strong motivation to work, "workaholism", and health. *Psychology and Health*, 22, 615-629. doi:10.1080/14768320600941814
- Bonebright, C. A., Clay, D. L., & Ankenmann, R. D. (2000). The relationship of workaholism with work-life conflict, life satisfaction, and purpose in life. *Journal of Counseling Psychology*, 47, 469-477. doi:10.1037/0022-0167.47.4.469
- Burke, R. J. (2000). Workaholism in organizations: Psychological and physical well-being consequences. *Stress Medicine*, 16, 11-16. doi:10.1002/(SICI)1099-1700(200001)16:1<11::AID-SMI825>3.0.CO;2-U
- Burke, R. J., Matthiesen, S. B., & Pallesen, S. (2006). Personality correlates of workaholism. *Personality and Individual Differences*, 40, 1223-1233. doi:org/10.1016/j.paid.2005.10.017
- Chen, C., Lin, C., Wang, S., & Hou, T. (2009). A study of job stress, coping strategies, and job satisfaction for nurses working in middle-level hospital operating rooms. *Journal of Nursing Research*, 17, 199-211. doi:10.1097/JNR.0b013e3181b2557b

- Eriksen, H. R., Olff, M., & Ursin, H. (1997). The CODE: A revised battery for coping and defense and its relations to subjective health. *Scandinavian Journal of Psychology*, 38, 175-182. doi:10.1111/1467-9450.00025
- Fassel, D. (1990). *Working ourselves to death: The high cost of workaholism, the rewards of recovery*. San Francisco, CA: Harper Collins.
- Ihlebæk, C., Eriksen, H. R., & Ursin, H. (2002). Prevalence of subjective health complaints (SHC) in Norway. *Scandinavian Journal of Public Health*, 30, 20-29. doi:10.1177/14034948020300010701
- Kristenson, M., Eriksen, H. R., Sluiter, J. K., Starke, D., & Ursin, H. (2004). Psychobiological mechanisms of socioeconomic differences in health. *Social Science & Medicine*, 58, 1511-1522. doi:10.1016/S0277-9536(03)00353-8
- McMillan, L. H. W., Brady, E. C., O'Driscoll, M. P., & Marsh, N. V. (2002). A multifaceted validation study of Spence and Robbins (1992) Workaholism Battery. *Journal of Occupational and Organizational Psychology*, 75, 357-368. doi:10.1348/096317902320369758
- McMillan, L. H. W., & O'Driscoll, M. P. (2004). Workaholism and health: Implications for organizations. *Journal of Organizational Change Management*, 17, 509-519. doi:org/10.1108/09534810410554515
- Mineka, S., Watson, D., & Clark, L. A. (1998). Comorbidity of anxiety and unipolar mood disorders. *Annual Review of Psychology*, 49, 377-412. doi:10.1146/annurev.psych.49.1.377
- Ng, T. W. H., Sorensen, K. L., & Feldman, D. C. (2007). Dimensions, antecedents, and consequences of workaholism: A conceptual integration and extension. *Journal of Organizational Behavior*, 28, 111-136. doi:10.1002/job.424
- Oates, W. (1971). *Confessions of a workaholic: The facts about work addiction*. New York: World.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903. doi:org/10.1037%2F0021-9010.88.5.879
- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1, 70-84. doi:10.1037/1076-8998.1.1.70
- Robinson, B. E. (1998). *Chained to the desk: A guidebook for workaholics, their partners and children and the clinicians who treat them*. New York, NY: New York University Press.
- Robinson, B. E. (1999). The work addiction risk test: Development of a tentative measure of workaholism. *Perceptual and Motor Skills*, 88, 199-210. doi:10.2466/pms.1999.88.1.199
- Sahin, N. H., Basim, H. N., & Akkoyun, N. (2011). Three critical components in the Type-A and stress relationship: Anger, ineffective coping, and obsession with work. *Turk Psikoloji Dergisi*, 26, 31-51.
- Schaufeli, W. B., Taris, T. W., & van Rhenen, W. (2008). Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well being? *Applied Psychology: An International Review*, 57, 173-203. doi:10.1111/j.1464-0597.2007.00285.x
- Schreurs, P. J. G., Van De Willige, G., Brosschot, J. F., & Grau, G. (1993). *De Utrechtse Copinglijst: UCL Handleiding* [The Utrecht Coping List; UCL. Manual]. Lisse, The Netherlands: Swets en Zeitlinger.
- Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations*, 50, 287-314. doi:10.1177/001872679705000304
- Shimazu, A., Schaufeli, W. B., & Taris, T. W. (2010). How does workaholism affect worker health and performance? The mediating role of coping. *International Journal of Behavioral Medicine*, 17, 154-160. doi:10.1007/s12529-010-9077-x
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27-41. doi:10.1037/1076-8998.1.1.27
- Siegrist, J., Klein, D., & Voigt, K. H. (1997). Linking sociological with physiological data: The model of effort-reward imbalance at work. *Acta Physiologica Scandinavica*, 161, 112-116.
- Sluiter, J. K., Frings-Dresen, M. H. W., Meijman, T. F., & van der Beek, A. J. (2000). Reactivity and recovery from different types of work measured by catecholamines and cortisol: A systematic overview. *Occupational and Environmental Medicine*, 57, 298-315. doi:10.1136/oem.57.5.298
- Snir, R., & Zohar, D. (2008). Workaholism as discretionary time investment at work: An experience-sampling study. *Applied Psychology: An International Review*, 57, 109-127. doi:10.1111/j.1464-0597.2006.00270.x
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment*, 58, 160-178. doi:10.1207/s15327752jpa5801\_15
- Taris, T. W., Schaufeli, W., & Shimazu, A. (2010). The push and pull of work: The difference between workaholism and work engagement. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement. A handbook of essential theory and research* (pp. 39-53). Hove, UK: Psychology Press.
- Taris, T. W., Schaufeli, W. B., & Verhoeven, L. C. (2005). Workaholism in the Netherlands: Measurement and implications for job strain and work-nonwork conflict. *Applied Psychology*, 54, 37-60. doi:10.1111/j.1464-0597.2005.00195.x
- Ursin, H., & Eriksen, H. R. (2004). The cognitive activation theory of stress. *Psychoneuroendocrinology*, 29, 567-592. doi:org/10.1016%2FS0306-4530%2803%2900091-X