

DEMOGRAPHIC AND OCCUPATIONAL CORRELATES OF WORKAHOLISM¹

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Summary.—Drawing on a convenience sample of 9,160 Dutch employees, the present study examined whether commonly held ideas about the associations between demographic, professional, and occupational characteristics and workaholism would be observed. For example, it is sometimes assumed that managers are more likely to display workaholic tendencies than others. Analysis of variance was used to relate workaholism scores (measured as the combination of working excessively and working compulsively) to participant age, sex, employment status (self-employed or not), profession, and occupational sector. Relatively high average scores on workaholism were obtained by workers in the agriculture, construction, communication, consultancy, and commerce/trade sectors, as well as managers and higher professionals. Low scores were found for those in the public administration and services industry sectors, and for nurses, social workers, and paramedics. The other characteristics were not or only weakly related to workaholism.

A body of research has addressed the correlates of workaholism—the compulsion or the uncontrollable need to work incessantly (Oates, 1971). Previous findings show that workaholism is often associated with adverse outcomes. For example, workaholics are likely to experience work-home conflict (Bonebright, Clay, & Ankenmann, 2000), report higher stress and health complaints than others (Shimazu, Schaufeli, & Taris, 2010), and experience low satisfaction with work (Burke & MacDermid, 1999). Finally, workaholism has been associated with personality traits such as perfectionism and neuroticism (Clark, Lelchook, & Taylor, 2010). Although many of us have specific ideas about the characteristics of the “typical” workaholic (for example, managers are often believed to be more likely to display workaholic behaviors, such as working excessively long hours; cf. Brett & Stroh, 2003), the demographic and occupational profile of the “typical” workaholic has not yet been characterized. Therefore, at present it is unknown whether and to what extent common stereotypes concerning the characteristics of workaholics actually hold up. In this study, the demographic and occupational correlates of workaholism were examined.

METHOD

Participants

The sample included 9,160 Dutch workers (56% men; *M* age = 38.0

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yr., $SD=10.4$) who participated in nine independent studies on workaholism during 2001–2008. Six of these (overall $N=3,987$, 51% overall response rate) were conducted as part of regular health audits conducted by various Dutch occupational health services. One study ($N=4,767$, response rate unknown) was conducted among the readers of a popular Dutch psychology magazine. This magazine placed an Internet link on its web site that could be clicked by those interested in participating in an online survey on work and well-being. The remaining studies (two studies, total $N=406$, overall response rate unknown) were conducted as part of two master's theses. Parts of the overall data set were used in other publications (e.g., Schaufeli, Taris, & Bakker, 2008; Schaufeli, Taris, & van Rhenen, 2008; Schaufeli, Bakker, van der Heijden, & Prins, 2009; Shimazu, *et al.*, 2010). The overall data set included in the present manuscript has not been used in previous research. For the current study, its characteristics were compared to those of the general Dutch working population of 16 years and older using figures of the Dutch census (Centraal Bureau voor de Statistiek, 2009). This comparison showed that the sample was roughly comparable to the Dutch population in terms of gender (sample: 45% female; population: 51% female) and age (sample: M age = 38 yr.; population: M age = 40 yr.). About 38% of the sample was employed in the health and social work sector (as compared to 12% of the population), whereas workers in most other sectors were slightly underrepresented. Thus, the sample is not representative of the Dutch labor market in terms of the sectors included, meaning that the findings should be interpreted with caution.

Measures

Workaholism was measured with the Dutch Work Addiction Scale (Schaufeli, Shimazu, & Taris, 2009). In line with current theorizing (e.g., Scott, Moore, & Miceli, 1997; Shimazu & Schaufeli, 2009), this instrument consists of two subscales. The most obvious characteristic of workaholics is they work excessively hard and beyond what is required. This behavioral aspect of workaholism is measured using the Control tendency scale of Robinson's Work Addiction Risk test (1999; relabeled Working Excessively: nine items, including "I seem to be in a hurry and racing against the clock" and "I find myself continuing to work after my coworkers have called it quits," 1: Almost never, 2: Sometimes, 3: Often, 4: Almost always; $\alpha = .81$). As workers may work not only because of workaholism, but for a variety of reasons, this subscale is complemented with a subscale tapping the cognitive/compulsive aspect of workaholism. This aspect is measured with Spence and Robbins's Drive scale (1992; labeled Working compulsively: seven items, including "I feel that there's something inside me that drives me to work hard" and "It is important to me to work hard, even if

I do not enjoy what I am doing," 1: Almost never, 2: Sometimes, 3: Often, 4: Almost always; $\alpha = .84$). It is high scores on both subscales that signifies workaholism, in that it is the inner compulsion to work hard that turns working excessively into workaholism (Schaufeli, Shimazu, *et al.*, 2009). The correlation among the two subscales was .64 ($p < .001$), providing further justification for combining these two aspects of workaholism. Demographic and occupational characteristics were measured by five items tapping participants' sex, age, labor market sector, profession, and employment status (self-employed or not), respectively.

Statistical Analysis

Univariate analysis of variance (ANOVA) was conducted to examine workaholism across the study variables. As the sample was very large, even practically irrelevant differences among groups may become statistically significant. Moreover, the exploratory nature of the study may increase the risk of capitalization on chance. To offset these issues to some extent, a more rigid alpha level of $p < .001$ was employed rather than the more commonly used 5% threshold. Moreover, effect sizes (η^2 and, where applicable, Cohen's d) are provided for each analysis; effect sizes of $\eta^2 < .01$ (1% of variance accounted for) or below will be considered irrelevant from a practical point of view and are not further discussed.

RESULTS

Men ($M = 2.19$, $SD = .50$) did not differ significantly from women ($M = 2.21$, $SD = .50$) in their scores on workaholism ($F_{1,9114} = 3.45$, $p > .001$; $\eta^2 < 0.001$, Cohen's $d = 0.04$). Older employees (age > 45 yr.) obtained on average slightly lower scores on workaholism ($M = 2.15$, $SD = 0.51$) than younger employees (age < 30 yr.; $M = 2.23$, $SD = 0.50$) and middle-aged employees ($M = 2.22$, $SD = 0.49$; $F_{2,9113} = 20.10$, $p < .001$). However, although this effect was statistically significant, with an η^2 of only 0.004, its practical relevance is negligible. Further, although the self-employed obtained higher mean scores on workaholism ($M = 2.25$, $SD = 0.55$) than others ($M = 2.19$, $SD = 0.49$), this difference was not significant ($F_{1,9114} = 9.66$, $p > .001$; $\eta^2 = 0.001$, Cohen's $d = 0.12$).

Table 1 shows that different labor market sectors varied significantly in terms of the average level of workaholism of workers in these sectors ($F_{14,9143} = 19.25$, $p < .001$; $\eta^2 = 0.03$). Table 1 provides the means and standard deviations on workaholism as a function of occupational sector. Workers in the communication, consultancy, and commerce/trade sectors obtained, on average, higher scores on workaholism than others, with mean scores in the top five of high-scoring sectors. However, workers in the agricultural and construction sectors were also in this top five. Inspection of the scores on the two factors constituting the overall workaholism

TABLE 1
MEANS AND STANDARD DEVIATIONS OF WORKAHOLISM AS
A FUNCTION OF OCCUPATIONAL SECTOR AND PROFESSION

Sector	N	Workaholism $F^a = 19.25,$ $\eta^2 = 0.03$		Working Compulsively ^c $F^a = 4.04,$ $\eta^2 = 0.01$		Working Excessively ^c $F^a = 5.55,$ $\eta^2 = 0.01$	
		M	SD	M	SD	M	SD
Agriculture	39	2.55	.57	2.48	.66	2.61	.59
Construction	111	2.38	.49	2.34	.61	2.49	.50
Communication	664	2.35	.44	2.15	.54	2.51	.43
Consultancy	1,098	2.32	.49	2.17	.59	2.45	.49
Commerce/Trade	212	2.27	.57	2.19	.64	2.34	.59
Banking and insurance	150	2.26	.54	2.11	.59	2.37	.56
Transport	59	2.26	.51	2.11	.61	2.37	.51
Culture	155	2.22	.55	2.13	.64	2.29	.56
Education	640	2.21	.52	2.07	.62	2.32	.51
Industry	634	2.20	.55	2.24	.64	2.16	.61
Health and social work	3,522	2.17	.47	1.99	.57	2.31	.48
Law enforcement, military	434	2.16	.52	2.03	.60	2.27	.55
Other	167	2.12	.46	1.89	.53	2.30	.48
Public administration	587	2.09	.46	1.94	.55	2.20	.47
Services	686	2.08	.54	2.12	.64	2.05	.56
Profession		$F^b = 19.02,$ $\eta^2 = 0.03$		$F^b = 3.68,$ $\eta^2 = 0.01$		$F^b = 15.55,$ $\eta^2 = 0.03$	
Manager	1,280	2.35	.47	2.14	.56	2.51	.47
Higher professional	610	2.34	.47	2.19	.56	2.45	.47
Sales	163	2.26	.56	2.21	.63	2.30	.58
Artist	106	2.24	.50	2.13	.57	2.33	.51
Blue collar	150	2.24	.58	2.16	.67	2.30	.61
Teacher, primary school	102	2.23	.48	2.13	.58	2.30	.48
Medical resident	2,119	2.22	.44	2.02	.57	2.37	.43
Pink collar	152	2.20	.61	2.20	.66	2.20	.64
White collar	1,223	2.19	.49	2.03	.59	2.32	.50
Teacher, secondary school	305	2.18	.57	2.06	.68	2.28	.54
Executive	505	2.16	.51	2.01	.59	2.29	.55
Physician	166	2.14	.51	1.94	.59	2.31	.53
Lower professional	257	2.10	.49	1.98	.58	2.20	.49
Paramedic	305	2.06	.46	1.90	.56	2.20	.48
Social worker	383	2.03	.49	1.90	.56	2.14	.51
Nurse	225	2.02	.50	1.93	.56	2.11	.54

Note.—^aThis F value has (14, 9143) degrees of freedom. ^bThis F value has (15, 8045) degrees of freedom. ^cThe multivariate F s for the effects of Sector and Profession were significant, $F_{\text{Sector}}(28, 14,432) = 4.01, p < .001; \eta^2 = 0.01,$ and $F_{\text{Profession}}(30, 14,432) = 10.4, p < .001, \eta^2 = 0.02.$
* $p < .001.$

score (i.e., working compulsively and working excessively, Table 1) shows that these five sectors usually also belonged to the top five of sectors on these two measures. Apparently, workers in the sectors with high mean workaholism scores reported, on average, slightly higher scores on both working compulsively *and* excessively than workers in other sectors. The lowest scores were found among workers in the services industry, public administration, law enforcement/military, and health/social work sectors, as well as among workers in non-specified sectors ("other"). Again, the average scores of these sectors on working excessively/compulsively were also among the lowest of the sectors included in Table 1.

As regards profession, it was found that the professions included in the current research varied significantly on workaholism as well ($F_{15,8045} = 19.02, p < .001; \eta^2 = 0.034$). Table 1 shows managers and higher-level professionals obtained, on average, high scores on workaholism, whereas nurses, social workers, and paramedics, on average, reported lower workaholism. The scores on the two workaholism indicators were as expected: managers and higher professionals reported on average relatively high scores on both working excessively and compulsively. The reverse applied to paramedics, social workers, and nurses.

DISCUSSION

Two findings of the present study are worth noting. The results partially confirm common stereotypes about the risk groups for workaholism: managers and high-level professionals and those working in the labor market sectors such as the communication, commerce/trade, and consultancy sectors are particularly more likely to work both compulsively and excessively; the reverse applied to those in public administration. Interestingly, the size of these effects is relatively small. Although the differences in workaholism among these groups are statistically significant, this is mainly due to the large sample size. The differences themselves are not particularly impressive. Thus, although there is some justification for commonly held ideas about typical risk groups for workaholism, the variation *within* these risk groups (e.g., managers) is considerable, with substantial numbers of members of these risk groups scoring below the mean scores of low-risk groups for workaholism (cf. Table 1). These findings contribute to the understanding of workaholism, in that they qualify ideas about the typical risk groups for workaholism.

Several groups with high mean workaholism scores, especially construction and agricultural sectors, had not previously been recognized. This somewhat unexpected finding is not only due to the fact that workers in these occupations must respond to high environmental demands, since these groups also obtained the highest average scores on the "working compulsively" indicator of workaholism (see Table 1). Thus, workers

in these occupations work excessively *and* compulsively. It is possible that having to meet these high environmental demands instills the compulsion to work hard (e.g., to feel guilty when not working) due to a socialization process. Conversely, it is conceivable workers with a workaholic predisposition actively seek out occupations that allow them to live up to their disposition, in that in occupations like farming and construction work, there is always something to do—the environmental demands in these occupations are high and will offer workaholics excellent opportunities to invest too much time in their jobs. The latter position is consistent with Benjamin Schneider's Attraction-Selection-Attrition theory (Schneider, Smith, & Goldstein, 2000). Which of these interpretations is correct can only be tested using a longitudinal design that allows researchers to follow the vocational trajectories of individual workers across time.

The main limitations of this study are as follows. The cross-sectional design implies that no causal conclusions can be drawn, e.g., whether being in a particular profession "causes" workaholism, or whether workaholics seek professions in which they can live up to their workaholic tendencies. The fact that a convenience sample was used means caution must be taken when generalizing these findings to other members of the groups under study. A third issue is the scores of the participants on workaholism were on average not especially problematic, with the scores in Table 1 ranging from 2.02 to 2.55 (which corresponds with "Sometimes" to "Often" responses to the survey items). This was to be expected, since it is unlikely that serious psychological problems will be reported by a large part of a nonclinical population. However, this implies that at least *some* of the participants in *some* of the study groups report high workaholism. For example, for a normally distributed variable, a mean score of 2.55 ($SD = 0.57$, cf. Table 1) means that 17% of this group reports a score of 3.12 or higher on workaholism, corresponding with the "Almost always" response to the survey items. Finally, the large sample size means that even very small and practically irrelevant effects will reach statistical significance. To address this issue, a conservative alpha level of .001 was used and considered effects accounting for less than 1% of the variance in workaholism as practically irrelevant. Applying these procedures yielded two statistically significant and practically relevant effects (i.e., for occupational sector and profession), but even here the percentage of variance accounted for was relatively low (3.4% at most). Thus, the practical relevance of the findings should not be overstated.

In spite of these limitations, the study has some implications. Clearly, the prototypical picture of a workaholic is too narrow, in that workaholics are not only well-paid professionals and managers, but also may be construction workers or farmers. Indeed, these occupational and demo-

graphic characteristics were only weakly related to workaholism, suggesting that research on the antecedents of workaholism should focus on environmental and personality factors instead. Further, insofar as there were associations between occupational factors and workaholism, it is as yet unclear whether these associations are caused by a process in which the environment stimulates the development of workaholism (e.g., socialization processes may be important here), or whether workers with a workaholic tendency actively seek an environment in which they can live up to this disposition. Again, this would seem a fruitful area for future research.

REFERENCES

- 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.
- BRETT, J. M., & STROH, L. K. (2003) Working 61 plus hours per week: why do managers do it? *Journal of Applied Psychology, 88*, 67-78.
- BURKE, R. J., & MACDERMID, G. (1999) Are workaholics job satisfied and successful in their careers? *Career Development International, 4*, 277-282.
- CENTRAAL BUREAU VOOR DE STATISTIEK. (2009) [Structure of the Dutch labour market]. Retrieved on May 5th, 2011, from <http://www.cbs.nl>. [in Dutch]
- CLARK, M. A., LELCHOOK, A. M., & TAYLOR, M. L. (2010) Beyond the Big Five: how narcissism, perfectionism, and dispositional affect relate to workaholism. *Personality and Individual Differences, 48*, 786-791.
- OATES, W. (1971) *Confessions of a workaholic*. New York: World.
- ROBINSON, B. E. (1999) The Work Addiction Risk Test: development of a tentative measure of workaholism. *Perceptual and Motor Skills, 88*, 199-210.
- SCHAUFELI, W. B., BAKKER, A. B., VAN DER HEIJDEN, F. M. M. A., & PRINS, J. T. (2009) Workaholism, burnout, and well-being among junior doctors: the mediating role of role conflict. *Work and Stress, 23*, 155-172.
- SCHAUFELI, W. B., SHIMAZU, A., & TARIS, T. W. (2009) Being driven to work exceptionally hard: the evaluation of a two-factor measure of workaholism in The Netherlands and Japan. *Cross-Cultural Research, 43*, 320-348.
- SCHAUFELI, W. B., TARIS, T. W., & BAKKER, A. B. (2008) It takes two to tango: workaholism is working excessively and working compulsively. In R. J. Burke & C. L. Cooper (Eds.), *The long work hours culture: causes, consequences, and choices*. Bingley, UK: Emerald. Pp. 203-226.
- SCHAUFELI, W. B., TARIS, T. W., & VAN RHENEN, W. (2008) Workaholism, burnout, and engagement: three of a kind or three different kinds of employee well-being. *Applied Psychology: an International Review, 57*, 173-203.
- SCHNEIDER, B., SMITH, D. B., & GOLDSTEIN, H. W. (2000) Attraction-selection-attrition: toward a person-environment psychology of organizations. In B. W. Walsh, K. H. Craik, & R. H. Price (Eds.), *Person-environment psychology: new directions and perspectives*. (2nd ed.) Mahwah, NJ: Erlbaum. Pp. 61-86.
- SCOTT, K. S., MOORE, K. S., & MICELI, M. P. (1997) An exploration of the meaning and consequences of workaholism: a conceptual integration and extension. *Journal of Organizational Behavior, 28*, 111-136.

- SHIMAZU, A., & SCHAUFELI, W. B. (2009) Is workaholism good or bad for employee well-being? The distinctiveness of workaholism and work engagement among Japanese employees. *Industrial Health*, 47, 495-502.
- 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.
- SPENCE, J. T., & ROBBINS, A. S. (1992) Workaholism: definition, measurement, and preliminary results. *Journal of Personality Assessment*, 58, 160-178.

Accepted March 6, 2012.