

All day and all of the night: The relative contribution of two dimensions of workaholism to well-being in self-employed workers

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This study examined the associations between workaholism and perceived health (exhaustion, physical complaints, and feelings of professional efficacy) in a sample of 477 Dutch self-employed workers. We defined workaholism as having two components: (1) spending many hours on one's work, and (2) the inability to detach from work. We expected that both workaholism components would be related to ill health. ANOVA and regression analyses revealed that this reasoning was confirmed for one component (inability to detach from work), whereas the other component (working long hours) was unrelated to the outcome variables. In order to increase understanding of these findings, we suggest that more theoretical work be conducted on the mechanisms linking workaholism to its presumed antecedents and consequences.

Keywords: Workaholism; self-employed; entrepreneurs; effort expenditure; well-being; burnout; working hours; work-related stress

Introduction

Research in the area of occupational health psychology has frequently demonstrated that workers who expend much effort on their work may come to experience serious health problems in time (Taris, Beckers, Dahlgren, Geurts, & Tucker, in press; Van der Hulst, 2003, for reviews). Although high effort expenditure may be due to specific circumstances at work, personal characteristics may also play an important role in individuals' effort expenditure (e.g., Ng, Sorensen, & Feldman, 2007). Indeed, high effort expenditure is a central characteristic of the workaholic syndrome. The latter is usually defined in terms of (1) a behavioural component, i.e., by working a high number of hours (working excessively hard) and (2) a personal/dispositional/psychological component, i.e., being unable to detach from work (working compulsively; workaholics are obsessed by their work) (McMillan & O'Driscoll, 2006; Ng et al., 2007; Oates, 1971; Scott, Moore, & Miceli, 1997; Taris, Schaufeli, & Verhoeven, 2004), sometimes along with other characteristics such as experiencing little work enjoyment (Spence & Robbins, 1992).

As workaholics tend to expend much time and effort on their work, one would expect that they enjoy poorer mental and physical health than non-workaholics. However, empirical data on this issue are scant and contradictory (McMillan & O'Driscoll, 2004). Further, given that

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workaholism is a *syndrome* of working long hours while being unable to detach from work, one may ask which of these two components is dominant as regards health and well-being: is it the actual expenditure of effort (i.e., the number of hours worked), is it the fact that effort expenditure is felt to be compulsory, or are both facets about equally important? The present study was designed to deal with these issues. Using data from a sample of 477 Dutch self-employed workers who responded to a quality-of-work survey, we address the relationships among workaholism indicators and health. By examining these relations among self-employed individuals, we may be able to get a better indication of these than by using samples of employed workers, in that members of the first group will largely decide for themselves how much time and effort they expend on their work. As such, it would seem likely that the variance in workaholic syndrome is relatively large among entrepreneurs.

The workaholic syndrome

The term *workaholism* has been part of our everyday vocabulary since it was coined by Oates (1971). However, no single definition or conceptualization of this phenomenon has emerged. As Burke and Matthiesen (2004) note, some researchers consider workaholics as hyper-performers (Korn, Pratt, & Lambrou, 1987; Peiperl & Jones, 2001), whereas others regard them as obsessive and unhappy individuals who are not performing well in their jobs and have difficulties with their colleagues (Flowers & Robinson, 2002; Oates, 1971; Porter, 2001; Schaufeli, Taris, & Bakker, 2006). Yet others distinguish among positive and negative forms of workaholism. For instance, Scott et al. (1997) identified compulsive-dependent, perfectionist, and achievement-oriented workaholics. The most widely empirically studied approach to workaholism proposes three underlying dimensions (work involvement, “drive,” and work enjoyment, respectively; Spence & Robbins, 1992), the combination of which produces no less than three different types of workaholics, none of which is identical to any of the three workaholism types distinguished by Scott et al. (1997). Of course, it is difficult to compare findings obtained in studies using such diverging conceptualizations of workaholism, which may be one reason for the fact that findings on the antecedents and consequences of workaholism do not always mesh well with each other.

For the sake of conceptual clarity, in the present study we follow Porter’s (1996) recommendation to return to the origin of the term as a starting point for future research, i.e., an addiction to work characterized by excessive and persistent work behaviour with harmful consequences (Oates, 1971). In their literature review, Scott et al. (1997) distinguish among three central characteristics of workaholism. First, workaholics “. . . spend a great deal of time in work activities when given the discretion to do so” (p. 292). This agrees with Oates’ (1971) definition of workaholism as “the uncontrollable need to work incessantly” (p. 1). Second, workaholics persistently and frequently think about work when they are not working; it is a “. . . *reluctance to disengage from work* that is evidenced by the tendency to [. . .] think about work in any circumstances” (McMillan, O’Driscoll, Marsh, & Brady, 2001, p. 89; our italics). Finally, workaholics work beyond what is reasonably expected from them to meet organizational or economic requirements. This may be considered a specification of the first two characteristics, because it deals with the *motivation* for spending an excessive amount of time on work. Workaholics spend more time on working than others out of an inner compulsion, rather than because of external factors. Workaholism may thus be defined as an individual’s steady and considerable allocation of time to work-related activities and thoughts, that does not derive from external necessities (Ng et al., 2007; Snir & Harpaz, 2004; Taris et al., 2004, for a similar conceptualization).

Workaholism, effort expenditure, and health

High effort expenditure has often been linked to the presence of high levels of stress and health problems (e.g., De Croon, Sluiter, & Frings-Dresen, 2003; Taris et al., 2007; Van Amelsfoort, Kant, Bültmann, & Swaen, 2003). Theoretically, this association can be understood as the result of a chronic imbalance between the effort invested in the job and one's opportunities for recovery (Meijman & Mulder, 1998; Van der Hulst & Geurts, 2001). Physiologically, chronic high effort expenditure without sufficient recovery results in "wear and tear on the body and brain" (McEwen, 1998, p. 37). According to McEwen, overstimulation of the physiological systems that are normally involved in the adaptation to environmental challenges (e.g., high work load) affects the neural, neuroendocrine, and immune systems, leading to physical and psychological malfunctions (such as cardiovascular complaints and depression; see Sun, Wang, Zhang, & Li, 2007, for a recent study).

If this is correct, it would seem likely that workaholics constitute a high-risk group for ill health (Kanai, 2006). High effort expenditure is a central characteristic of workaholism, both in terms of the number of hours worked (simultaneously increasing effort expenditure and limiting the opportunities for recovery) and the fact that they are reluctant to disengage psychologically from their work. The latter aspect of workaholism also suggests that negative load effects that have built up at work will not dissipate immediately after respite from work, but instead last during evening hours (e.g., because workaholics have difficulty relaxing) due to a slow process of unwinding (Ursin, 1980). In such cases, a downward spiral may be activated: as workaholics may not be fully recovered from their previous work day (cf. Taris et al., 2004), they must invest additional (compensatory) effort to perform adequately during the next working period, resulting in an increased intensity of negative load reactions that appeal even more strongly to the process of recovery (Taris, Beckers, Verhoeven, Geurts, Kompier, & Van der Linden, 2006). Thus, the workaholic syndrome is a double-edged sword; the high number of hours spent on work means that workaholics expend much effort and have limited opportunities for recovery, while the fact that they are unable to disengage from work psychologically means that they have difficulty unwinding even when they are off-duty. Thus, both workaholism components may be linked to ill health, and they may even reinforce each other's effects.

In practice, things are more complex. Although a small body of research has addressed the associations between workaholism and lack of well-being, the results obtained are inconclusive. Consistent with the idea that high effort expenditure is potentially harmful, Burke (2000) reported that the workaholics among his sample of 530 male and female managers experienced relatively high levels of psychosomatic complaints and low levels of physical and emotional well-being. This result was partly confirmed by Burke and Matthiesen (2004), who found among a sample of 211 Norwegian journalists that those qualifying as "work addicts" experienced high levels of exhaustion and cynicism (the two central components of the burnout syndrome; Schaufeli & Taris, 2005). Burke and Matthiesen (2004) did *not* find an association between workaholism and sickness absence, although this could be due to workaholics' reluctance to take sick days, even when they are ill. Also inconsistent with the hypothesis that workaholism is associated with low well-being was Snir and Harpaz's (2004) finding that the workaholics in their sample of 942 Israeli workers were *more* satisfied than others. Finally, McMillan and O'Driscoll (2004) found hardly any differences between workaholics and non-workaholics regarding their health status, and concluded that "... workaholism may be less toxic to personal health and well-being than at first thought" (p. 509).

Evidence for the assumption that workaholism leads to adverse health outcomes is weak. One possible explanation for these diverging findings is that authors differ as regards the way they conceptualize and measure workaholism. For example, whereas many researchers (e.g., Burke & Matthiesen, 2004) take Spence and Robbins' (1992) workaholic triad as their point of departure for measuring workaholism (thus focusing on compulsion-related concepts, such as excessive work commitment and drive), others concentrate on the amount of effort expended (usually the number of hours worked, e.g., Snir & Harpaz, 2004). Although both approaches to measuring workaholism tap central aspects of this concept as defined by Scott et al. (1997), neither covers this concept fully. Approaches that focus exclusively on effort expenditure (e.g., by concentrating on the number of hours worked) overlook the fact that workaholics are unable to detach from work (compare Sonnentag & Fritz, 2007). Conversely, approaches focusing on drive and excessive commitment largely ignore the fact that workaholics are major effort expenders by working long hours. As argued earlier, the workaholic syndrome comprises *both* components, and focusing on only one of these increases the risk that findings do not generalize across other measures of workaholism.

The present study

Building on the work of Porter (1996) and Scott et al. (1997), the present study conceptualizes workaholism as a syndrome of the number of hours spent on work, and an inability to detach oneself psychologically from one's work. Although both components can be linked to effort expenditure and subsequent recovery, this does not imply that they are equally strong predictors of health status, or that the combination of these two components necessarily yields the strongest effects on health. The primary aim of the present study was therefore to examine relationships between the two workaholism components and well-being (as measured in terms of fatigue/exhaustion, physical complaints, and professional efficacy). In doing so we distinguish between the effects of the two workaholism components, i.e., effort expenditure (the number of hours worked) and the inability to detach from work. Based on previous theorizing, we expect that high scores on inability to detach from work (Hypothesis 1a) and the number of hours worked (Hypothesis 1b) will be related to poor well-being. Further, we expect that the presence of both of the workaholism components leads to relatively lower levels of well-being than would be expected on the basis of their main effects only. That is, the adverse effects of long working hours on well-being will be even stronger when the participants are unable to detach from work (Hypothesis 2).

In examining the relationships between the two workaholism components and well-being we must take into account that the self-employed workers in our sample differ as regards their work situation. Consequently, we must control for salient aspects of their work. Building on the work of Karasek and Theorell (1990), we distinguished two such aspects: job demands and job control. Both work characteristics are associated with worker well-being, such that high demands and low control lead to adverse work outcomes (De Lange, Taris, Kompier, Houtman, & Bongers, 2003, for a review). The inclusion of job demands seems important here, since it would appear that workaholics will experience high job demands. Machlowitz (1980) reported that workaholics may create even more work for themselves by making simple projects more complicated than necessary, or by causing crises for the pleasure of working on the problems resulting from these. Empirically, the link between workaholism and high job demands has been demonstrated frequently (e.g., Taris et al., 2004). Thus, inclusion of work characteristics (especially job demands as a form of effort expenditure) may contribute to our understanding of how workaholism relates to well-being, in that controlling

for these work characteristics will allow us to examine the predictive value of the two workaholism dimensions for worker well-being, *beyond* what is already accounted for by these characteristics. Specifically, we expect that high demands (Hypothesis 3) and low control (Hypothesis 4) are associated with adverse well-being.

Method

Participants

The study was conducted on Dutch self-employed workers. At the time of the study, self-employed persons in the Netherlands were obliged by law to insure themselves against the risk of work disability. Our sample was drawn from the files of a Dutch company that provides insurance against work disability; this company is the second largest business in this field, having a market share of about 11%. All participants in the target sample ($N = 1,917$) received a structured questionnaire, addressing topics such as work circumstances and health. After sending two reminders to all persons in the target sample, 491 usable questionnaires were returned (25.8% response rate). After listwise deletion of incidental missing values on the variables of interest, the study included 477 self-employed workers (82% male; $M_{\text{age}} = 42.8$ years, $SD = 8.9$; 29% held a college or university degree; 83% were either married or living together; 86% had at least one child living with them at home). As regards their businesses, on average the participants had started their enterprise 23.4 years ago ($SD = 25.6$); they worked for on average 58.27 ($SD = 14.50$) hours per week; 39% had no people working for them; 14% had a single employee, whereas the remaining 47% had at least two employees. The participants had various types of occupation. Comparison with population figures on the percentages of self-employed working in these occupations revealed no statistically significant differences with our sample, chi-square ($df = 10$, $N = 477$) was 8.7, $p > .50$.

Measures

Workaholism

Consistent with our definition of workaholism as a phenomenon characterized by working long hours and being unable to detach from one's work, workaholism was measured as a combination of (1) the average number of hours worked during the week, measured using a simple open question, and (2) the degree to which the participants were unable to detach from their work. The latter concept was measured using the inability to withdraw from work-scale from Siegrist et al.'s (2004) overcommitment scale, which is part of their effort-reward imbalance questionnaire. In its original form, the inability to withdraw from work subscale includes six items. However, scale analysis revealed poor scalability for the item "I get easily overwhelmed by time pressures at work," possibly because this item taps aspects of concepts like job demands and stress vulnerability as well. The final scale that we used comprised five items, including "work rarely lets me go, it is still on my mind when I go to bed" (1 = disagree completely, 4 = agree completely, $\alpha = .77$).

Job characteristics

A 4-item scale tapped the participants' job demands (Van Veldhoven & Meijman, 1994), e.g., "my work requires that I work very fast" (1 = disagree completely, 4 = agree completely, $\alpha = .67$). Job control was measured by a 3-item scale from the same instrument, e.g., "My job gives me the opportunity to make my own decisions," $\alpha = .63$.

Well-being

Three scales tapped the psychosocial well-being of the participants. First, *exhaustion* was measured using a 5-item scale from the Maslach Burnout Inventory General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996). This scale taps the degree to which people report feelings of severe work-related fatigue and exhaustion, e.g., “working all day is really a strain on me” (0 = never, 6 = always, $\alpha = .80$). A validated, often-used Dutch 13-item scale tapped the degree to which the participants suffered from *psychosomatic health complaints* (Dirken, 1969; Martens, Nijhuis, Van Boxtel, & Knottnerus, 1999). This scale included 13 complaints (e.g., headaches, stomach aches) for which the participants had to indicate whether they had been suffering from these over the last 12 months (1 = no, 2 = yes, $\alpha = .79$). The third scale tapped a positive aspect, the participant’s level of professional efficacy, i.e., the 6-item professional efficacy scale of the MBI-GS (Schaufeli et al., 1996). A typical item is “I have accomplished many worthwhile things in this job” (0 = never, 6 = always, $\alpha = .78$).

Biographical variables

Finally, the present study included measures of participant *gender*, *age*, *education* (7 categories), and the *number of years of experience* as a self-employed worker.

Statistical analysis

Table 1 presents the intercorrelations among the study variables. Hierarchical regression analyses were performed to examine the impact of the two workaholism components on the three outcome variables, after controlling several blocks of other variables. The first block that was entered into the analysis included gender, age, years of experience as a self-employed worker, and level of education. The second block included our measures of job demands and job control. The third block contained the two workaholism components, namely the number of hours spent on work and the inability to detach from work. The fourth block included the inability to detach from work \times number of working hours interaction effect. This interaction was computed after standardizing the respective raw variables (Aiken & West, 1996).

Results

Table 2 presents the results of three hierarchical regression analyses, one for each of our three measures of well-being. The pattern of results is very similar for exhaustion and physical complaints. In both cases, the block of control variables did not account for a significant proportion of the variance in the outcome variables. Conversely, addition of those two work characteristics accounted for an additional 7% (for physical complaints) to 9% (for exhaustion) of the variance in these outcomes. In both cases, participants reporting high job demands were more likely to report high levels of exhaustion and physical complaints (standardized betas were .27 for exhaustion and .23 for complaints, Hypothesis 3 supported). Control was weakly associated with these outcomes; in both cases, we found that high control was associated with low levels of exhaustion and physical complaints (beta was $-.15$ in both cases, Hypothesis 4 supported).

Table 1. Means, standard deviations and correlations among the study variables.

Variables	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Exhaustion	1.45	1.08	1.00										
(2) Physical complaints	1.81	.18	.59	1.00									
(3) Professional efficacy	4.60	.95	-.14	-.13	1.00								
(4) Gender (0 = female, 1 = male)	.82	.38	-.02	.01	.05	1.00							
(5) Age	42.81	8.98	-.04	.00	.17	.12	1.00						
(6) Level of education	3.95	1.66	-.05	-.08	.08	.00	-.03	1.00					
(7) Years of experience as self-employed	23.39	25.63	.05	.09	-.01	-.06	.00	-.01	1.00				
(8) Job demands	2.80	.47	.25	.21	.03	.05	.00	-.01	.05	1.00			
(9) Job control	3.35	.45	-.12	-.12	.22	.03	.05	.12	.01	.03	1.00		
(10) Inability to detach from work	2.23	.35	.34	.36	-.19	.00	-.05	-.11	.03	.19	-.07	1.00	
(11) Number of hours worked	58.27	14.50	.09	.09	.08	.38	-.04	-.14	.05	.33	.07	.09	1.00

Note: Correlations of .09 and higher are significant at $p < .05$.

In the third step, the two workaholism components were added. This block of variables explained a statistically significant proportion of the variance of both variables. However, inspection of Table 2 shows that this increase is solely due to the inability to detach from work. Whereas the number of hours worked was unrelated to both exhaustion and physical complaints, participants reporting being unable to detach reported high levels of exhaustion and physical complaints (betas were .32 for exhaustion and .37 of physical complaints, Hypothesis 1a supported, Hypothesis 1b rejected). Finally, the interaction of the two workaholism components did not add significantly to the prediction of the two outcome variables (Hypothesis 2 rejected).

These results suggest that it is the inability to detach from work that matters, and not the number of hours worked per se. This impression is confirmed for our positive outcome variable, professional efficacy. In the first step the background variables were added, showing that older participants reported higher levels of efficacy than others (a standardized effect of .18, $p < .001$). Job demands were largely irrelevant as a predictor of professional efficacy, but those stating that they experienced high levels of job control reported high levels of efficacy as well (beta is .21, $p < .001$; Hypothesis 3 rejected, Hypothesis 4 supported). The two workaholism components were added to the model in the third step, showing that the inability to detach from work was the best predictor of this outcome variable; those feeling unable to detach from work reported lower levels of efficacy than others (an effect of $-.15$, $p < .01$). The number of hours worked was irrelevant in predicting levels of professional efficacy (Hypothesis 1a supported, Hypothesis 1b rejected), as was the interaction of the number of hours worked \times inability to detach from work that was added in the fourth step (Hypothesis 2 rejected).

Table 2. Results of three hierarchical regression analyses with well-being indicators as outcome variables.

Variables	Exhaustion	Physical complaints	Professional efficacy
Step 1			
Gender (0 = female, 1 = male)	-.05	.01	.07
Age	-.05	-.01	.18***
Years of experience	.05	.10*	-.02
Level of education	-.03	-.05	.08
R^2_{change}	.03	.02	.05**
Step 2			
Job demands	.27***	.23***	.02
Job control	-.15**	-.15**	.21***
R^2_{change}	.09***	.07***	.04***
Step 3			
Inability to detach from work	.32***	.37***	-.15**
Number of hours worked	.04	.03	.09
R^2_{change}	.10***	.13***	.03**
Step 4			
Inability to detach from work × number of hours worked	.04	.03	-.05
R^2_{change}	.00	.00	.00
R^2	.21***	.22***	.12***

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

Discussion

This study addressed questions concerning the relationship between workaholism and health. Drawing on data from 477 Dutch self-employed workers, we found that especially the inability to detach from work (i.e., the *psychological* component of the workaholic syndrome) was a potent predictor of health and well-being. The self-employed individuals who found it difficult to detach from work experienced higher levels of exhaustion and physical complaints and lower levels of efficacy than others did. In contrast to the literature on the detrimental effects of long working hours (e.g., Van der Hulst, 2003), the *behavioural* component of this syndrome (actual effort expenditure in the form of working long hours) was not significantly related to well-being. One explanation for the lack of effects of long working hours is that the self-employed in our sample possessed high levels of objective job control, meaning that they could decide for themselves (1) when they took a break and (2) what they had to do. Self-employed workers may recover from their tasks not only after work, but also during their work, e.g., by alternating strenuous tasks with things they consider more pleasurable, or by taking a break when feeling fatigued (Taris et al., 2006). Further, the self-employed in our sample could decide for themselves whether to take on a particular assignment, meaning that they might have been able to single out the most interesting and challenging tasks. That is, whereas our participants mostly worked long hours, their work may have been much more interesting and pleasurable than that of the average employee, possibly mitigating the adverse effects of long working hours.

This reasoning may also account for the absence of an interaction between the number of working hours and inability to detach from work. We expected that the adverse effects of working long working hours on well-being would be stronger when the participants were psychologically unable to detach from work. However, if working long hours is unrelated to health (e.g., because entrepreneurs possess sufficient control over their work and their lives to

prevent adverse effects from occurring, or because their work is very pleasurable and not stressful), this effect cannot be moderated by the inability to detach from work either. Note that previous research on the effects of long working hours has not usually taken the quality of employment into account, meaning that these interpretations are at present still speculation.

The central role of the psychological component of the workaholism syndrome is further underlined by the fact that the inability to detach from work added significantly to the explanation of the three indicators of well-being *after* controlling for job demands (see Table 2; similar findings were reported by Preckel, Meinel, Kudielka, Haug, & Fischer, 2007; Taris et al., 2004, Study 3). Thus, the effects of the psychological component of workaholism on well-being are independent of the effects of experiencing high job demands, a concept that may be presumed to coincide with a high inability to detach from work.

Study limitations

In order to appreciate our findings fully, readers must be aware of the limitations of the present study. One shortcoming of this research was that it was based on a cross-sectional self-report design. Importantly, cross-sectional designs are ill-suited to the study of causal processes and, although it is not immediately clear how the principal outcomes in our study (three indicators of well-being) could be a cause of either workaholic behaviour or a workaholic psychological tendency, we cannot exclude the possibility that the “effects” proposed in this study should be reversed or are due to third variables. This issue can only be resolved by using a longitudinal design.

The self-report nature of the study implies that the associations among the variables may be inflated to common method variance, most notably negative affect (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To address this concern, we reran our regression analyses after controlling for negative affect (Watson, Clark, & Tellegen, 1988). Comparison of these results (available from the first author) with the findings reported here revealed that the effects of the job characteristics and workaholism components on the three well-being indicators were mostly still significant and in the expected direction. Thus, our conclusions regarding the associations among workaholism and well-being would not change.

A further limitation derives from the relatively low response rate in this study (27%). Although this is within the range of normal response rates typically found for top management and organizational representatives in research in the behavioural and management sciences (average response rate 36.1%, $SD = 13.3\%$, for studies published in 1995; Baruch, 1999), it does call for an explanation. The self-employed are notoriously busy (as evidenced by the high number of hours worked by the present sample), meaning that they have little time for issues that do not yield a clear return. Thus, completing questionnaires would probably not rank among their highest priorities. This was also indicated by some participants in our initial sample, who informed us why they did not want to participate in our study. Thus, our sample may not be entirely representative of the target population, in that extremely busy self-employed will be underrepresented. This, in turn, might have led to an underestimation of the associations among the study variables (especially those involving the number of hours worked) due to restriction of range-effects. However, our sample still spent much time on work (on average 8.3 hours, $SD = 14.5$), which is virtually equal to what is reported by the entrepreneurs in the samples of Parasuraman, Purohit, Godshalk, and Beutell (1996) and Parasuraman and Simmers (2003), and the managers in Brett and Stroh's

(2003) study. Thus, our low response rate may not have strongly biased our findings regarding the number of hours worked.

Finally, people may work long hours for a variety of reasons, and not only because they are workaholics (Schaufeli et al., 2006, for a discussion). This implies that working long hours is a relatively weak variable, being the result of many different processes and tendencies (e.g., high levels of motivation and work pleasure, or having demanding customers may also lead to a high number of hours worked). This is also the reason why modern definitions of workaholism often include a measure of the psychological processes associated with workaholism (in our case, we tapped the inability to detach from work as a second symptom of workaholism). The upshot of this reasoning is that it is *a priori* likely that working long hours is only weakly related to other concepts, as working long hours may represent many different (and perhaps opposing) processes. Having said that, it is difficult to think of a measure that better catches the essence of the behavioural component of workaholism.

Study implications

Although the limitations discussed above are important, we believe that the present research contributes to our knowledge of workaholism in several respects. First, our study showed that workaholism and well-being are related, supporting earlier findings that workaholics are less healthy than others (e.g., Burke, 2000; Burke & Matthiesen, 2004). Second, our findings suggested that it is not the actual number of hours spent on work that is the primary cause of ill health, but rather the fact that one is unable to detach from work. Conceptually, these findings suggest that it may be worthwhile to put more effort in examining how the two workaholism components are related, both to each other and to other concepts. Although workaholism researchers have been very successful in detecting correlates of the syndrome, the precise processes that account for these associations are still unclear. In order to take a next step forward, it seems necessary that conceptually rich theoretical models be developed that link workaholism to well-being, rather than to focus on the simple bi-directional associations that have been abundant in past workaholism research (Ng et al., 2007; Taris et al., 2004).

A third implication concerns the conceptualization and measurement of workaholism. Based on Porter (1996) and Scott et al. (1997), we conceptualized workaholism as having both a psychological component (thinking incessantly about one's work, being unable to detach from it) and a behavioural component (i.e., working long hours). Supporting approaches that focus on dispositions or tendencies only (e.g., Spence & Robbins', 1992, workaholic triad), our findings showed that actual effort expenditure was irrelevant for well-being. Further, the correlation between the number of hours worked and inability to detach from work was only .09 ($p < .05$, see Table 1). Both findings beg the question whether the behavioural component is really indispensable for measuring workaholism. We believe that such a stance would miss the very essence of the workaholic syndrome. Like an alcoholic who does not drink, a workaholic who does not work excessively hard is a contradiction in terms. We argue that the psychological component of workaholism is just that: a *tendency* towards becoming a workaholic, not the workaholism concept itself. This implies that workers may possess the workaholic tendency without actually becoming a workaholic, e.g., because environmental characteristics prevent this disposition from manifesting itself. Thus, both aspects need to be present to speak of workaholism: the inability to detach from work as well as the corresponding behaviour.

From a practical point of view, the present study suggests that the number of hours worked is only weakly related to health and well-being, at least among self-employed workers. Conversely, we found that the inability to detach from work-component of workaholism was significantly associated with well-being. In a sense, the weak link between behaviour (number of hours worked) and outcome (ill health) is unfortunate, in that practitioners cannot use working many hours as a simple indicator of risky work behaviour: as Burke (2006) argued, it is not how hard you work, but rather how you work hard. Rather, it appears that the inability to detach from work is a risk factor. That is, whereas workaholics have an elevated risk for ill health, those who do not work as hard but who hold the same compulsive attitude towards work may well have a similar risk regarding health complaints.

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