



Work intensity, work hours, satisfactions, and psychological well-being among Egyptian managers

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Abstract

Purpose – The purpose of this paper is to examine the relationship of measures of work intensity and work hours on potential antecedents and work and well-being consequences.

Design/methodology/approach – Data are collected from 242 male and female managers and professionals working in a variety of organizations in Egypt using anonymously completed questionnaires, with a 48 percent response rate.

Findings – Work intensity is significantly correlated with work hours, but weakly. Work hours and work intensity share only one common personal demographic and work situation predictor (level of education) but it has opposite relationships with the work hours and work intensity measures. Work hours and work intensity also share one common stable personality predictor, non-required work, and a workaholic job behavior. This measure however likely reflects the requirements of managerial jobs more than the addictive and negative aspects of workaholism. Work intensity is more strongly and consistently related to both work and well-being outcomes. Interestingly, work intensity is positively related to work outcomes and negatively related to indicators of psychological well-being.

Research limitations/implications – The sample is likely non-representative of Egyptian managers and data are collected at one point in time making it difficult to determine causality.

Practical implications – The results suggest that work intensity may be more important than work hours as factors in employee work experiences.

Originality/value – The paper fills a gap in understanding of human resource management practices and experiences in Egypt.

Keywords Hours of work, Working patterns, Employee behaviour, Managers, Egypt

Paper type Research paper

Issues related to work, including long work hours and work intensity, have been attracting increasing attention for both researchers and practitioners (Bell and Freeman, 2001; Burchell and Fagan, 2004; Burke, 2006; Burke and Cooper, 2008; Dembe *et al.*, 2005; Eastman, 1998; Filer *et al.*, 1996; Green, 2001, 2008; Feldman, 2002; Ng *et al.*, 2007; Hochschild, 1997; Schor, 1991; Sparks *et al.*, 1997; van der Hulst, 2003). Overwork

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may have negative consequences for employees, their families, organizations, and society (Burke and Cooper, 2008; Dembe *et al.*, 2005; Feldman, 2002; Sparks *et al.*, 1997; van der Hulst, 2003).

But there is also emerging evidence that some individuals working long hours may be thriving. In a *Harvard Business Review* article, Hewlett and Luce (2006) reported on a growing trend for employees to be working 70 hour work weeks and its potential effects. Hewlett and Luce (2006) found that their sample of high-level executives were extremely satisfied with their jobs, satisfaction coming from the rewards, meaning, and challenge inherent in their high-level positions. Some however worried about the effects of long hours on their health and family relationships and some indicated they had planned to reduce their work hours a small amount. An earlier US study of MBA alumni of a prestigious business school also found high levels of satisfaction among women and men working 61 hours a week or more (Brett and Stroh, 2003). Thus, the relationship of working hours and individual satisfaction and well-being has produced some conflicting results.

Work hours and work intensity

Working hard can be thought of as having a time component (e.g. hours worked) and an intensity component (e.g. how intense is the effort during the time worked). Work has traditionally been viewed as the amount of ours a person spends on the job. Work intensity, on the other hand is a concept that only recently has received research attention. Work intensity is sometimes viewed as an effort-related activity. In this regard, it is similar to the “work effort” concept discussed in the economics literature. Green (2001, p. 56) described work effort as:

[...] the rate of physical and/or mental input to work tasks performed during the working day
[...] in part, effort is inversely linked to the “porosity” of the working day, meaning those gaps between tasks during which the body or mind rests.

Burchell and Fagan (2004) used “speed of work” to capture work intensity, and reported that Europeans were working more intensely in 2001 compared to 1991. Green (2001) focused on “effort change” in which respondents were asked to compare their current jobs with those they held five years earlier.

Research on work hours and work intensity

Almost all of the research on work hours and work intensity has been conducted in North America, the UK, and Japan, developed countries noted for long work hours. Other European countries (e.g. France, Italy, and Germany) are developed but employees in these countries work fewer hours and seem to enjoy a more balanced life (Rifkin, 2004). Egypt is a developing country in transition to an industrial and service-based economy. Unfortunately, we found no studies of the effects of work hours or work intensity in Egypt or in most developing countries. There is some speculation, however, that low skilled workers in many developing countries (e.g. India, China, and Peru) work very long hours but no research has been conducted in these countries on the effects of long work hours.

The present study, building on our previous work, reports on the relationship of both work intensity and work hours, with a range of potential antecedents and work and well-being consequences. It was hypothesized that work intensity and work hours would be positively and significantly correlated but weakly. In addition it was expected

that some gender differences in both work hours and work intensity would be present reflecting the generally higher organizational levels of male managers. Stable personality factors reflecting work investment and involvement would be positively correlated with both work hours and work intensity perceptions. Managers reporting higher levels of work intensity would be more work satisfied and indicate lower levels of psychological well-being. It was further hypothesized that individuals working more hours would be less satisfied and indicated lower levels of psychological well-being. But the effects of work intensity would be stronger and more consistent than those of work hours.

Method

Procedure

Data were collected between October 2008 and January 2009 from service and manufacturing organizations in two Egyptian cities (Alexandria and Cairo). Members of the research team contacted about 50 organizations in these cities requesting their participation in the research. The 24 cooperating organizations then provided a list of managers and professionals to the researchers. Service organizations included telecommunications, banks, educational institutions, and a maritime service provider. Manufacturing organizations included pharmaceutical, petroleum companies, and production companies focusing upon production of milk, juice, and food. Approximately, 500 managers and professionals were contacted; of which 242 provided completed questionnaires, a 48 percent response rate. Questionnaires were completed anonymously in English. The respondents are best described as a large convenience sample of Egyptian managers and professionals in a variety of industries.

Respondents

Table I presents the demographic characteristics of the sample. Over half were male (60 percent), almost all worked full-time (93 percent), over half were 30 years of age or younger (61 percent), most were single (62 percent), without children (64 percent), were university graduates (95 percent), worked 40 hours a week or less (42 percent), were in middle management (33 percent), supervised others (66 percent), earned over LE 25,000 a year of income (46 percent), had relatively short job and organizational tenures (over half having two years or less job tenure – 60 percent and over one-third having two years or less of organizational tenure – 37 percent), and worked in organizations of varying sizes, the average being about 1,000 employees. Respondents fell into several functions: IT and logistics, 16 percent; marketing and sales, 14 percent; finance, 13 percent; production, 11 percent; and customer service, 9 percent.

Measures

Job demands. Two job demands, work hours and work intensity, were considered.

Work hours. It was measured by a single item. Respondents indicated how many hours they worked in a typical week.

Work intensity. It was assessed by a 15 item scale ($\alpha = 0.74$). Some items were taken from Hewlett and Luce (2006), while other items were developed by the researchers. Items included “an unpredictable flow of work,” “availability to clients 24/7,” and “a large scope of responsibility that amounts to more than one job.”

	<i>N</i>	%	Work intensity and work hours
<i>Gender</i>			
Male	146	60.3	
Female	96	39.7	
<i>Work status</i>			
Full time	226	93.4	221
Part time	16	6.6	
<i>Marital status</i>			
Married	92	38.0	
Single	150	62.0	
<i>Parental status</i>			
Children	86	35.5	
No children	156	64.5	
<i>Education</i>			
High school	12	5.0	
Bachelors	185	80.6	
Masters	35	14.4	
<i>Hours worked</i>			
40 or less	102	42.1	
41-45	51	21.1	
46-50	49	20.7	
51-55	7	2.9	
56-60	20	8.2	
61 or more	12	5.0	
<i>Organizational level</i>			
Non-management	70	28.9	
Lower management	56	23.1	
Middle management	80	33.1	
Senior management	36	14.9	
<i>Organizational tenure</i>			
1-2 years	90	37.2	
3-5	55	22.7	
6-10	56	23.2	
11 or more	41	16.9	
<i>Organizational size</i>			
250 or less	59	20.2	
251-500	36	14.9	
501-1,000	47	19.4	
1,001-2,000	34	14.1	
2,001-5,000	70	28.9	
5,001 or more	6	2.5	
<i>Age</i>			
25 or less	73	30.2	
26-30	74	30.5	
31-35	29	12.0	
36-40	13	5.4	
41-45	13	5.4	
46 or older	40	16.5	
<i>Length of marriage</i>			
1-5 years	36	40.0	
6-10	13	14.4	

Table I.
Demographic
characteristics of sample
(continued)

EBS 2,3		N	%
	11-15	7	7.8
	16-20	19	21.1
	21-25	17	18.9
	26 or more	4	4.4
222	<i>Number of children</i>		
	0	155	64.0
	1	27	11.2
	2	44	18.2
	3 or more	16	6.6
	<i>Income – LE\$</i>		
	\$10,000 or less	62	25.6
	\$10,001-\$15,000	16	6.6
	\$15,001-\$20,000	22	9.1
	\$20,001-\$25,000	30	12.4
	\$25,001 or more	112	46.3
	<i>Supervisory duties</i>		
	Yes	161	66.5
	No	81	33.5
	<i>Job tenure</i>		
	1-2 years	145	59.9
	3-5	51	21.1
	6-10	43	17.8
	11 or more	3	1.2
	<i>Function</i>		
	Finance	32	13.2
	Production	26	10.7
	IT	23	9.5
	Customer service	22	8.1
	Marketing	18	7.4
	Sales	17	7.0
	Logistics	17	7.0

Table I.

Personal demographic and work situation characteristics. A number of personal demographics (e.g. age, gender, level of education, marital, and parental status) and work situation characteristics (e.g. organizational level, job, and organizational tenure) were measured by single items (Table I).

Stable individual difference personality characteristics. Three stable individual difference personality characteristics were included.

Need for achievement (NAch) was measured by a five item scale ($\alpha = 0.62$) developed by Steers and Braunstein (1976). One item was “I try very hard to improve on my past performance at work.”

Workaholic behaviors. Two workaholic behavior scales developed by Mudrack (2006) were included. One, non-required work, had four items ($\alpha = 0.82$). An item was “Thinking of ways to improve the quality of work provided to customers and/or co-workers.” The other, control others, also had four items ($\alpha = 0.74$). One item was “fixing problems created by other people.”

Work and well-being outcomes. A wide range of outcome variables were included in this study covering both work and extra-work domains. These variables were

consistent with those typically used in studies of work and well-being more generally (Barling *et al.*, 2005; Schabracq *et al.*, 2003).

Work outcomes. Four work outcomes were included:

- (1) Job satisfaction was measured by a seven item scale ($\alpha = 0.80$) developed by Kofodimos (1993). An item was “I feel challenged by my work.”
- (2) Career satisfaction was assessed by a five item scale ($\alpha = 0.88$) created by Greenhaus *et al.* (1990). One item was “I feel satisfied with the progress I have made in my career to date.”
- (3) Job stress was measured by a nine item scale ($\alpha = 0.59$) developed by Spence and Robbins (1992). One item was “Sometimes I feel like my work is going to overwhelm me.”
- (4) Intent to quit was measured by two items ($\alpha = 0.84$) used previously by Burke (1991). One item was Are you currently looking for a different job in a different organization? (Yes/no).

Work engagement. Three aspects of work engagement were assessed using scales developed by Schaufeli *et al.* (2002). These were:

- (1) Dedication was assessed by five items ($\alpha = 0.88$). One item was “I am proud of the work that I do.”
- (2) Vigor was measured by six items ($\alpha = 0.72$). An item was “at my work I feel bursting with energy.”
- (3) Absorption was measured by six items ($\alpha = 0.74$). One item was “I am immersed in my work.” Respondents indicated their agreement with each item on a five-point Likert scale (1 = strongly disagree, 3 = neither agree nor disagree, 5 = strongly agree).

Psychological well-being. Three aspects of psychological well-being were considered:

- (1) *Exhaustion.* It was measured by a nine item scale ($\alpha = 0.74$), part of the Maslach Burnout Inventory, developed by Maslach *et al.* (1996). An item was “I feel emotionally drained from my work.”
- (2) *Work-family conflict.* Three aspects of work-family conflict were assessed using scales developed by Carlson *et al.* (2000). Each had three items and measures time-, strain-, and behavior-based work-family conflict. The respective reliabilities for these were 0.92, 0.60, and 0.645. These three scales were combined into a composite score since they were significantly and positively inter-correlated ($\alpha = 0.83$). One item was “The stress from my job often makes me irritable when I get home.”
- (3) *Psychosomatic symptoms.* It was measured by a 19 item scale ($\alpha = 0.85$) developed by Quinn and Shepard (1974). Respondents indicated how frequently they had experienced each physical symptom (e.g. headaches and difficulty sleeping) in the past year.

Results*Work intensity and work hours*

Work intensity and work hours were positively and significantly correlated ($r = 0.19$, $p < 0.01$), but only weakly. Respondents indicated working an average of 45.5 hours per week ($SD = 9.52$) and indicated an mean score of 38.6 ($SD = 8.79$) on the measure of work intensity; scores on work intensity could range from a low of 15 to a high of 75. Males and females worked a similar number of hours per week (45.6 and 45.4) but males indicated higher levels of work intensity than did females (39.3. and 36.6, respectively, $p < 0.01$).

Predictors of work intensity and work hours

Table II shows the results of hierarchical regression analyses in which measures of work intensity and work hours were regressed on two blocks of predictors: personal demographics and work situation characteristics. Personal demographics and work situation characteristics accounted for a significant amount and increment in explained variance on work intensity. Males, respondents having less education, respondents having longer job tenure and respondents working in smaller organizations indicated greater work intensity ($Bs = -0.25$, -0.16 , 0.24 , and -0.16 , respectively).

Personal demographics, but not work situation characteristics, accounted for a significant amount of explained variance on work hours. More educated respondents worked more hours ($B = 0.19$).

Individual difference personality factors

Table III presents the results of hierarchical regression analyses in which work intensity and work hours were separately regressed on three blocks of predictors: personal demographics, work situation characteristics, and stable personality factors ($n = 3$). The following comments are offered in summary. First, stable personality factors accounted for a significant increment in explained variance on both work intensity and work hours. Managers scoring higher on control of others, higher on NACH, and higher on non-required work described their jobs as more work intense ($Bs = 0.34$, 0.27 , and 0.16 , respectively). In addition, managers scoring higher on control of others worked more hours per week ($B = 0.16$).

Work intensity	R	R^2	Change R^2	p
Personal demographics	0.28	0.08	0.08	0.001
Gender (-0.25)				
Education level (-0.16)				
Work situation characteristics	0.38	0.15	0.07	0.01
Job tenure (0.24)				
Organization size (-0.16)				
<i>Hours worked</i>				
Personal demographics	0.22	0.05	0.05	0.05
Education level (0.19)				
Work situation characteristics	0.24	0.06	0.01	NS

Table II.
Demographic and work
situation predictors
of work intensity
and work hours

Work intensity
and work hours

Work intensity	<i>R</i>	<i>R</i> ²	Change <i>R</i> ²	<i>p</i>
Personal demographics	0.28	0.08	0.08	0.001
Gender (−0.19)				
Work situation characteristics	0.38	0.15	0.07	0.01
Organizational size (−0.21)				
Job tenure (0.21)				
Personality factors	0.62	0.39	0.24	0.001
Control of others (0.34)				
NAch (0.27)				
Non-required work (0.16)				
<i>Work hours</i>				
Personal demographics	0.22	0.05	0.05	0.05
Education level (0.24)				
Work situation characteristics	0.24	0.06	0.01	NS
Personality factors	0.30	0.09	0.03	0.05
Control of others (0.16)				

Table III.
Personality predictors
of work intensity
and work hours

Predictors of work engagement

Table IV presents the results of hierarchical regression analyses in which three measures of work engagement were regressed on the three blocks of predictors. The following comments are offered in summary. First, all three blocks of predictors

Work engagement	<i>R</i>	<i>R</i> ²	Change <i>R</i> ²	<i>p</i>
<i>Vigor</i>				
Personal demographics	0.27	0.08	0.08	0.01
Marital status (0.25)				
Gender (0.16)				
Work situation characteristics	0.34	0.12	0.04	0.05
Organizational level (0.16)				
Job demands	0.44	0.20	0.08	0.001
Work intensity (0.26)				
<i>Dedication</i>				
Personal demographics	0.35	0.12	0.12	0.001
Marital status (0.30)				
Education level (−0.24)				
Length of marriage (−0.29)				
Work situation characteristics	0.39	0.15	0.03	NS
Job demands	0.45	0.21	0.06	0.001
Work intensity (0.18)				
Work hours (0.14)				
<i>Absorption</i>				
Personal demographics	0.31	0.09	0.09	0.001
Education level (−0.30)				
Work situation characteristics	0.37	0.13	0.04	0.05
Organizational size (0.17)				
Job demands	0.40	0.16	0.03	0.05
Work hours (0.16)				

Table IV.
Work intensity, work
hours and work
engagement

accounted for significant amount or increment in explained variance on vigor. Managers who were single, male, at higher organizational levels and worked in more intense jobs indicated higher levels of vigor ($Bs = 0.25, 0.16, 0.16, \text{ and } 0.26$, respectively). Second, two of the three blocks of predictors (personal demographics and job demands) accounted for a significant amount or increment in explained variance on dedication. Managers who were single, less highly educated, in longer marriages, working in more intense jobs and working more hours indicated higher levels of dedication ($Bs = 0.30, -0.24, -0.25, 0.18, \text{ and } 0.14$, respectively). Third, all three blocks of predictors accounted for a significant amount or increment in explained variance on absorption. Managers who were less educated, worked in smaller sized organizations and work more hours a week indicated higher levels of absorption ($Bs = -0.30, 0.17, \text{ and } 0.16$, respectively).

Predictors of work outcomes

Table V shows the results of hierarchical regression analyses in which four work outcomes (job satisfaction, career satisfaction, job stress, and intent to quit) were regressed on three blocks of predictors. All three blocks of predictors accounted for a significant amount or increment in explained variance on job satisfaction. Managers in longer marriages, married managers, managers having less organizational tenure, managers at higher organizational levels, managers having longer job tenure, managers working in smaller organizations and managers working in more intense jobs indicated higher levels of job satisfaction ($Bs = 0.41, 0.22, -0.28, 0.23, 0.22, -0.17, \text{ and } 0.18$, respectively).

Two blocks of predictors accounted for a significant increment in explained variance on career satisfaction (work situation characteristics and job demands). Managers working in more intense jobs indicated higher levels of career satisfaction ($B = 0.44$).

Only one block of predictors accounted for a significant amount or increment in explained variance on job stress (job demands). Managers working in more intense jobs indicated higher levels of job stress ($B = 0.38$).

Finally, only one block of predictors accounted for a significant amount or increment in explained variance on intent to quit (personal demographics). Males, younger managers, and more educated managers were more likely to intend to quit ($Bs = 0. - 0.2, 0.30, \text{ and } 0.20$, respectively).

Predictors of psychological well-being

Table VI shows the results of hierarchical regression analyses in which three indicators of psychological well-being (exhaustion, work-family conflict, and psychosomatic symptoms) were separately regressed on the same three blocks of predictors. The following comments are offered in summary.

First, two blocks of predictors (personal demographics and job demands) accounted for a significant amount or increment in explained variance on exhaustion. Women and managers working more hours per week indicated higher levels of exhaustion ($Bs = 0.19 \text{ and } 0.18$, respectively).

Second, two blocks of predictors (work situation characteristics and job demands) accounted for significant increments in explained variance on work-family conflict. Managers working in larger organizations, managers lower organizational levels,

Work outcomes	<i>R</i>	<i>R</i> ²	Change <i>R</i> ²	<i>p</i>	Work intensity and work hours
Job satisfaction					
Personal demographics	0.24	0.06	0.06	0.05	
Length of marriage (0.41)					
Marital status (0.22)					
Work situation characteristics	0.44	0.20	0.14	0.01	
Job tenure (-0.28)					
Organizational level (0.23)					
Organizational tenure (0.22)					
Organizational size (-0.17)					
Job demands	0.47	0.22	0.02	0.05	
Work intensity (0.18)					
<i>Career satisfaction</i>					
Personal demographics	0.21	0.04	0.04	NS	
Work situation characteristics	0.27	0.08	0.04	0.05	
Job demands	0.33	0.11	0.03	0.05	
Work intensity (0.14)					
<i>Job stress</i>					
Personal demographics	0.20	0.04	0.04	NS	
Work situation characteristics	0.26	0.07	0.03	NS	
Job demands	0.48	0.23	0.16	0.001	
Work intensity (0.38)					
<i>Intent to quit</i>					
Personal demographics	0.36	0.13	0.13	0.001	
Gender (0.24)					
Age (0.30)					
Education level (0.20)					
Work situation characteristics	0.39	0.16	0.03	NS	
Job demands	0.42	0.18	0.02	NS	

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Table V.
Work intensity, work hours and work outcomes

and managers working in more intense jobs, and managers working more hours indicated higher levels of work-family conflict (*B*s = 0.21, -0.20, 0.28, and 0.14, respectively).

Third, two blocks of predictors accounted for a significant amount or increment in explained variance on psychosomatic symptoms (personal demographics, work situation characteristics). Managers that were older, had shorter marriages, were at lower organizational levels and worked in smaller sized organizations reported more psychosomatic symptoms (*B*s = 0.58, -0.28, -0.21, and -0.18, respectively).

Discussion

This research makes an important contribution by considering both number of hours work and work intensity – the nature of one’s work – simultaneously and using a sample of Egyptian managers. Relatively little research has been undertaken examining work attitudes and human resource management practices in Egypt.

Our measures of work hours and work intensity were significantly and positively correlated, but only weakly so. Similar gender differences were obtained on work intensity in all three countries; Males reported higher levels of work intensity. This likely reflected the fact that males tended to be at higher organizational levels, earned

Table VI.
Work intensity, work
hours, and psychological
well-being

Psychological well-being	<i>R</i>	<i>R</i> ²	Change <i>R</i> ²	<i>p</i>
Exhaustion				
Personal demographics	0.33	0.11	0.11	0.001
Gender (0.19)				
Work situation characteristics	0.38	0.14	0.03	NS
Job demands	0.42	0.17	0.03	0.05
Work hours (0.13)				
<i>Work-family conflict</i>				
Personal demographics	0.21	0.04	0.04	NS
Work situation characteristics	0.32	0.10	0.06	0.01
Organizational size (0.21)				
Organizational level (-0.20)				
Job demands	0.46	0.21	0.11	0.001
Work intensity (0.28)				
Work hours (0.14)				
<i>Psychosomatic symptoms</i>				
Personal demographics	0.31	0.10	0.10	0.001
Age (0.58)				
Length of marriage (-0.28)				
Work situation characteristics	0.39	0.16	0.06	0.01
Organizational level (-0.21)				
Organization size (-0.18)				
Job demands	0.40	0.16	0.00	NS

more money and had longer organizational tenure in some of these countries. Males and females worked similar numbers of hours in Egypt.

The measures of work intensity and work hours shared few common personal demographic and work situation predictors (Table II); more educated managers however worked more hours but indicated lower work intensity.

In addition, both work intensity and work hours shared a common personality correlates. Managers scoring higher on non-required work, one of the two workaholic job behaviors, also reported working more hours in more intense jobs. Although Mudrack proposed non-required work as a workaholic job behavior, more likely it reflects the job requirements of successful managers in high-level jobs more than the driven, addictive aspects of workaholism (Porter, 1996; Robinson, 1998).

The results of hierarchical regression analyses in which work intensity and work hours were simultaneously entered as predictors of work engagement, several work outcomes, and indicators of psychological well-being indicated few effects for work hours (Tables IV-VI). The results of these same analyses, however, indicated several significant effects of work intensity. Managers reporting greater work intensity also indicated higher levels of work engagement – a positive work outcome – and more job satisfaction – also a positive outcome. Managers reporting greater work intensity also indicated lower levels of psychological well-being (more job stress, work-family conflict-both negative outcomes). These results suggest the complexity of relationships of work intensity with various work and well-being outcomes (Tables IV-VI).

There are perhaps four important issues in these findings that need to be highlighted. First, work intensity emerged as a considerably more powerful and consistent predictor of work and health outcomes than hours worked. Future research

needs to include both assessments of work intensity and work hours if the effects of work hours themselves are to be more fully understood. Second, the results highlight the complex interplay of work intensity and work and well-being outcomes. Managers reporting higher levels of work intensity were more job satisfied and engaged in their work while at the same time reporting lower levels of psychological well-being. These latter findings are somewhat consistent with those reported by Hewlett and Luce in their study of “extreme jobs.” They found very high levels of satisfaction and engagement with work among their senior level executives and managers working 60 or more hours a week in intense jobs. This pattern of findings highlights the difficulty individual managers may have in making choices in whether or not they want to work fewer hours in their intense jobs (Burke and Cooper, 2008). Third, work hours have been found to produce inconsistent relationships with work and well-being outcomes in various studies (Burke, 2006; Burke and Cooper, 2008). To address this, it is recommended that studies include measures of both work hours and work intensity. Fourth, it is critical to better understand the circumstances when work hours and work intensity lead to negative outcomes and when they lead to positive outcomes.

Limitations of the research

This research, like most others, has some limitations. First, all data were collected using self-report questionnaires raising the small possibility of responses being affected by use of a common method. Second, the data were collected at one point in time making it difficult to establish causal relationships. Third, a few of the measures had levels of internal consistency reliability below the generally accepted level of 0.70. Fourth, although the sample was relatively large, it was not likely a representative sample of Egyptian managers and professionals. Fifth, the sample was relatively young, single and without children; it is not clear the extent to which these results would generalize to an older sample having both children and longer work and organizational tenure. Sixth, the extent to which these findings would generalize to respondents working in other industrial sectors or respondents in other countries is yet to be determined.

Future research directions

Our knowledge of the effects of work hours and work intensity would be increased by including a wider array of potential individual and organizational antecedents (e.g. Big Five personality factors, job insecurity, use of technology, and competitive pressures) and consequences (burnout, job performance, and optimism). In addition obtaining data from the spouses/partners of the job incumbents would provide another perspective on the effects of working hours and work intensity. Finally, conducting this research in other cultures and countries would determine whether there are any boundary conditions limiting the generalizability of the findings obtained here (Hofstede, 1980).

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