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SOCIAL PSYCHOLOGY | RESEARCH ARTICLE

The role of predicting the formation of workaholism based on personality factors and perfectionism in academics

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Abstract: **Objective**: This study aims to determine the role of personality factors and perfectionism in predicting workaholism among the faculty members. **Methods**: The design of the study was correlational and the statistical population included faculty members of Islamic Azad University of East Azarbaijan Province, where 278 persons were selected among them using multistage cluster sampling method. The data were collected using a questionnaire on demographic and occupational characteristics, NEO five-factor inventory, and workaholism risk inventory and were analyzed using Pearson correlation coefficients and hierarchical regression analysis. **Results**: The results of regression analysis showed that by controlling demographic and occupational characteristics, personality factors of conscientiousness ($\beta = 0.52$), neurosis ($\beta = -0.38$), extraversion ($\beta = 0.23$), openness ($\beta = 0.18$) and perfectionism ($\beta = 0.43$) were able to predict 43% of the workaholism variance among the faculty members. **Conclusions**: According to the results of this study, personality factors can predict workaholism among university faculty members.

Subjects: Psychological Science; Social Psychology; Work and Organizational Psychology

Keywords: personality factor; perfectionism; workaholism

ABOUT THE AUTHORS

The authors of this article have been working on social psychology and industrial organizational psychology. Mrs Alizadeh is a faculty member in Payame Noor University, Sarpol-e-Zahab Branch. She is interested in psychology and educational sciences. Mrs Dehghan is a nonresident researcher in Kermanshah University of Medical Sciences and a PhD student in Razi University. She has published some papers in Persian in the field of psychology. Mrs Jahangir Booket is also a nonresident researcher in Kermanshah University of Medical Sciences and she is interested in consulting.

PUBLIC INTEREST STATEMENT

This study aimed to investigate the role of personality factors in the formation of workaholism among faculty members of Kermanshah University of Medical Sciences after controlling demographic variables and job characteristics in order to find out what characteristics and personality dimensions are effective in the formation of workaholism among university faculty members and provide more opportunities for its development. This study is only a prelude to more extensive research on the role of personality factors in the occurrence of workaholism among the faculty members of universities in the country. Judging more accurately and generalizing the results involve the application of other influential variables such as social factors and organizational structure; it is hoped that this area of research will not be ignored in the future.

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1. Introduction

Presence in the academic and research environment creates a lot of mental concerns in individuals and causes them to constantly try to achieve scientific advancement due to the organizational requirements and competitive conditions. Therefore, they devote a great time to scientific and research activities both inside and outside the university. This situation is especially evident in doctoral students and faculty members so that the possibility of being hurt physically and psychologically is very high for this category of people. In this study, it is tried to explain the strange fascination of these individuals in the form of workaholism.

The term workaholism was first used by Oates (1971). He described this term as uncontrollable need, coercion, and inevitability to work continuously. This definition consists of two main elements: working very severely and severe innate desire to work (McMillan, Driscoll, Burke, & Workaholism, 2003). The first case refers to the fact that workaholics tend to spend extra time compared to the reasonable work that is expected of them in order to meet the objectives of the organization. The latter case acknowledges that workaholics always and constantly think about work, even when they are not working. In other words, the minds of workaholics are always engaged in matters related to work. These two components, which respectively form the cognitive and behavioral elements of workaholism, refer to the root of the word workaholism which is rightly consistent with alcoholism (Oates, 1968).

Scott, Moore and Miceli (1997) identified three patterns of workaholism entitled obsessive-compulsive disorder (OCD), perfectionism and success-mindedness (need for achievement). In their opinion, workaholics have much obsession, anxiety and stress, their work results in physical and psychological problems, have little satisfaction with life and their jobs and their job performance is low. The perfectionist workaholics have stress and high physical and mental problems, have hostile and ineffective interpersonal relations, have high voluntarily absenteeism and turnover and also have low job satisfaction and job performance. Finally, success-minded workaholics have higher life satisfaction, job satisfaction, physical and mental health, job performance and organizational-citizenship behaviors and have lower stress and voluntary turnover (Spence & Robbins, 1992). Workaholism is determined based on the degree and amount of the three components of job involvement, feeling of being driven to work and work enjoyment. According to Spence and Robbins, there is a high degree of job involvement in workaholics, and they have a high tendency toward work but they do not enjoy working. In contrast, those who are eager to work become involved in the work but they enjoy working and they do not have OCD toward work.

Workaholism can have different effects on physical and mental health of individuals, their families and their colleagues. The most common consequences of workaholism are related to high levels of job stress and work–family conflict; however, there are other consequences such as the increase of health-threatening symptoms (physical and psychological), job burnout, creating problems in teamwork, withdrawal and avoidance of interactions and family relationships, difficulty in communicating with others, low satisfaction with life and loss of enjoyment of leisure (Piotrowski & Vodanovich, 2008).

Researchers have raised different perspectives to describe workaholism including learning theory, addiction model, trait and personality theory, cognitive models and family systems theory (Ryan & Barrick, 2003). However, reviewing the related literature, Liang and Chu (2009) showed that among the existing models, trait and personality theory has gained the most empirical support in this area (Liang & Chu, 2009). This theory considers workaholism as a stable behavioral model that exists in the form of a natural tendency in people and is likely to be increased in certain situations. On the other hand, most theories of personality consider workaholism as a disordered personality trait that usually has a positive relationship with the personality trait of conscientiousness (Clark, Livesley, Schroeder, & Irish, 1996). Therefore, workaholism may be a low-level personality trait associated with top personality factors (Burke, Matthiesen, & Pallesen, 2006; Dehghan, Karami, Piri, & Karimi, 2014).

In recent decades, among the most important and influential models examining personality traits is the five-factor model that allocated most research in the field of personality to itself. Costa and McCrae (1992) have raised five main dimensions using factor analysis including neuroticism (people with emotional stability are self-confident, stable and peaceful; but neurotics are angry, uncertain, insecure, depressed and anxious), extroversion (extroverted people are social, sociable and decisive; while the introverted people are reserved, timid, reticent, shy and cautious), openness to experience, implies the interest and fascination of an individual toward new experiences. Such people are creative, curious and sensitive. People who are on the other side of the spectrum follow tradition and are more comfortable in familiar situations (McCrae & John, 1992). Agreeableness: agreeable people have a spirit of cooperation and are sincere and trustworthy. In contrast, people with low levels of agreeableness are cold, competitive and combative. And conscientiousness: conscientious people are responsible, sustainable, structured and reliable. In contrast, people who gain a low score on this personality trait are non-structured, unreliable and disturbed. The five-factor model has a comprehensive view of the human being and includes almost all of the mentioned characteristics among the general public and the scientific theories of personality (Ahmadi, Tahmasebi, & Babashi, 2010).

Little research has investigated the role of personality factors in the rise of workaholism. The findings of the study of Gholipour and Nargesian (2008) indicated that there is a significant positive relationship between personality traits of self-esteem, narcissism and internal locus of control with workaholism and there is a significant negative relationship between external loci of control with workaholism (Gholipour & Nargesian, 2008). The study of Burke et al. (2006) on the relationship between the big five personality factors and self-efficacy with elements of workaholism showed that there are significant relationships between neuroticism and the feeling of being driven to work, between extroversion and job involvement and between general self-efficacy with all three dimensions of workaholism (Burke et al., 2006), while the demographic factors and work features failed to explain more than 3% of the variance in any of workaholism aspects. In addition, Burke et al. (2006) found that there is a significant positive relationship between the factors of extraversion, agreeableness and conscientiousness with workaholism; however, no significant relationship was found between other personality factors with workaholism (Ahmadi et al., 2010). The results of the study of Liang and Chu (2009) revealed that obsessive-compulsive personality traits, achievement-seeking, perfectionism and conscientiousness are the key traits that lead to workaholism.

Besides personality traits, some studies have investigated the role of demographic characteristics (Khoshouei, 2017) and environmental and working conditions (Buelens & Poelmans, 2004) in the formation and rise of workaholism that different and sometimes conflicting results can be seen among them. Accordingly, in this study, in order to more precisely evaluate the role of personality factors and perfectionism in the development of workaholism, the impact of demographic and job-related characteristics was controlled (Kaboudi, Dehghan, & Ziapour, 2017).

Considering the raised theoretical foundations and a few researches in the field of workaholism, the role of personality factors and perfectionism in these areas will be examined. In case of clarifying the relationship between specific personality characteristics and vulnerability of people to workaholism, the scientific importance of the research will be clear.

2. Materials and methods

The population, sampling and research protocols: This study is a correlational study in which the relationship between predictor variables (personality factors, demographic and job characteristics) and the criterion variable (workaholism) is investigated. The population of the study included faculty members of Islamic Azad University of East Azarbaijan Province that were 1611 individuals based on the latest statistics and secretariat data center in District 13 of Azad University. According to the Kerjcie and Morgan sample size table (Oates, 1971) and using cluster random sampling, 310 faculty members were selected among them and because some participants did not respond all the questions, 32 individuals were excluded. In the final analysis, the data of 278 faculty members was used.

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2.1. Measuring tool

2.1.1. Demographic and job characteristics questionnaire
Using this questionnaire, some demographic (gender, age, marital status, having children) and occupational (work experience, academic rank, specialty, executive responsibility, type of employment and average monthly income) information related to faculty members were collected.

2.1.2. Work addiction risk questionnaire of Spence and Robbins (1992)
In order to measure addiction to work, this tool was used which was developed by Spence and Robbins (1992). This scale was translated and validated by Khadem Dezfuli (2013) for the first time in Iran. The questionnaire has 25 items and 3 subscales including work involvement (8 items), feeling of being driven to work (7 items) and work enjoyment (10 items) which is graded on a 5-point scale from "strongly disagree" to "strongly agree." Using Cronbach's alpha, the reliability of the tool was reported 0.69 in the research of Burke et al. (2006). In addition, using Cronbach's alpha, the reliability of the questionnaire was obtained 78% in this study.

2.1.3. NEO-Five Factor Personality Inventory
The NEO-Five Factor Personality Inventory questionnaire is the short form of the revised questionnaire of NEO Personality Inventory-Revised. This questionnaire has 60 items and evaluates 5 major personality types of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. This tool is answered by the 5-point Likert scale ranging from "strongly agree to strongly disagree" (Atabaki, 2009). Its content validity was examined by Costa and McCrae (2005), and they reported the reliability of neurosis 0.90, extraversion 0.78, openness 0.76, agreeableness 0.86 and conscientiousness 0.90 (Cp & Mr, 2005). Cuijpers, Straten and Donkers (2011) reported the reliability coefficients (Cronbach's alpha) of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness respectively as 0.80, 0.78, 0.69, 0.71 and 0.75. Moreover, Garusi Farshi (2001) translated the questionnaire into the Persian language and confirmed its 5-factor structure as a whole. Using Cronbach's alpha, the reliability coefficients derived from his study for the main factors were reported, respectively, as 0.86, 0.73, 0.56, 0.68 and 0.87.

2.1.4. The revised form of Slaney perfectionism scale
This scale consists of 35 items, 10 of which assess high criteria, 18 items assess incongruity and 7 items measure the order aspect. This scale is set based on a 5-point Likert scale from strongly disagree (Oates, 1971) to strongly agree (Ryan & Barrick, 2003). Using Cronbach's alpha Clark, Lelchook and Taylor (2010) assessed the reliability of the scale for the total scale and its various components (high criteria, incongruity, order) which were, respectively, 0.87, 0.85, 0.74 and 0.69. Using Cronbach's alpha, the reliability coefficients for different factors of the questionnaire were calculated in the present study as follows: high criteria 0.79, incongruity 0.85 and order 0.74. In order to test the content validity of the questionnaire, experts and academics evaluated it which was confirmed with a large convergence between the views of the experts (Clark et al., 2010).

2.2. Participants
In the present study, the data collection method and the way of research implementation were individual and the sampling method was in the way that at first 8 units and 4 centers were randomly chosen from about 24 units and 12 centers of Azad University of East Azarbaijan. From the selected units and centers, relative to number of departments, faculty members were randomly selected and the questionnaires were given to them. Table 1 show some demographic and job characteristics of the population of the study.

2.3. Ethical consideration
In order to meet ethical considerations, the researcher explained the aims of the study and reassured them that the information will remain confidential and will be analyzed collectively and anonymously.

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Table 1. The descriptive-demographic characteristics of the population of the study			
Variable	**Variable level**	**Frequency**	**Percentage**
Gender	Male	180	64.74
	Female	98	35.25
Age	30 years and younger	67	24.10
	31–40 years	107	38.48
	41–50 years	84	30.21
	50 years and older	38	13.66
Marital status	Single	31	11.15
	Married	247	88.84
Having children	With children	206	74.10
	Without children	72	25.89
Work experience	7 years and less	32	11.51
	8–14 years	86	35.25
	15–21 years	102	36.69
	21 years and older	58	20.86
Academic rank	Trainer	53	19.06
	Assistant professor	155	55.75
	Associate professor	63	22.66
	Professor	7	2.51
Specialty	Mathematics	56	20.14
	Humanities	41	14.74
	Experimental	83	29.85
	Technical	98	35.25
Executive responsibility	Having executive responsibility	52	17.70
	No executive responsibility	226	81.29
Type of employment	Formal	167	87.89
	Experimental	54	19.42
	Contractual	125	44.96
The average monthly income (in rial)	12,000,000–17,000,000	99	35.61
	18,000,000–23,000,000		
	Higher than 24,000,000		

2.3.1. Data analyses

Data analysis was performed using Pearson correlation coefficients and hierarchical regression analysis using SPSS version 18 and was evaluated at the statistical level of $p < 0.05$.

2.4. Results

According to table 2, there is significant relationship between workaholism with neurosis ($R = -0.41$), extraversion ($R = 0.38$), openness ($R = 0.29$), conscientiousness ($R = 0.58$) and perfectionism ($R = 0.47$); but there is no significant relationship between workaholism with agreeableness ($R = 0.09$).

In order to determine the role of personality factors in predicting workaholism, hierarchical regression analysis was run that the results are presented in Table 3. The predictor variables were analyzed in three steps. The first step included demographic variables (gender, age, marital status and having children), the second step included variables related to job characteristics (work

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Table 2. The correlation matrix between the variables							
Variables	1	2	3	4	5	6	7
1. Neurosis	1						
2. Extraversion	−0.42***	1					
3. Openness	−0.23**	0.21**	1				
4. Agreeableness	−0.19**	0.33***	0.06	1			
5. Conscientiousness	−0.37***	0.39***	−0.09	0.28***	1		
6. Perfectionism	0.35***	−0.22**	−0.19**	−0.26***	0.43***	1	
7. Workaholism	−0.41***	0.38***	0.29***	0.09	0.58***	0.47***	1

$**p < 0.01$; $***p < 0.001$.

Table 3. The results of hierarchical regression analysis to predict workaholism through personality factors after controlling for demographic factors and job characteristics							
The criterion variable	Model	The predictor variables	R	R^2	$R^2\Delta$	F	P-value
Workaholism	1	Demographic variables Gender ($\beta = 0.27$)	0.01	1.60	0.12	1.60	0.01
	2	Age ($\beta = 0.18$) Job characteristics	0.01	1.87	0.14	0.19	0.35
	3	Gender ($\beta = 0.19$) Executive responsibility ($\beta = 0.31$) Demographic characteristics Conscientiousness ($\beta = 0.52$) Perfectionism ($\beta = 0.46$) Neuroticism ($\beta = 0.38$) Extraversion ($\beta = 0.23$) Openness ($\beta = 0.18$)	0.0001	7.14	0.35	0.43	0.62

experience, academic rank, specialty, executive responsibility, type of employment and average monthly income) and the third step involved personality factors (neuroticism, extraversion, openness, agreeableness, conscientiousness and perfectionism). The variables entered in the first two steps were analyzed as control variables before examining the relationship between personality and workaholism.

As can be seen in Table 3, the results of regression analysis in the first model for the job involvement variable show that among the demographic variables included in the regression equation, two factors of gender ($\beta = 0.27$) and age ($\beta = 0.18$) could explain significant variance from workaholism ($R^2 = 0.16$).

In the second model, the variables related to job characteristics were entered into the regression equation that with the entrance of these variables, the factor of having executive responsibility ($\beta = 0.31$) reduced the contribution of gender variable in predicting workaholism ($\beta = 0.19$) and the age factor has lost its significance. This equation in sum with the previous equation explained 19% of the variance of workaholism.

In the third model, personality traits were entered the equation that as it can be seen in this model, four factors of conscientiousness ($\beta = 0.52$), neuroticism ($\beta = −0.38$), extraversion ($\beta = 0.23$), openness ($\beta = 0.18$) and perfectionism ($\beta = 0.46$) were able to predict workaholism. With the arrival of personality factors, the contribution of two factors of gender and having executive responsibility

was excluded from the predicting cycle of workaholism among the university faculty members, and personality and perfectionism could altogether explain 43% of the variance of workaholism.

3. Discussion

After controlling demographic variables and job characteristics, this study aimed to investigate the role of personality factors in the formation of workaholism among faculty members of Azad University of East Azarbaijan in order to find out what characteristics and personality dimensions are effective in the formation of workaholism among university faculty members and provide more opportunities for its development. The results of the implementation of hierarchical regression analysis were in line with the findings of Clark et al. (2010), Burke et al. (2006), McMillan et al. (2003) and Burke (2001) and showed that demographic and job characteristics were independent of the components of workaholism and cannot predict it (Burke, 2001; Burke et al., 2006; Clark et al., 2010; McMillan et al., 2003; Yazdanbakhsh et al., 2016). Moreover, based on the results of the study, it was found that after controlling for demographic factors and job characteristics, there is a negative correlation between the personality factor of neuroticism and workaholism and this finding was not observed in the study of Ahmadi et al. (2010). Based on the five-factor model of personality, neuroticism includes some characteristics such as anxiety, depression, excessive anxiety, pessimism and low confidence and tendency toward negative feelings about the events, people and phenomena (McCrae & John, 1992). Therefore, those who score high in neuroticism are less likely to have positive attitudes toward their job. On the other hand, due to the lack of confidence and optimism, these people are less likely to have ambition in the course of their career, including in cases related to goal setting and performance upgrades. Empirical evidence has shown that neuroticism is negatively correlated with being purposeful and goal-oriented (Malouff et al., 1990). Therefore, it can be expected that people suffering from high neuroticism do not devote themselves to their work and job. In addition, neurotic people value health and maintenance factors in jobs such as security and the job environment instead of valuing motivating factors such as the nature of work and opportunities for advancement (Furnham, Forde, & Ferrari, 1999). Therefore, it is less likely that such people enjoy their jobs and be so excited that their performance improves.

The other finding of the study, which was in line with the findings of Burke et al. (2006), Anderson, Hetland and Mathisen (2014) and Burke et al. (2006), showed that after controlling for demographic factors and job characteristics, extraversion had a significant positive relationship with workaholism among university faculty members. Based on the five-factor model of personality, having high energy and being active are the main features of extraversion which enable extroverted people to gain experience and progress in work and consequently encourage business involvement (Ahmadi et al., 2010; Burke et al., 2006). Similarly, Costa, McCrae and Holland (1984) [quoted by Burke et al. (2006)] showed that measures of extraversion are strongly correlated with interest to take large risk in jobs.

According to the findings of the study, which are consistent with the findings of (Ahmadi et al., 2010), it was found that personality factor of openness had a positive significant relationship with workaholism (Ahmadi et al., 2010). As mentioned in the discussion of the characteristics of this personality factor, openness to experience implies the interest and fascination of an individual toward new experiences and such people are creative, curious and sensitive. Therefore, since the job of university faculty members intensely requires spirit of scholarship, innovation, creativity and identifying the problem and designing a solution, and thus preoccupies the person greatly, the possibility of workaholism is very strong.

In line with the findings of Ahmadi et al. (2010), the results of the present study revealed that conscientiousness is positively correlated with workaholism (Ahmadi et al., 2010). With regard to the spirit of achievement, conscientiousness and progress-seeking in conscientious people, these individuals are expected to devote long time to work (Hamermesh & Slemrod, 2008). On the other

hand, because scientific development is one of the most important elements of the job of faculty members, as the personality factor of conscientiousness increases, their internal willingness to work, and consequently their workaholism, will increase. In addition, the results of Ryan and Barrick (2003) indicated that conscientiousness has a significant positive relationship with career success and job performance. Therefore, it can be expected that people with high conscientiousness have more tendency toward their work and are interested in their career and are motivated to improve their performance (Ryan & Barrick, 2003).

Finally, consistent with the study of Ahmadi et al. (2010), this study revealed that there is a significant positive relationship between perfectionism and workaholism among the faculty members (Ahmadi et al., 2010). This feature includes very high standards for performance, along with self-criticism. Therefore, due to setting high career objectives and standards and more effort to achieve these objectives, those university professors who have high levels of perfectionism are probably more prone to workaholism. On the other hand, because of enjoying the spirit of self-criticism, perfectionists always underestimate their success, perceive their mistakes devastating and have severe feelings of inferiority. In particular, in environments such as universities that strengthen and support the highest standards, individuals are constantly invaded by expectations and demands of high performance which in long term make them susceptible to the signs of workaholism.

According to the obtained results of the study about the role of personality factors in the development of workaholism, the following suggestions can be presented to reduce the effects of workaholism among the faculty members of Azad University: Identifying those faculty members who are at the risk of workaholism due to certain personality traits; presenting psychological educational programs such as training effective coping strategies to reduce the risk of workaholism among the faculty members; reestablishing work priorities, alternative career plans, making sure that people leave work at a specified time; creating an organizational culture with values that emphasize the importance of work–family balance.

This study is only a prelude to more extensive research on the role of personality factors in the occurrence of workaholism among the faculty members of universities in the country. Judging more accurately and generalizing the results involve the application of other influential variables such as social factors and organizational structure; it is hoped that this area of research will not be ignored in the future.

4. Conclusion

The cross-sectional design that prevents conclusions about the causal relationships is one of the limitations of the study. The other limitations of the study include the use of self-report questionnaire and the statistical population which was limited to East Azarbaijan Province, the problem of generalizability of the findings and also the limitation of research activities particularly in relation to domestic resources. It is recommended that future research be conducted on larger population and with controlling different sociocultural variables.

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