

Workaholism and Subjective Well-being: Examining a Mediation Model

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Abstract: With the popularization of the new ways of working (such as flexible work schedule and telecommuting), boundary between family and work is becoming increasingly blurred. Consequently, public concern about overtime-work has been deepened by the emergence of “996” working schedule, which means employees are required to be indulged in work from 9am to 9pm weekly except Sunday. Both positive and negative outcomes may be caused by such work schedule. According to self-determination theory (SDT), an understanding of human motivation requires a full consideration of innate psychological needs for autonomy, competence and relatedness, hence the ‘workaholic’ behavioral pattern could be understood in terms of satisfying the needs for competence. The work motivation of ‘workaholic’ originates from inner motivation, workaholics devote themselves to work and enjoy working both energetically and strenuously. Enjoyment of work is expected to be positively related to high level of satisfying the needs of competence. Based on SDT, the data collected from 3513 employees during an online survey in two time points indicates that workaholism positively predicts personal well-being, which is mediated by the sense of competence. The direct effect of work enjoyment on personal well-being could be seen more evident than that of work drive. Finally, the theoretical and practical contributions of this study are as followings: (1) this study contributes to the existing empirical research of relationship between workaholism and well-being by comparing effects of well-being generated by drive of work and enjoyment of work, (2) this study extends the understanding of the relationship between workaholism and well-being by revealing the internal mechanism using self-determination theory, (3) the employees of the organization are supposed to be trained in order to enhance their competence and the leaders would be well advised to offer employees more positive feedback. Future studies should focus on the integration of main various theory models, examining the influence of various mediating and moderating variables, and exploring the relationship between workaholism and well-being at dimensional level.

Keywords: Workaholism, Well-being, Competence, Work Drive, Enjoyment of Work

1. Introduction

“996” work schedule is one of the most debated topics in China in 2019. However, despite of varied perspectives, “Five working days plus One”, “Working around the clock” has in effect gained normality within modern working environment. A host of employees give up their leisure time and then invest it in work, though some of them are required to overwork involuntarily, majority of them choose to do so initially. Those people who indulge themselves in work day and night are often defined as “workaholics”. With the introduction of

flexible working time, remote office and other new working pattern, the boundary between family and work of employees is becoming increasingly obscured, which to some extent increases the employee’s difficulty of divorcing from work, and consequently more workaholics are predictably to be found [1, 2]. In the face of these active or passive “workaholics”, how can team leaders effectively manage and motivate their subordinate to produce positive results? What measures does the organization take to bridge the gap between employees’ needs and organizational goals? In the increasingly competitive business environment, it is

particularly crucial to explore the positive psychological mechanism of "workaholics" and provide it with corresponding organizational support.

2. Theoretical Basis and Research Hypothesis

2.1. *Workaholism and Well-being*

Workaholism is characterized by the behavioral pattern of over-investment of time and energy in the field of work. Does this obsession in the single field of work affect the employees' well-being?

Workaholic is defined by some scholars as the individual who invests a great deal of constant time and energy in work activities as a result of their internal motivation. Scott et al. stressed three core characteristics of workaholics: (1) a lot of time will be consumed by them in their work activities when they are offered autonomy in work; (2) they often remind themselves of work-related issues after leaving their work, in which there is a tendency of unwilling to separate themselves from work; (3) they will work at a level which is beyond the requirements of the organization and economy [3]. In the field of empirical study about workaholics, two components, enjoyment of work and work drive, are widely discussed. Enjoyment of work refers to the degree of interest felt from work itself, and its resulting actions are completely autonomous and intrinsic [4]. Work drive refers to the actions caused by internal pressure, which is to fulfill job obligations or complete important work tasks [5, 6]. Although there are various definitions of workaholic, they all reflect the high level of work motivation. In other words, workaholics are often considered as the product of self-selection.

Diener argues that well-being is an individual's overall evaluation of his or her life state, which is not only an emotional joy, but also a sense of meaning [7]. As a result of self-selection, workaholics represent a strong motivation to devote oneself into work to satisfy psychological needs. Self-determination theory holds that individuals are capable to improve their well-being by satisfying their psychological needs.

So far, the relationship between workaholism and well-being has not been examined. Some studies have illustrated that over-investment of time in work is harmful. For example, workaholism are often accompanied by low levels of well-being, high levels of conflict in the family and so on. Those studies describe workaholics as those who are unhappy, compulsive, pessimistic, life dissatisfaction and work-family conflict [8, 9, 10]. On the contrary, some studies have concluded that workaholism has a positive effect on individual's well-being, which is reflected in job satisfaction, organizational commitment and well-being [11, 12]. A qualitative study conducted by Machlowitz found that workaholism indeed has positive effects [13]. By interviewing 100 workaholics, the researchers found that their work was very efficient and their satisfaction was very high in all aspects [14]. According to a survey of 942 samples by Snir and

Harpaz, workaholics are more satisfied with their current status than others [15].

The results of the previous studies on the relationship between workaholism and well-being disagreed with each other, which is probably brought by different definitions of workaholism. Some scholars argued that work enjoyment should be included in workaholism, while others did not. Defined by different components, workaholism may have diverse effects on employees' well-being [3, 11, 16]. The variety in the definition of workaholism was often ignored in previous studies, because of which, the studies on workaholics adopted the method of calculating composite scores of various dimensions of workaholics or comparing different types of workaholics. Therefore, this paper separates the two dimensions of workaholism and respectively discusses the mediating effect of work enjoyment and work drive on well-being.

Additionally, the large aggregation of previous studies focused on the correlation between workaholism and well-being, while some on the psychological mechanism of workaholics [6, 17]. Studies have indicated that there are two aspects of the behavior pattern of workaholics: on the one hand, long hours of work and dilemma to separate from work scarcely provide workaholics enough time and opportunity to recover energy, resulting in fatigue, burnout, negative emotions and other negative consequences; on the other hand, immersion in work produces favorable work experience, high job satisfaction and positive psychological feelings. In other words, workaholics may also have a positive or negative impact on happiness. Based on above reason, this study attempts to explore the psychological mechanism between workaholics and well-being, hoping to further reveal the relationship and influence path between them.

2.2. *Competence as Mediator*

Self-determination theory (SDT) divides individual motivation into non-motivation, external motivation and internal motivation [18, 19]. Internal motivation refers to the fact that the individual is driven by the joy of the activity itself, and the behavior is completely voluntary. External motivation can be divided into autonomous motivation and controlled motivation. Autonomous motivation refers to an individual's action to obtain a very crucial result for himself, such as social value, meaning of existence, etc.; controlled motivation refers to an individual's action to obtain external or material benefits, such as obtaining rewards, avoiding punishment, reducing guilt, etc. According to the self-determination theory, it is necessary to consider the internal psychological needs of individuals to understand human motivation [19]. Competence need reflects the need for effective use of energy and efficient work, then individuals acquire the feeling that they have the capacity to both change the internal and external environment, and further experience the sense of efficacy facing flexible and various activities. According to the self-determination theory, the process of internal motivation and external motivation integrating into internal motivation is a natural process to promote the satisfaction of individual

needs, and the satisfaction of basic psychological needs is the key to strengthen internal motivation and promote the internalization of external motivation [5] which is the basis to drive people to work to obtain satisfaction.

Ryan and Deci defined competence as the individual's full confidence within the ongoing social interaction activities and their demonstrated individual abilities [20]. They put forward that, to obtain positive psychological feelings, people are willing to pursue their goals and meet their internal needs by experiencing growth and achievement in some fields. Workaholics tend to be achievement-oriented, proactive and have strong self-improvement requirements [21, 22]. Therefore, for workaholics who are eager to show themselves or prefer to embrace challenges, the work field is undoubtedly a perfect arena. The work process and its achievements provide the experience of obtaining a sense of competence and achievement, which will promote the individual's well-being.

From the perspective of self-determination theory, the motivation of workaholics is brought by internal motivation, that is, individuals are driven by the interest they experience in the process of work or the joy by their efforts. According to Machlowit's research, workaholics may find more tasks for themselves by complicating simple projects or by creating crises in the smooth state of work [14]. Improving the work complexity benefits the workaholics by demonstrating their capability to accomplish the job, thus obtain stronger sense of competence. In addition, workaholics will invest more time and work to improve their work performance and gain a sense of achievement [18]. It can be concluded that workaholics are more inclined to secure the sense of responsibility by consuming a serious amount of time in work and behaving beyond organizational requirements to satisfy the basic internal psychological needs [23].

The self-determination theory recognizes that the satisfaction of individual psychological needs can indeed promote well-being [18]. Deci and Ryan proposed that competence is one of the basic psychological needs of human beings, and that competence will positively affect individual's well-being [18]. This perspective has been backed up by a large number of studies: Ilardi *et al.* found that employees whose basic internal needs such as independent needs, competence needs and relationship needs are frequently satisfied will display more positive work attitude, higher level of self-esteem and stronger well-being experience than those not [19]. Deci *et al.* took employees from state-owned enterprises in Bulgaria and private enterprises in the United States as study samples, and found that the satisfaction of employees' internal psychological needs, such as competence, was positively related to their job performance and well-being [20]. In other words, in disparate cultural backgrounds and organizational environments, the internal psychological needs, such as competence, were still critical predictors of employees' well-being and job performance. Huang and Peng's research also concluded that employees who experience a sense of competence and efficacy in work and organization have more inclination to obtain joviality [24]. Under the perspective of self-determination theory, workaholics'

devotion to work is to acquire a sense of success in the field of work, to meet the basic internal psychological needs, which is beneficial for us to further understand the psychological mechanism between workaholism and well-being.

Based on the analysis above, the following hypotheses can be made as below:

H1: Competence mediates the relationship between enjoyment of work and well-being.

H2: Competence mediates the relationship between work drive and well-being.

3. Method

3.1. Procedures

The data adopted in this study stems from the online survey in two time points, with an interval of three months. Enjoyment of work, work drive and competence were measured in advance in the first stage, and well-being in the second stage. After eliminating the invalid questionnaires, 3513 valid questionnaires were finally collected, covering 32 provinces / municipalities / autonomous regions. The sample structure is manifested as following: in terms of gender, there are 1994 men, accounting for 56.8%, 1519 women, accounting for 43.2%; in terms of age, 1475 people aged 19-29, accounting for 42.0%; 1387 people aged 30-39, accounting for 39.5%; 541 people aged 40-49, accounting for 15.4%; 110 people aged over 50, accounting for 3.2%; in terms of education-level, 369 people's education level were high school and below, accounting for 10.5%; 950 people were junior college, accounting for 27.0%; 1900 were undergraduate students, accounting for 54.1%, 294 with master's degree or above, accounting for 8.3%.

3.2. Measures

The measurement of enjoyment of work and work drive in this study adopted the revised version of WorkBAT-R questionnaire developed by McMillan based on Spence (Workaholism Battery), which uses Likert five-point scoring method. The enjoyment of work scale consists of seven items, and the internal consistency coefficient is 0.887. The work drive scale consists of seven items, with an internal consistency coefficient of 0.758. The competency was measured by the subscale of efficacy of MBI-GS, which was developed by Maslach. The internal consistency coefficient was 0.901 measured by Likert five-point scoring method. The personal well-being index (PWI) compiled by Cummins *et al.* was used to measure the well-being. The scale used 11 points of 0-10 points, and the internal consistency coefficient was 0.932.

4. Result

4.1. Confirmatory Factor Analysis

Through confirmatory factor analysis, various variables are combined, and the fitting degree of the model is compared to test the possible common method deviation. As shown in

Table 1, the goodness of fit between the observation data and the hypothesis model 1 is good ($\chi^2 = 4602.64$, $DF = 344$; $RMSEA = 0.06$, $CFI = 0.92$, $TLI = 0.92$), while the goodness of fit between the two alternative models and the actual observation data is relatively poor. Chi-square test and model

fitting index illustrate that the dissimilitude between the false model and the substitute model is significantly conspicuous. It can be assumed that the data results in this paper are less affected by the common method deviation

Table 1. Comparison of various model.

Model	Factor	χ^2	df	$\Delta\chi^2/\Delta df$	RMSEA	CFI	TLI
1	enjoyment of work work drive competence	4602.64	344		0.06	0.92	0.92
2	enjoyment of work+work drive	7039.49	347	812.28**	0.07	0.88	0.87
3	enjoyment of work +work drive+competence	15071.06	349	2093.68**	0.11	0.73	0.71

Notes: $n = 3513$; * $p < 0.05$; ** $p < 0.01$

4.2. Descriptive Statistical Analysis

Table 2 shows the mean, standard deviation and correlation coefficient of the variables involved in this study. From the results of correlation analysis, the variables (enjoyment of work, work drive, competence and well-being) were significantly correlated. Among them, a moderately significant positive correlation can be found between

enjoyment of work and well-being, indicating that high enjoyment of work is accompanied by strong well-being; while a weakly significant positive correlation would be seen between work drive and well-being, indicating that high work drive to a certain extent is accompanied by well-being; it can be found that enjoyment of work has a greater impact on well-being than work drive does.

Table 2. Mean, Standard deviation and correlation coefficient.

Variable	Mean	Standard deviation	1	2	3	4
1. enjoyment of work	3.17	0.94	(0.89)			
2. work drive	3.70	0.71	0.45**	(0.76)		
3. competence	4.81	0.87	0.35**	0.38**	(0.90)	
4. well-being	7.60	1.87	0.46**	0.23**	0.35**	(0.93)

Notes: $n = 3513$; * $p < 0.05$; ** $p < 0.01$

4.3. The Mediating Role of Competence Between Workaholism and Well-being

Structural equation model is employed to test the mediate effects, and four competition models are constructed. Model 1: enjoyment of work and work drive as independent variables, well-being as dependent variables, and competency as mediator; Model 2: a path is appended from enjoyment of work to well-being on the basis of Model 1; Model 3: a path is appended from work drive to well-being on the basis of Model 1; Model 4: on the basis of Model 1, two paths from enjoyment of work and work drive to subjective well-being is

appended at the same time. The measurement error in the process of model estimation is controlled by the structural equation, and the mediate effect is examined by comparing the four models. The models reported in Table 3 is a theoretical model based on hypothesis. By further comparison, we discover that the observation data in model 3 fit well ($\chi^2 = 3037.72$, $df = 184$; $RMSEA = 0.07$, $CFI = 0.93$, $TFI = 0.92$) and reflect the data relationship between observation variables more effectively and concisely than other models. Based on the principle of model simplicity, model 3 is the best model in this study.

Table 3. Comparison of Structural Equation Model.

Model	Description	χ^2	df	RMSEA	CFI	TFI
1	Complete Mediation	3544.69	185	0.07	0.92	0.90
2	Partial Mediation With a path from enjoyment of work to subjective well-being	3388.53	184	0.07	0.92	0.91
3	Partial Mediation With a path from work drive to subjective well-being	3037.72	184	0.07	0.93	0.92
4	Partial Mediation With two paths from enjoyment of work and work drive to subjective well-being	3035.66	183	0.07	0.93	0.92

Notes: $n = 3513$; * $p < 0.05$; ** $p < 0.01$

Figure 1 shows the path estimation results of the final model, and the path coefficient of subjective well-being from competence is significant ($B = 0.52$, $p < 0.01$). The path coefficient from enjoyment of work to competence is

significant ($B = 0.12$, $p < 0.01$). The mediation effect of enjoyment of work on subjective well-being is significant (indirect effect = 0.06, $p < 0.01$). Therefore, hypothesis receives good support.

The path from work drive to competence is significant ($\beta = 0.43, p < 0.01$). Therefore, the mediation effect of enjoyment of work on subjective well-being is significant (indirect effect

$= 0.22, p < 0.01$). Therefore, hypothesis 2 receives good support.

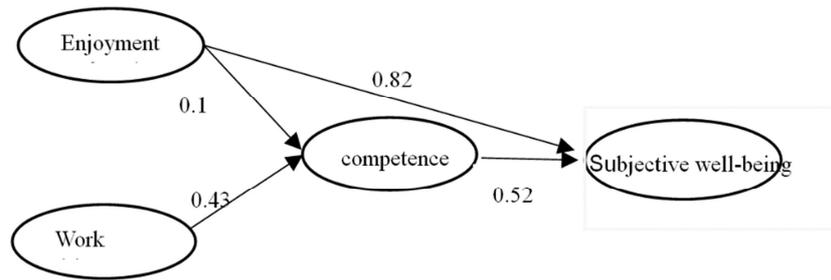


Figure 1. Model estimation on mediating model.

5. Conclusions and Discussions

It is found that there is a positive correlation between workaholism and well-being. The direct effect of enjoyment of work on well-being is stronger than that of work drive on subjective well-being. Competence plays a mediate role in the relationship between workaholism and well-being. Among them, competence plays a partial mediate role between enjoyment of work and well-being, while competence plays a role between work drive and well-being, which can be seen as a complete mediator.

5.1. Results and Discussions

According to the self-determination theory, enjoyment of work belongs to internal motivation. Because an individual could be possibly interested in some activity itself, he will voluntarily devote himself in a certain field of work, after which spontaneous satisfaction from the activity can be gained [18]; the work drive is formed based on the internal adjustment and benign integration of individual identity, but the purpose is to obtain the very crucial results for the individual (such as social value, personal meaning of existence, etc.) [19, 24]. Although work drive is not based on interest, it comes from self's internal identification and integration rather than external control and pressure. Therefore, whether the spontaneous enjoyment of work, or work drive based on internal integration, these two motivations are all from the individual itself. According to the self-determination theory, when employees internalize the grounds for action into their personal values, or when they find the activity interesting and full of pleasure, autonomy would be triggered from the individual [20]. Motivations based on autonomy rather than control rules bring positive psychological experience and better performance [25, 26]. This is consistent with the conclusion of this study, in the terms that there is a significant positive correlation between enjoyment of work and work drive and subjective well-being respectively. New evidence for a positive relationship between workaholism and well-being is supplemented by the result of this study.

What's more, individuals who take act due to enjoyment of work will experience complete voluntary and psychological

freedom, while individuals who act because of work drive will also feel internal pressure brought by obligations and significant meaning in addition to their subjective experience [6]. Therefore, enjoyment of work has a greater impact on well-being than work drive. Parker and other researchers also confirmed this perspective, that internal motivation makes employees have higher well-being than autonomous motivation. This is consistent with the conclusion of this study. The conclusion of this study clarifies the relationship between enjoyment of work and work drive as different components of workaholism and their relation with workaholism and well-being, which provides ideas and evidence for further understanding of the relationship between workaholism and well-being.

The fitting results of structural equation model illustrate that competence plays a mediation role between workaholism and well-being, which is consistent with the research hypothesis. Specifically, competence plays a completely mediating role between work drive and well-being, and a part of mediating role between enjoyment of work and well-being. The study found that the lack of experience in enjoyment of work and competence of workaholics is the internal reason of low well-being. The lack of enjoyment of work could directly explain the decrease of well-being, and additionally it can indirectly predict the well-being experience by influencing competence. Translated, the decrease of enjoyment of work will not only directly lead to the decrease of well-being, but also lead to the lower well-being by reducing the individual's competence experience. Work drive fails to directly affect well-being, but indirectly predict well-being through competence. It implies that the decrease of work drive may cause the decrease of well-being through the decrease of competence experience.

According to the self-determination theory, human beings are born with inner psychological needs and growing tendency. Whether the three basic inner psychological needs—competence needs, autonomy needs and relationship needs—are met or not will fundamentally affect individual well-being. When the basic internal psychological needs are satisfied to a certain extent, the individual will experience well-being, on the contrary, the individual shows an unsatisfactory psychological state or even morbid [20]. Workaholics usually are yearning for prestige, colleagues' respect, leaders' recognition, strong sense of mission and

responsibility, etc. [5]. They will choose the consistent investment in work as a manner to enhance self-esteem and reduce anxiety [1, 11]. Based on the internal pressure of task and mission, self-esteem improvement and value recognition, the work drive is formed through the spontaneous internalization of values and rules. This kind of autonomous motivation is necessary for individuals to stick to an activity for a long time. Although overwork that focuses on tasks for a long time will lead to the loss of personal time, space and even health, the positive experience that they feel in the process of work will bring them a sense of competence and achievement, which will in turn drive them to continue to invest more energy in the work to continuously obtain this sense of satisfaction and positive experience [16]. On the one hand, enjoyment of work meets the individual's independent needs, on the other hand, it is preferable to satisfy the individual's competency needs. Enjoyment of work attracts individual's participation and devotion by the interest provided by the activity itself. When an individual is completely immersed in a diverting and attractive task, this satisfaction of independent needs will bring a high degree of well-being experience to the individual [18]. At the same time, when an individual is engaged in work because of interest, it will promote the growth of individual's ability and enhance the experience of competence, to improve well-being through the satisfaction of competence needs.

To summarize, individuals with workaholic characteristics invest a huge quantity of life time in work, even at the cost of personal health and relationship quality. The reason is on one hand to obtain more satisfaction of competence [18], on the other hand, is to experience the satisfaction of independent needs in work. This is consistent with the conclusion of this study, which provides an explanation for why workaholics feel stronger level of well-being.

5.2. Theoretical and Practical Contributions

The theoretical contributions of this study are as followings: first, previous studies on workaholics mostly adopted composite scores of various dimensions or as type-variables, which may lead to the conflict of research conclusions between workaholism and well-being. This study contrasts and analyzes the influence of two different components, enjoyment of work and work drive on well-being, which provides a clarified explanation for the conflict of previous research conclusions. Secondly, this study is comparatively beneficial in understanding the mechanism of workaholism affecting well-being. Based on the self-determination theory, this paper puts forward the concept of competency as a mediator, which reveals the psychological process of workaholics to gain positive experience by satisfying the internal psychological needs of competency. This paper explains the relationship between workaholism and well-being under the perspective of motivation, clarifies its mechanism of action through the study of intermediary variables, and helps to further understand the psychological mechanism of workaholics.

The results of this study can be also taken by the enterprises

to improve their management regarding the following aspects. The study indicates that the competency experienced by workaholic employees is the key to affect their well-being. It can be shown that competence is an essential resource of an organization, and investment in developing the competence of employees is crucial within human resources management practices. Specifically, in the talent selection process, when the organization and the post itself have requirements for high work intensity, more attention should be paid to the candidate's self-efficacy characteristics and the degree of their consistency with the post, so as to improve the possibility of their high sense of achievement in the work. In the process of talent development, training resources are required to be offered to enhance the competence of the staff; for the leadership, the enterprise should focus on improving the leadership skills of positive management, and team leaders can enhance the competence of the staff by coaching the staff's ability, exploring the internal motivation and effective incentives. In addition, in terms of management environment, the organization should establish a timely and effective positive feedback mechanism on work performance, strengthen the implementation of the management team's positive feedback mechanism, and strive to create a growth culture rather than a pressure atmosphere within the organization, so as to promote the formation and improvement of employees' competence.

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