

# JOB AUTONOMY IN RELATION TO WORK ENGAGEMENT AND WORKAHOLISM: MEDIATION OF AUTONOMOUS AND CONTROLLED WORK MOTIVATION

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## Abstract

**Objectives:** This study integrates the Self Determination Theory and the Job Demands–Resource model in explaining motivational antecedents of 2 forms of excessive work: work engagement and workaholism. It specifically examines the relationship between job autonomy, situational work motivation, work engagement, and workaholism. **Material and Methods:** The sample comprised 318 full-time employees of an international outsourcing company located in Poland. The mediation analysis was used for testing hypotheses about the mediation of autonomous and controlled motivation in the relationship between job autonomy, work engagement, and workaholism. **Results:** The results have confirmed that autonomous motivation mediates the relationship between job autonomy and work engagement. The assumption about the mediation role of controlled motivation in the relationship between job autonomy and workaholism has not been confirmed; however, external regulation (i.e., controlled motivation) is a significant predictor of workaholism. **Conclusions:** Giving employees more job autonomy might increase their intrinsic and identified regulation and may therefore lead to more energetic, enthusiastic, and dedicated engagement with their jobs. Workaholism may be predicted by external regulation, and work characteristics other than job autonomy may play an important role in enhancing this controlled type of motivation. *Int J Occup Med Environ Health* 2018;31(4)

## Key words:

Workplace environment, Motivation, Work engagement, Occupational health, Professional autonomy, Workaholism

## INTRODUCTION

### Differences between work engagement and workaholism

Work engagement and workaholism have been both developed as constructs that characterize the qualities of hard work, long working hours that exceed job requirements, and strong dedication to work. However, researchers postulate that they should be distinguished and treated

as positive and negative constructs [1]. Although both are characterized as high activation states, work engagement and workaholism are related to pleasant and unpleasant emotions, respectively [2].

The most often used scientific definition of work engagement presents it as “[...] a positive fulfilling work-related state of mind characterized by vigor, dedication, and absorption” [3, p. 74]. These 3 qualities mean that engaged

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employees have high energy while working, are highly involved in work that is seen as significant and meaningful, and are fully concentrated on and happily engrossed in their work [2].

Little agreement exists on the definition of workaholism; however, most researchers associate it with heavy investment of both time and effort in work [4]. These qualities are conceptualized for instance by Schaufeli et al. [5] as working excessively and working compulsively. It should be noted that some researchers question the relevance of long working hours; therefore, they do not include this indicator in their measurement tools, e.g., the Work Addiction Risk Test [6] and the Workaholism Battery [7]. Thus, among others, a compulsive drive to work, which signifies that one has an internal feeling of pressure to work hard, is measured as a single indicator of workaholism in many studies [8]. The drive to work represents an obsession with work activities; this means that workaholics persistently think about work even when not working, and do not control their behavior.

The first difference between work engagement and drive to work is that engaged employees are not obsessed with their work. Engaged employees work because they like their jobs and get pleasure from their work [9]. They are located on a pleasant extreme with positive emotional states such as enthusiasm, enjoyment, pleasure, and happiness [10].

Secondly, engaged employees find meaning not only in their work but often indicate that their enthusiasm and energy also appear outside work [2]. For workaholics, who are obsessed with work activities, work is the primary domain from which they derive pleasure and meaning [4,11]. As outlined by Griffiths [12, p. 97]: “[...] someone is a workaholic when work and work-related concerns preoccupy a person’s life to the neglect of everything else in it.” The third difference between engaged employees and employees who are obsessed with working is that the former is able to relax after work without thinking about profes-

sional duties. Both types of employees do feel tired after a long day of hard work; however, workaholics cannot detach from work, they still think about work even when not working [13,14]. Andreassen et al. [15] suggest that workaholism impairs spare-time activities, and, as found by Machlowitz [11], who interviews workaholics, it is because they blur the distinction between business and pleasure. Fourthly, with sound empirical evidence, work engagement has been linked to many positive personal and organizational outcomes [16–18]. In contrast, research on workaholism is confusing and shows that it may have both positive and negative correlates [7,19–24].

### **Work engagement, workaholism, and types of motivation**

It is crucial to examine their underlying motivation of work engagement and workaholism, while taking into account the aforementioned differences. Previous research has shown that these constructs are associated with different qualities of motivation distinguished by the authors of the Self Determination Theory (SDT) [25]. According to them, motivation is located on a continuum between amotivation and intrinsic motivation. They have also distinguished regulatory processes that fall on this continuum. People are intrinsically motivated and intrinsically regulated when they do something because they find it interesting and derive spontaneous satisfaction from it; this is inherently autonomous motivation. Those who experience extrinsic motivation obtain satisfaction from the external consequences of an activity [26,27].

The 4 types of regulatory processes that represent extrinsic motivation are integrated motivation, identified regulation, introjected regulation, and external regulation; all differ in the level of internalization of extrinsic motivation. In the case of integrated regulation, actions that are initially taken for external reasons are fully congruent with the individual’s values and needs and are incorporated into the self. This regulation is autonomous or self-

determined. Identified regulation occurs when behavior is in line with personal goals and identities and is autonomous to some extent. Introjected regulation is moderately controlled motivation and refers to actions that are performed in order to gain external reward or to avoid punishment. External regulation occurs when people act to attain a desired consequence, such as tangible rewards or to avoid threatened punishment. This type of regulation is considered controlling.

It has been shown that in comparison to extrinsic motivation, intrinsic motivation is related to many positive aspects of well-being, such as higher work enjoyment and work engagement [28], lower level of fatigue and burn-out [29], lower level of anxiety [30], and physical symptoms [31]. The function of intrinsic work motivation is emphasized by Bakker et al. [32], who indicate that it is fundamental for the development of work engagement.

The study of van Beek et al. [33,34] has produced important results about differences in motivation between work engagement and workaholism. It has been shown that workaholic employees are driven by controlled as well as autonomous motivation (i.e., introjected and identified regulation, respectively) whereas work engaged employees are driven by autonomous motivation (i.e., intrinsic regulation). This relationship between workaholism and types of motivation is also confirmed in the study of Malinowska [35] who has found that cognitive indicators of workaholism are negatively related to autonomous motivational orientation and positively to impersonal motivational orientation. In other words, those who have a high level of drive to work, lack of control over work, and think a lot about it even when not working, experience a low level of competency and control over their behavior: they feel that they have neither a choice, nor influence on what they do.

Taken together, these findings confirm that engaged employees work hard because they genuinely want to whereas workaholics either want or should. However, the role

of the work environment and its characteristics in promoting autonomous and controlled motivation among work-engaged employees and workaholics have not been examined in this study. The role of work characteristics in relation to work engagement and workaholism will be discussed in the next part of the article.

### **Work engagement, workaholism, and work characteristics**

The role of work context in predicting work engagement has been confirmed in many studies that have used the Job Demands–Resources (JD–R) model [9]. This model has also been used in a few studies to analyze the relationship between work characteristic and workaholism. Work characteristics included in the model are categorized into 2 groups: demands and resources. Demands are work factors that require sustained physical and/or psychological effort or skills; they are not necessary negative but may become negative job stressors if an employee who encounters them fails to recover adequately [36]. Resources, in contrast, are those work factors that enable the achievement of work goals, stimulate personal growth, development, and learning, and serve as buffers because they reduce the negative effects of job demands [37]. Demands that have certain physiological and/or psychological costs initiate the health-impairment process whereas resources that have motivational potential lead to motivational processes.

In the previous research, it has been shown that resources that stimulate work engagement are job autonomy and variety, organizational support [38,39], work–life balance [40], perceived fit [41], distributive and procedural justice [42], and transformational leadership [43]. Two meta-analyses have confirmed the role of various resources (e.g., social support, autonomy, feedback from colleagues and supervisors, positive organizational climate, knowledge, job security) in stimulating work engagement [44,45].

Several cross-sectional and longitudinal studies have confirmed the impact of job demands on poor health [46,47].

For reviews, see Halbesleben and Buckley [48], Schaufeli and Enzmann [49], burnout – Bakker et al. [50], and absenteeism – Bakker et al. [51]. The research that analyzes the relationship between demands and workaholism has shown that specifically overwork, cognitive and emotional demands, and social stressors are positively related to workaholism [52]. Johnstone and Johnston [24] have shown that those who experience greater work pressure have also higher level of drive to work.

A number of studies have supported the dual pathways to employee well-being proposed by the JD-R model, however empirical studies to uncover the mechanism underlying the relationship between work characteristics and work engagement and workaholism are scarce [53–55].

### The present study

In the current study, we have followed the SDT's assumption that the quality of work motivation (autonomous or controlled) varies depending on the work environment [25]. This notion, which is continued in the JD-R model, also stems from classic job design theories that propose that particular work characteristics lead to intrinsic motivational states, which in turn enhance performance [56].

In this study, we have included job autonomy as a resource because this job feature occurs in the most prominent classic theories of work characteristics: the Job Demand Control Model [57], the Job Characteristic Theory [58]. Moreover, its role in promoting autonomous motivation and self-determined behavior has been proven in many pieces of research. For instance, Deci et al. [59] found in a laboratory study that an emphasis on choice rather than control led to autonomous motivation, which was measured as a greater amount of time spent on tasks by participants during a subsequent free-choice period. In addition, studies on university instructors [60], health care providers in medical clinics [61], and managers in companies [62] confirmed the findings that supporting autonomy leads

to higher autonomous behavior of students, health patients, and subordinates.

Based on the aforementioned research and other research on environments supportive of autonomy, Gagné and Deci [63, p. 338] concluded “[...] autonomy support is the most important social-contextual factor for predicting identification and integration, and thus autonomous behavior.”

Apparently, job autonomy has a solid base of support in the research. Its role in promoting work engagement has been proven in several studies [9,64–70]. In contrast, the research on the relationship between job autonomy and workaholism is limited. It has only been shown that those who have unfulfilled need for autonomy have a more compulsive drive to work [15]. Andreassen et al. [15] explain these findings by referring to SDT's assumption that unfulfilled need for self-determination at work may be compensated by hard, compulsive work [26].

This study examines job autonomy in relation to work engagement and workaholism. It is assumed that these relationships reflect motivational and health-impairment processes of the JD-R model, respectively. It aims to make a unique contribution to the literature by explaining these processes through autonomous and controlled motivation.

Therefore, the 2 following hypotheses have been developed:

- hypothesis 1: autonomous motivation mediates the relationship between job autonomy and work engagement,
- hypothesis 2: controlled motivation mediates the relationship between job autonomy and drive to work.

## MATERIAL AND METHODS

### Participants and procedure

The sample consisted of 318 participants employed in an international company located in Poland, that offered services in the Business Process Outsourcing (BPO) sector. A company in this sector was selected because ex-

cessive work and long working hours would be typical for the BPO sector [71].

Employees were contacted through the Human Resources manager of the company, who sent them an invitation to the study with a link to online questionnaires. All participants were informed about the confidentiality of their results. They could receive a summary of their results if they were interested in them. The study was held from November 2014 to December 2014.

Women accounted for 74% (N = 236) of the sample and men – for the remaining 26% (N = 82). The majority of women was typical for this sector [72]. The mean age of participants was 30.8 years old (standard deviation (SD) = 7.4) and ranged from 22 to 50 years old. The group included specialists (N = 119), senior specialists (N = 71), team leaders (N = 60), experts (N = 34), and managers (N = 34). The average job tenure was 5.29 years (SD = 6.01 years) whereas their total work experience was 7.96 years. The proportion of participants who were married was 51.2%, 19.8% had a partner, 25.8% were single and had never been married, and around 3% were divorced. On average, they worked 43 h/week (SD = 9.28 h/week).

### Measures

The following questionnaires were used in the study.

Work engagement was measured with the Utrecht Work Engagement Scale (UWES) [72]. A full version of this scale consists of 17 items (full version) and measures 3 aspects of work engagement: vigor, dedication, and absorption. During the Polish adaptation process, a 1-factor solution has better fit than the original 3-factorial structure [37]. In this study, we used a 9-item version that had good psychometric properties and assessed work engagement as a general construct. The items were scored on a 7-point scale (0 – never, 6 – every day). The scale reliability measured with Cronbach's  $\alpha$  was 0.97.

Workaholism was assessed with Workaholism Battery [7] that included 15 items and 3 scales: drive to work, work enjoyment, and work involvement. In this study, we have used only the drive to work scale because this workaholism indicator appears in most of definitions and conceptualizations. This 6-item scale measures an internal feeling of pressure and need to work, unrelated to external requirements, e.g., "I feel guilty when I take a day off." Each participant's task was to measure the level of the statement's conformity with his/her own beliefs on a 5-degree scale (1 – definitely agree, 5 – definitely disagree). Cronbach's  $\alpha$  for this scale was 0.79.

Job autonomy was measured with the "Autonomy" subscale of the Work Design Questionnaire (WDQ) [73]. The questionnaire was originally in English and was back translated into Polish by 2 independent experts. The job autonomy scale has 9 items, which are scored on a 5-degree scale (1 – definitely disagree, 5 – definitely agree). The scale reliability measured with Cronbach's  $\alpha$  was 0.88.

Autonomous and controlled work motivation was assessed with the Situational Intrinsic Motivation Scale (SIMS) developed by Guay et al. [74]. The scale was back translated by 3 experts. The total scale consists of 16 items. The participants' task was to measure on a 7-degree scale (1 – definitely disagree, 7 – definitely agree) the level of statements' conformity with their beliefs about the reason why he/she is currently engaged in work activity. The scale includes 4 subscales, each measured with 4 items: internal regulation (e.g., „Because I think that this activity is good for me,”  $\alpha = 0.91$ ); identified regulation (e.g., „Because I believe that this activity is important for me,”  $\alpha = 0.75$ ); external regulation (e.g., „Because I don't have any choice,”  $\alpha = 0.6$ ); and amotivation (e.g., „I do this activity, but I am not sure it is a good thing to pursue it,”  $\alpha = 0.77$ ). In the analysis, the first 3 aforementioned subscales were included to test the hypotheses.

**Table 1.** Descriptive statistics of the relationship between job autonomy, work motivation, work engagement, and workaholism among full-time employees (N = 318) of an international outsourcing company, Poland

Variable	M	SD	Pearson's correlations						
			1	2	3	4	5	6	
1. Work engagement	3.45	0.88	–						
2. Drive to work	18.30	4.82	–0.27**	–					
3. Internal motivation	4.38	1.27	0.76**	–0.08	–				
4. Identified regulation	4.82	1.05	0.63**	–0.21**	0.74**	–			
5. External regulation	4.44	0.90	0.26**	–0.31**	0.28**	0.52**	–		
6. Job autonomy	3.59	0.71	0.53**	–0.11*	0.54**	0.40**	0.11**	–	

M – mean; SD – standard deviation.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

## RESULTS

Descriptive statistics of the study variables and their intercorrelations (Pearson's  $r$ ) are presented in the Table 1.

### Mediation analysis

The hypotheses were tested by computing Hayes's test [75]. The summary of the regression analysis for internal motivation and job autonomy predicting work engagement is presented in the Table 2.

The regression analysis has shown that job autonomy is a significant predictor of intrinsic regulation:  $b = 0.97$ ,  $t = 11.3$ ,  $p < 0.001$  (Fig. 1). The value of  $R^2 = 0.29$  means that job autonomy explains 29% of the variance in intrinsic

regulation. In addition, the regression analysis has shown that intrinsic regulation is a significant predictor of work engagement:  $b = 0.47$ ,  $t = 16.03$ ,  $p < 0.001$ . Job autonomy is also a significant predictor when intrinsic regulation is included in the model:  $b = 0.21$ ,  $t = 3.99$ ,  $p = 0.001$ . Both job autonomy and intrinsic regulation explain 60% of the variance in work engagement:  $R^2 = 0.6$ ,  $p < 0.001$ . The total effect model indicates that job autonomy predicts work engagement, even when intrinsic regulation is not included in the model:  $b = 0.66$ ,  $t = 11.09$ ,  $R^2 = 0.28$ ,  $p < 0.001$ . The indirect effect indicates that intrinsic regulation is a significant mediator in the analyzed relationship. With 95% confidence, we can assume that this result

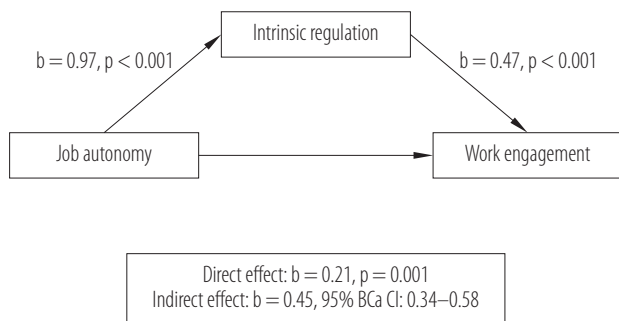
**Table 2.** Regression analysis for internal motivation and job autonomy predicting work engagement among full-time employees (N = 318) of an international outsourcing company, Poland

Predictor	$\beta$		
	model 1	model 2	model 3
Internal motivation	0.764***		0.673***
Job autonomy		0.530***	0.169***
$R^2$	0.583	0.281	0.604
F	443.965***	123.780***	240.719***

$R^2$  – coefficient of determination; F – test of overall significance,  $\beta$  – standardized regression coefficient.

Model 1 – predictors: internal motivation; model 2 – predictors: job autonomy; model 3 – predictors: internal motivation, job autonomy.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .



BCa CI – bias-corrected and accelerated confidence interval.

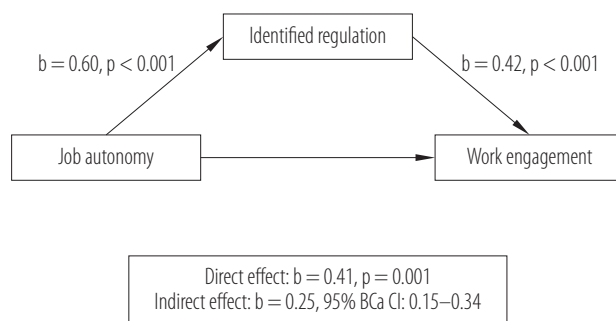
**Fig. 1.** Mediation analysis with intrinsic regulation mediating the relationship between job autonomy and work engagement among full-time employees (N = 318) of an international outsourcing company, Poland

is significant:  $b = 0.45$ , 95% bias-corrected and accelerated confidence interval (BCa CI): 0.34–0.58,  $K^2 = 0.38$ , 95% BCa CI: 0.29–0.45. Regarding the effect size, we refer to Preacher and Kelly [76, p. 107], who recommend using  $K^2$ : „the benefits of using  $K^2$  are that it is standardized, in the sense that its value is not wedded to the particular scale used in the mediation analysis; it is on an interpretable metric (0–1); it is insensitive to sample size; and with bootstrap methods, it allows for the construction of confidence intervals.” They suggest interpreting it as the proportion of the maximum possible indirect effect that could have occurred and, following Cohen’s guidelines, define small, medium, and

large effect sizes as 0.01, 0.09, and 0.25. We can interpret the indirect effect as being about 38% of the maximum value that it could have been and this is a strong mediation effect.

The summary of the regression analysis for identified regulation and job autonomy predicting work engagement is presented in the Table 3.

The regression analysis shows that job autonomy is a significant predictor of identified regulation  $b = 0.60$ ,  $t = 7.78$ ,  $p < 0.001$ ,  $R^2 = 0.16$  and explains 16% of the variance in identified regulation (Fig. 2). Identified regulation is a significant predictor of work engagement:  $b = 0.42$ ,  $t = 11.25$ ,



BCa CI – bias-corrected and accelerated confidence interval.

**Fig. 2.** Mediation analysis with identified regulation mediating the relationship between job autonomy and work engagement among full-time employees (N = 318) of an international outsourcing company, Poland

**Table 3.** Regression analysis for identified regulation and job autonomy predicting work engagement among full-time employees (N = 318) of an international outsourcing company, Poland

Predictor	$\beta$		
	model 1	model 2	model 3
Identified regulation	0.629***		0.496***
Job autonomy		0.530***	0.331***
R <sup>2</sup>	0.395	0.281	0.487
F	207.332***	123.780***	150.048***

Model 1 – predictors: identified regulation; model 2 – predictors: job autonomy; model 3 – predictors: identified regulation, job autonomy.

Abbreviations as in Table 2.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

**Table 4.** Regression analysis for external regulation and job autonomy predicting drive to work among full-time employees (N = 318) of an international outsourcing company, Poland

Predictor	$\beta$		
	model 1	model 2	model 3
External regulation	-0.308***		-0.079
Job autonomy		-0.112*	-0.299*
R <sup>2</sup>	0.095	0.013	0.101
F	33.121***	4.031*	7.690***

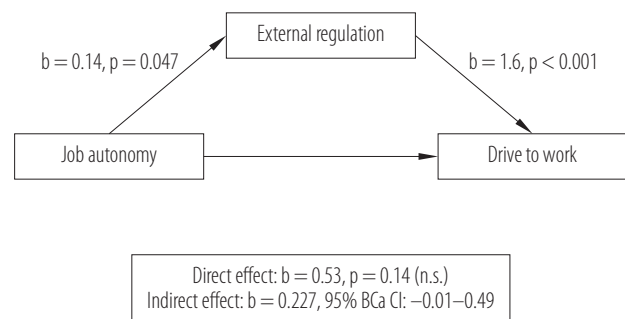
Model 1 – predictors: external regulation; model 2 – predictors: job autonomy; model 3 – predictors: external regulation, job autonomy. Abbreviations as in Table 2.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

$p < 0.001$ . Job autonomy is still a significant predictor even when identified regulation is included in the model:  $b = 0.41$ ,  $t = 7.50$ ,  $p < 0.001$ . Both job autonomy and identified regulation explain 48% of the variance in work engagement:  $R^2 = 0.48$ ,  $p < 0.001$ . The total effect model indicates that job autonomy predicts work engagement even when identified regulation is included in the model:  $b = 0.66$ ,  $t = 11.09$ ,  $R^2 = 0.28$ ,  $p < 0.001$ . A mediation effect in the relationship between job autonomy and work engagement is observed, which is mediated by identified regulation:  $b = 0.25$ , 95% BCa CI: 0.15–0.34. It is represented by the results  $K^2 = 0.22$ , 95% BCa CI: 0.14–0.28.  $K^2 = 0.22$  means that it is at least an average mediation effect. Hypothesis 1 has been confirmed.

The summary of the regression analysis for external regulation and job autonomy predicting drive to work is presented in the Table 4.

The regression analysis shows a significant influence of job autonomy on external regulation:  $b = 0.14$ ,  $t = 2.00$ ,  $p = 0.047$  (Fig. 3). The value of  $R^2 = 0.01$  means that job autonomy explains only 1% of the variance in external regulation. In addition, the regression analysis indicates that external regulation is an important predictor of compulsive drive to work:  $b = 1.60$ ,  $t = 5.56$ ,  $p < 0.001$ . When adding external regulation as a mediator, the relationship between job autonomy and compulsive drive to work is insignifi-



n.s. – not statistically significant; BCa CI – bias-corrected and accelerated confidence interval.

**Fig. 3.** Mediation analysis with external regulation mediating the relationship between job autonomy and drive to work among full-time employees (N = 318) of an international outsourcing company, Poland

cant:  $b = 0.53$ ,  $t = 1.47$ ,  $p = 0.14$ . This relationship without a mediator is significant:  $b = 0.77$ ,  $t = 2.00$ ,  $p = 0.045$ . The results  $b = 0.227$ ,  $p = 0.06$ , 95% BCa CI: -0.01–0.49 indicate that external regulation is not a significant mediator of the relationship between job autonomy and drive to work. The result  $K^2 = 0.03$ , 95% BCa CI: 0.00–0.07 signifies that the effect is insignificant. Hypothesis 2 has not been confirmed.

## DISCUSSION

This study has focused on the relationship between types of situational work motivation, job autonomy,



and 2 forms of excessive work. Our aim has been to uncover differences between work engagement and workaholism with regard to their individual and situational motivational characteristics.

Firstly, we have hypothesized that autonomous work motivation mediates between job autonomy and work engagement. Our results have confirmed that intrinsic regulation is a significant mediator in this relationship. The study, therefore, provides an explanation that work engagement may occur as a result of intrinsic regulation which comes from autonomy at work. This means that an opportunity to have a choice in one's job enhances engaging in tasks for its own sake and makes employees experience their job as interesting and satisfying. The strength of this mediator may signify that internal regulation plays a key role in this relationship.

Moreover, it has also been shown that identified regulation also explains the relationship between job autonomy and work engagement. However, the strength of this mediator is weaker as compared to intrinsic regulation. According to Deci and Ryan [26], identified regulation is a form of moderately autonomous motivation. In this case, job autonomy allows one's work to be perceived as important and congruent with one's values. Although some tasks at work are not enjoyable, they might be done with high energy, effort, and strong involvement because employees identify themselves with the value and goals that underlie their jobs. Other authors [34] have also supported the positive relationship between work engagement and intrinsic regulation as well as between work engagement and identified regulation, and introjected regulation. This indicates that engaged employees are motivated by both inherently autonomous and moderately autonomous motivation. The main contribution of this study is that it demonstrates that intrinsic regulation and identified regulation are mediators that become the result of giving employees more autonomy in their jobs.

Secondly, the hypothesis about a mediative role of controlled motivation in the relationship between job auton-

omy and workaholism has not been supported. Job autonomy is weakly and positively correlated to workaholism; however, this relationship is non-significant when adding external regulation as a mediator to the model. This merits further investigation; perhaps other work characteristics (e.g., work pressure) are more important for fostering workaholism through external regulation. The results of the regression analysis also indicate that workaholism could be predicted by external regulation. Since external regulation refers to controlled motivation, it signifies that the source of workaholic behavior is seen as not congruent with one's self. It may be assumed that workaholic employees are driven by internal obligations, punishments, and rewards that may have both an internal and external character.

Van Vije et al. [77] have similarly found that workaholics continue their work because they want to live up to their own and other's expectations. It has also been shown that activities that are taken to avoid unpleasant emotions, to defend ego, or maintain high status might increase internal pressure to work hard [26,33]. Our finding is in line with the results of another study [78] in which controlled motivation is positively related to the compulsive aspect of workaholism. Both studies explain that workaholics are concerned more about external or internal rewards and punishments than about the pleasure obtained from the work itself. In our study, we attempt to analyze controlled motivation as a mediation mechanism between job autonomy and workaholism; however, in the study by Van den Broeck et al. [78], the emphasis was on the role of this type of motivation in explaining the relationship between workaholism and exhaustion.

### Limitations and future research directions

Some limitations of the study should be mentioned. First, we have analyzed job autonomy as a sole work characteristic in relation to work engagement and workaholism. Other important resources and demands should be in-

corporated into future studies (e.g., work pressure, social support, and overload). Secondly, cross-sectional data has been used for testing mediation relationships between variables; this has to be improved in the future by using a longitudinal approach and measurement done at least twice or during a specific period (e.g., a few consecutive days). Thirdly, we have used only self-reports. This might be complemented in future studies by observations or reports from co-workers about working styles.

## CONCLUSIONS

Overall, our study contributes to the existing literature by explaining work engagement through mediation of autonomous work motivation enhanced by job autonomy and workaholism by controlled motivation. From a practical perspective, this study suggests that giving employees more job autonomy may increase their intrinsic regulation and identified regulation, thus leading to more energetic, enthusiastic, and dedicated work. In case of workaholism, which may be predicted by external regulation, work characteristics other than job autonomy may play an important role in enhancing this controlled type of motivation.

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