

A Study on the Impact of Overtime Work on the Well-being of Young Employees

-- An Empirical Analysis Based on CLDS (2018) Data

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Abstract: This study first collects the current status of overtime labor and well-being among young employees through literature research, based on which three research hypotheses are proposed. Secondly, in terms of empirical research, relying on the database of the Chinese Labor-force Dynamics Survey (CLDS) in 2018, this paper constructs a linear regression model and a moderation effect model to investigate the impact of overtime labor on the well-being of young employees and the moderating role of job autonomy between the two. Finally, the research findings indicate that: firstly, overtime labor has a negative effect on the well-being of young employees; secondly, there is a significant positive relationship between job autonomy and well-being; thirdly, job autonomy mitigates the negative impact of overtime labor on the well-being of young employees. Therefore, this study aims to provide relevant policy suggestions from multiple aspects to enhance the well-being of workers, reduce the adverse effects of overtime labor on young employees, safeguard their legitimate rights and interests, improve their working environment and quality of life, and ultimately achieve mutual benefit and win-win results for both employers and employees.

Keywords: Overtime labor; Job autonomy; Young employees

1. Literature Review and Research Hypotheses

1.1 Overtime Work and Employee Well-being

Three explanatory mechanisms are prevalent in the research on overtime work and well-being: firstly, displacement. Prolonged working hours and overtime^[1] displace employees' leisure time, leading to "chronic fatigue"^[2], which subsequently reduces their quality of life^[3]. Secondly, physical impairment. Excessive labor is detrimental to health, increasing hospitalization rates^[4] and negatively impacting well-being. Thirdly, income equity. Widened income disparities^[5] and low returns make employees feel physically and mentally exhausted, further exacerbating feelings of unfairness^[6]. Based on these, the first research hypothesis is proposed.

Hypothesis 1: Overtime work has a negative impact on the well-being of young employees.

1.2 Job Autonomy and Well-being

The autonomy theory suggests that individuals with high job autonomy are more likely to experience internal control, fostering a sense of responsibility and professional identity, thereby making work more enjoyable and enhancing overall well-being. Consequently, the second research hypothesis is formulated.

Hypothesis 2: The higher the degree of job autonomy, the stronger the well-being of young employees.

Existing research indicates that high job autonomy provides young employees with a more flexible work environment and better resources, transforming passive work into active pursuit of value and mitigating the adverse effects of overtime work on well-being. Therefore, the third research hypothesis is proposed.

Hypothesis 3: The degree of job autonomy moderates the impact of overtime work on the well-being of young employees.

2. Research Design

2.1 Data Sources and Processing

2.1.1 Data Sources

The data for this study are derived from the Chinese Labor-force Dynamics Survey (CLDS) conducted in 2018. This database focuses on the labor force aged 15 to 64 in both urban and rural areas across China, covering data from 29 provinces nationwide.

2.1.2 Sample Selection

The study targets young employees aged between 15 and 35 years. After excluding irrelevant samples and missing values, a total of 2012 statistical samples were obtained.

2.1.3 Data Processing

(1) **Dependent Variable:** The dependent variable in this study is well-being. The measurements related to well-being, namely, "Overall, do you consider your life happy?", "Generally speaking, are you satisfied with your living conditions?", and "Generally speaking, are you satisfied with your family situation?", were scored from 1 to 5, with higher scores indicating greater happiness. These scores were then summed to create a continuous variable ranging from 3 to 15, where higher numbers signify stronger feelings of well-being.

(2) **Independent Variable:** The independent variable is overtime labor hours among young employees. This information was gathered by asking respondents, "How many hours do you usually work per week in your current or most recent job?" The difference between the reported average weekly working hours and the legally prescribed 40 hours was calculated to determine overtime labor.

(3) **Moderator Variable:** "Job autonomy" was chosen as the moderator variable. The degree of job autonomy was assessed based on respondents' ratings of the extent to which they determined "the content of work tasks," "scheduling of work progress," and "workload/intensity." Responses of "completely self-determined," "partially self-determined," and "completely determined by others" were assigned scores of 3, 2, and 1, respectively. Summing these three scores provided a quantitative measure of job autonomy for each young employee. Higher scores indicate greater perceived autonomy in the workplace, and vice versa.

(4) **Control Variables:** The control variables included gender, age, income, education level, marital status, political affiliation, and household registration status. Specifically, females were coded as 0 and males as 1; individuals with less than college education were coded as 0 and those with college or higher education as 1; unmarried individuals were coded as 0 and married individuals as 1.

2.2 Model Construction

Based on the research objectives and hypotheses of this paper, the following two empirical models will be constructed:

1. Multiple Linear Regression Model for the Impact of Overtime Work on the Well-being of Young Employees

$$Y = \beta_0 + \beta_1 * overtime_i + \beta_2 * x_{1i} + \varepsilon_i$$

2. Moderating Effect Testing Model for Job Autonomy

$$Y = \beta_0 + \beta_1 * overtime_i + \beta_2 * aut_i + \beta_3 * overtime_i * aut_i + \beta_4 * x_{1i} + \varepsilon_i$$

3. Regression Analysis

3.1 Full-Sample Regression Analysis

Table 1 presents the full-sample regression results examining the impact of overtime work on the well-being of young employees. In the overtime work model, the results reveal a significant negative correlation between age and well-being among young employees, indicating that well-being decreases as age advances. This aligns with reality, as younger workers tend to have more enthusiasm and happiness when they first enter the workforce, which gradually diminishes with the increasing burden of life and work pressure. Marital status is significantly positively correlated with well-being, suggesting that married young employees enjoy higher levels of happiness due to mutual support. Educational attainment also demonstrates a significant positive correlation with well-being, indicating that highly educated young employees are more likely to secure satisfying jobs. Income is positively related to well-being, with higher income correlating with greater happiness. Additionally, gender does not exhibit a significant impact on well-being.

Overtime work hours pass the significance test at the 5% level, indicating a significant negative effect of overtime work on the well-being of young employees. These findings confirm the inhibitory role of overtime work on the well-being of young employees.

3.2 Analysis of the Moderating Effect of Job Autonomy

This study incorporates job autonomy as a moderating variable by constructing an interaction term between overtime work hours and job autonomy, which is then included in the regression equation. The significance of the regression coefficient of the interaction term is used to assess the moderating effect of job autonomy.

As shown in Table 1, the job autonomy model reveals that job autonomy is significant at the 5% level and exhibits a significant positive correlation with well-being. The moderation model indicates that the job autonomy variable passes the significance test at the 1% level. The regression coefficient of the newly introduced interaction term approaches significance at the 10% level, demonstrating that job autonomy exerts a moderating effect on the relationship between overtime work and well-being among young employees.

Furthermore, this paper employs simple slope analysis to intuitively reflect the moderating effect of varying degrees of job autonomy. With an increase in job autonomy, under high job autonomy, while overtime work still exerts a negative impact on the well-being of young employees, the degree of this impact is smaller compared to when job autonomy is low. This indicates that an increase in job autonomy can

Table 1: Regression Results

Variable name	overtime labor model	job autonomy model	moderation model
Gender	0.0561	0.0221	0.0508
	(0.1065)	(0.1059)	(0.1064)
Age	-0.0523***	-0.0528***	-0.0543***
	(0.0138)	(0.0138)	(0.0138)
Marital Status	0.3457***	0.3127**	0.3236***
	(0.1246)	(0.1247)	(0.1246)
Education Level	0.4214***	0.5120***	0.4377***
	(0.1263)	(0.1234)	(0.1266)
Income (Logarithm)	0.2292***	0.2148***	0.2303***
	(0.0559)	(0.0554)	(0.0558)
Overtime Work Hours	-0.0078**		-0.0100***
	(0.0037)		(0.0039)
Job Autonomy		0.0611**	0.0659***
		(0.0251)	(0.0252)
Overtime Work Hours × Job Autonomy			0.0022*
			(0.0017)
Constant	9.6498***	9.3276***	9.6040***
	(0.6103)	(0.6261)	(0.6114)
N	2012	2012	2012
Adj-R2	0.0317	0.0324	0.0349
F	9.2199	9.4256	8.2807

*Note: Standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.*

indeed moderately mitigate some of the negative effects of overtime work on the well-being of young employees.

4. Conclusion and Countermeasures

The findings of this study reveal that overtime work significantly reduces the well-being of young employees, while job autonomy is positively correlated with well-being and can mitigate the adverse effects of overtime work. Based on these findings, the government and enterprises should develop flexible and humanized policies to reduce overtime hours and encourage flexible work arrangements; promote work-life balance; strengthen the protection of labor rights, with the government strictly enforcing labor laws and establishing effective complaint and rights protection channels; enterprises should encourage workers' participation in decision-making to enhance their sense of belonging and satisfaction in their work.

In summary, it is crucial to enhance workers' well-being from multiple aspects, reduce the adverse effects of overtime work, and at the same time draw society's attention to the working environment and quality of life of young employees, thereby promoting joint improvement in society.

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