

## The Antecedents of Employees' Mental Health: An Empirical Analysis

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### Abstract

This study explores the relationship between various work-related factors and employee mental health in Pakistan's banking sector. Data were collected from 173 employees through a survey using probability sampling and analyzed with SPSS. The findings reveal that workplace factors such as overtime, work pressure, and intensive work negatively affect employees' mental health, while control over working hours has no significant impact. The study concludes with implications and suggestions for future research.

**Keywords:** Intensive Work, mental health, overtime work, pressure to work, workload intensity.

## **Introduction**

Common mental health conditions such as stress, anxiety, and depression are increasingly prevalent due to work-related disabilities and a diminished quality of life among working-age individuals (Loncar, 2006). Research across various countries has reported a rise in work-related stress (Ross, Strevel & Javadizadeh, 2021; Fayoud, Orebi & Elshnoudy, 2024), highlighting mental disorders, particularly depression, as significant contributors to early retirement and work-related disabilities. A substantial number of employees continue to work overtime under intense workloads, which has been identified as a key factor contributing to mental health disorders (Wang, Lin & Chuan, 2024).

In today's fast-paced environment, the demand for high productivity and cost efficiency has led enterprises to rely heavily on excessive overtime to meet operational demands, creating a complex issue (Fayoud et al., 2024). While extended working hours are often justified by the need to remain competitive and maximize profits, concerns about the impact on employees' mental health are growing (Leka, 2022). Understanding the psychological repercussions of excessive working hours is crucial, and the need for policies that safeguard employees' mental well-being is increasingly recognized (Furihata, 2021).

This study aims to investigate the relationship between various work-related factors and their impact on employee mental health. It explores how factors such as control over working hours, perceived pressure to work, and workload intensity influence mental well-being. Specifically, the research examines the effects of overtime across different industries, focusing on its impact on depression, anxiety, stress, sleep disturbances, and other mental health indicators. The study's objectives are as follows:

- To examine the impact of overtime hours on employees' mental health.
- To assess the impact of control over working hours on employees' mental health.
- To investigate the impact of pressure to work excessive hours on employees' mental health.
- To analyze the impact of workload intensity on employees' mental health.

## **Literature Review**

This study examines how overtime, extended work hours, and long commutes affect the likelihood of work-related injuries and psychological or physiological illnesses among employed adults (Wang et al., 2024). Jobs with overtime schedules are linked to higher rates of work-related injuries compared to those without such structures (Ross et al., 2021). Employees working more than eight hours a day or at least 60 hours a week face increased health risks (Azevedo, Medina & Bagwell, 2020), with the risk escalating in proportion to the number of hours worked (Skeen, Kleintjes, Lund, Petersen, Bhana, & Flisher, 2010; Wong, 2019).

According to the Conservation of Resources (CoR) theory, resource loss causes more stress than resource gain, making the effects of long working hours on occupational health a significant concern (Fayoud et al., 2024). Extended working hours drain energy, leaving little for non-work

activities. Poor mental health is associated with conditions affecting mental, physiological, and behavioral health (Azevedo et al., 2020). Short sleep duration, fatigue, and sleep disturbances, resulting from intense workloads and long hours, are particularly linked to mental and physical health issues (Wang et al., 2024). Sleep duration, in particular, is strongly associated with prolonged working hours (Ross et al., 2021). Consequently, long weekly working hours are an indicator of various health problems (Leka, 2022). Therefore, reinforced management strategies to protect employees working overtime are crucial (Kapo Wong, 2019). This leads to the hypothesis:

H1: The number of overtime hours worked has a negative impact on mental health.

Control over working hours is often not within an employee's power, and overtime typically involves exceeding a 40-hour workweek or working shifts longer than eight hours (Ross et al., 2021). Consistently working long hours without options like flexible hours can negatively impact overall health, including mental well-being (Rafique, Jaffar & Ahmed, 2024). According to CoR theory, external pressures and internal challenges that lead to excessive work hours can result in a loss of cognitive and time-related resources (Leka, 2024), causing stress and deteriorating mental health. Extended work hours, particularly 12-hour shifts combined with more than 40 hours per week, have been shown to significantly increase the likelihood of injuries and poor health outcomes (Fayoud et al., 2024). The risk of depression, anxiety, and other mental health issues increases with prolonged work hours (Rafique et al., 2024), highlighting the need to address excessive work hours as a significant factor in employee mental health (Nakayama, 2013). Therefore, it is hypothesized that:

H2: An individual's control over their working hours has a negative impact on mental health.

When work demands exceed regular hours, sleep deprivation, cognitive impairments, physical health issues, and emotional strain often follow (Skeen et al., 2010). Studies have shown that pressure to work overtime, whether from internal or external sources, negatively impacts work-life balance and mental health (Fayoud et al., 2024). Employees under work pressure experience fatigue, slow recovery, burnout, and negative work-home interference, particularly when combining extended hours with demanding conditions (Wang et al., 2024). Even small amounts of involuntary overtime can significantly impact mental health, especially in low-reward environments (Kouvonen, 2005). The combination of long hours, job rewards, and pressure heightens negative mental health outcomes (Wang et al., 2024). Based on these findings, the hypothesis is:

H3: Perceived pressure to work has a negative impact on mental health.

The importance of balancing work hours with adequate recovery time to prevent long-term psychological harm is well-documented (Alshibani, Kristoffersen & Volery, 2024). Extended

working hours are linked to immediate and lasting psychological damage. The absence of sufficient recovery time exacerbates psychological stress and demands (Skeen et al., 2010). The relationship between intensive work and adverse health outcomes, both physical and psychological, is a long-standing concern (Frieriro, Diego & Arias, 2021). CoR theory suggests that work that depletes an individual's energy induces stress, leading to unhealthy behaviors and negative health consequences (Alshibani et al., 2024). While moderate overtime may not pose significant health risks, excessive work and rising demands increase these risks, emphasizing the need for caution in stressful jobs to protect against potential health issues (Taris et al., 2011). Therefore, the hypothesis is:

H4: Workload intensity has a negative impact on mental health.

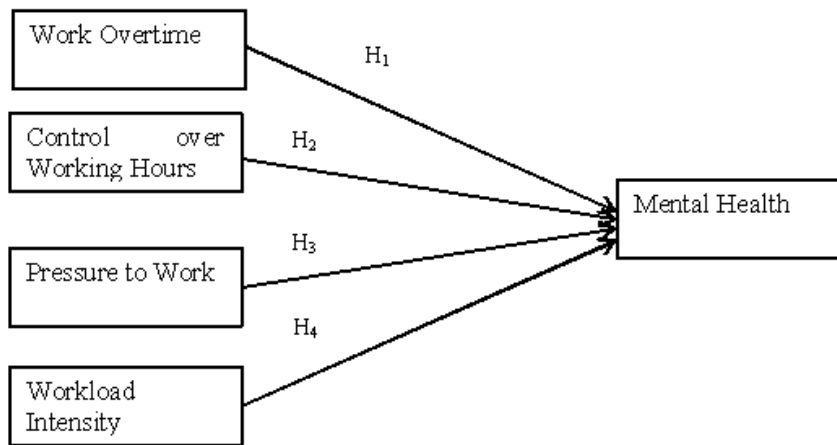


Figure 1: Conceptual Framework of the Study

## Methodology

### Data Collection

Primary data was collected through a self-administered questionnaire distributed to participants. This method was chosen to directly capture and assess respondents' perspectives on the relationship between excessive overtime work and related factors, and their impact on employees' mental health. To acquire primary data, a self-administered survey questionnaire using paper and pencil questionnaire was distributed amongst participants. The rationale behind choosing this method was to directly analyze and assess respondents' viewpoints regarding the relationship between excessive overtime work and related factors and its impact on an employees' mental health.

### Scales

This research was subjected to multiple independent variables and a dependent variable in order to analyze the dogma revolving around overtime work and its impact on mental health. Workload intensity was measured by five item scale by Bohle, P., Willaby, H., Quinlan, M., & McNamara, M. (2011). Items included, "My current workload is too high". Pressure to work and work

overtime were adopted from Hulst & Geurts (2001). Pressure to work, three item scale included “How often does your direct superior expect you to work overtime?” overtime included items like, “On average, how many hours a week do you work overtime?” Control over working hours was from (Burke & McAteer, 2016). Charls (2018) is a questionnaire to measure mental health. It was adapted for the study with 1 indicating worst mental health to 5 indicating best mental health. It was a 10 item questionnaire. Sample included, “How much of the time, during the past month, you felt calm and peaceful?”

### **Sample and Sample Characteristics**

This research utilized multiple independent variables and one dependent variable to analyze the effects of overtime work on mental health. Workload intensity was measured using a five-item scale developed by Bohle, Willaby, Quinlan, and McNamara (2011), with items like "My current workload is too high." Pressure to work and work overtime were measured using a three-item scale adapted from Hulst & Geurts (2001), including items like "How often does your direct superior expect you to work overtime?" and "On average, how many hours a week do you work overtime?" Control over working hours was assessed using a scale by Burke & McAteer (2016).

Mental health was measured using a 10-item questionnaire adapted from Charls (2018), with responses ranging from 1 (indicating worst mental health) to 5 (indicating best mental health). A sample item from this questionnaire included, "How much of the time, during the past month, did you feel calm and peaceful?"

### **Sampling Technique**

A self-administered questionnaire using a five-point Likert scale was employed to gather data on individuals' perceptions of overtime and other related factors, and their impact on mental health. The population framework was obtained from the Bureau of Statistics and publicly available records of commercial banks and their branches. A probability sampling technique was used to select five commercial banks randomly. Subsequently, branches from each selected bank were also chosen randomly based on the same population frame.

At the final stage, employees were randomly selected from the available lists at each branch to be included in the sample. Although the initial selection of banks and branches involved random sampling, data collection at the branch level was conducted using a non-probability method known as convenience sampling. This approach was chosen due to the willingness of employees to participate in the study.

### **Data Analysis**

Specific statistical techniques are used to measure all aforementioned variables in this study, notably, regression and a reliability test via SPSS.

### **Results**

The results of the data analysis are as under:

#### **Descriptive Analysis**

Table 1 shows the mean, standard deviation, and reliability and correlation measures of the variables. The values of chronbach alpha given on the diagonal are all greater than the threshold value of 0.7. MH was significantly correlated with PTW ( $\beta=0.51$ ,  $p<0.01$ ) and WLI ( $\beta=0.33$ ,  $p<0.01$ ) and WOT ( $\beta=0.11$ ,  $p<0.05$ ). The bold values on the diagonal represent the chronbach alpha, the reliability of the scale items. All the values are above the minimum threshold of 0.7.

**Table 1: Mean, standard deviation, reliability and correlations**

Variable	Mean	SD	Gender	Age	Tenure	Education	PTW	WLI	WOT	COWH	MH
Gender	0.54	0.3									
Age	35.51	7.03	-.05								
Tenure	3.43	0.49	-.04	-.11							
Education	3.42	0.69	-.07	-.19	0.11						
PTW	3.54	0.73	0.06	-.23*	-.21**	-.15**	<b>0.79</b>				
WLI	3.67	0.79	0.08	-.17	0.03*	0.25	0.03**	<b>0.87</b>			
WOT	2.49	1.23	0.08	-.07	0.02	-.01	0.16**	0.17**	<b>0.77</b>		
COWH	3.27	0.91	0.05	-.04	0.03	-.02	-	0.07	0.08	<b>0.76</b>	
MH	3.61	0.93	0.06	-	0.04	0.05	0.12**	0.33**	0.11**	0.14	<b>0.86</b>

Note: N=173. \* $p<0.05$ , \*\* $p<0.01$ . MH=Mental Health, COWH=Control Over Working Hours, WOT=Work OverTime, WLI=Working Long Hours, PTW=Pressure To Work.

**Table 2: Linear Regression**

	Unstandardized Coefficients		Standardized Coefficients		t
	B	SE	$\beta$		
(Constant)	2.88	.22			12.71
PTW	.074	.03	.12**		2.46
COWH	.099	.07	-.14		-1.41
WLI	.020	.01	.03**		2.01
WOT	.100	.05	.16**		1.96

Note: N=173. \* $p<0.05$ , \*\* $p<0.01$ . COWH=Control Over Working Hours, WOT=Work OverTime, WLI=Working Long Hours, PTW=Pressure To Work.

Table 2 shows the results of linear regression. COWH has no significant relation with mental health. PTW, WLI and WOT have positive and significant relationship with the dependent variable, i.e., mental health.

## Discussion

The study aimed to explore the complex interplay between excessive overtime work and mental health by examining multiple variables. Data analysis using SPSS revealed statistically significant evidence supporting a direct relationship between overtime work, workload intensity, and pressure to work extended hours on employees' mental health, with the exception of control over working hours, which showed no significant impact.

Consistent with prior research, this study reinforces the notion that overtime work is perceived by many as a mental health hazard, with extended work hours, workplace pressure, and high-intensity workloads contributing to adverse mental health outcomes. Among the sampled population, these

factors—overtime, workload intensity, and pressure to work extended hours—were found to have a notable impact on employees' mental well-being, underscoring the critical need for addressing these issues in workplace policies and practices.

### **Limitations and Future Research Directions**

Despite the findings are in line with the previous research that extends the generalizability and replicability of the previous studies, this study has few limitations. First, it's a cross-sectional study. In future, study may be conducted in longitudinal settings. Second, the study was conducted in only one sector, which may reduce the external validity of the study. However, further studies may be conducted in other sectors including manufacturing and services industry to enhance the generalizability of the results. Third, data was collected from single source. Future studies may focus on more complex study designs involving multi-source data to further strengthen the findings. Fourth, although some may consider these factors as a hindrance, the research assessed that all studied variables like overtime, extended hours, work-load intensity, and pressure to work extended hours, may contribute to one's distorted mental well-being. However, there can be other variables that may contribute as much that may lead to an employee experiencing stress, anxiety and burnout.

### **Theoretical and Practical Implications**

While the findings of this study align with previous research, thereby extending the generalizability and replicability of earlier studies, several limitations must be acknowledged. First, the cross-sectional nature of this study limits its ability to establish causality. Future research could address this by adopting longitudinal designs to observe changes over time. Second, the study was confined to a single sector, which may reduce its external validity. To enhance the generalizability of the results, further research could be conducted across different sectors, such as manufacturing and services industries. Third, the data collection relied on a single source, which could introduce bias. Future studies should consider more complex designs that incorporate multi-source data to provide a more robust analysis. Fourth, while this study focused on variables such as overtime, extended hours, workload intensity, and pressure to work extended hours as contributors to poor mental well-being, it is important to recognize that other factors may also play a significant role in leading to stress, anxiety, and burnout among employees. Future research could explore these additional variables to provide a more comprehensive understanding of the factors influencing employee mental health.

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