



Income and Workplace Stress: Psychological Implications for Employees in Afghanistan

Samiullah Hasanzadah; Khairuddin Khairkhah; Mohammad Nasir Habibi

Faculty of Psychology and Educational Sciences, Kabul University, Kabul, Afghanistan

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Abstract

Mental health problems among employees are increasing globally. While the factors contributing to poor mental health among employees in high-income countries are well-documented, they remain relatively unknown in low-income countries, especially in Afghanistan, where socio-economic challenges may exacerbate these issues. This study aims to investigate the impact of income and job stress on the mental health of employees, with the hypothesis that income has a positive effect, while job stress has a negative effect on employees' mental health. This is a quantitative, correlational study. A total of 205 male employees with an average age of 31 years ($SD = 9.01$), predominantly married (62%), from Kabul University participated in the study. Data were collected using two questionnaires: the Health and Safety Executive (HSE) and the Depression, Anxiety, and Stress Scale (DASS-21), and analyzed using SPSS-27. The findings support the hypothesis, showing that income positively ($\beta = 0.23$, $P < 0.001$) and job stress negatively ($\beta = -0.31$, $p < 0.001$) affect mental health ($R^2 = 0.16$). The model explained 16% of the variance in mental health outcomes, indicating a modest relationship between income, job stress, and mental health. The lowest levels of job stress were found among employees, with the highest percentages reporting symptoms of depression (47.9%) and anxiety (35%). As a result, while job stress and income influence mental health, the impact is relatively low, and further research is needed to examine other factors affecting employees' mental health. Given the high prevalence of depression and anxiety symptoms, it is crucial to address this issue seriously. In Afghanistan, where socio-economic instability and limited mental health resources prevail, understanding these relationships is crucial for developing targeted mental health interventions.

Keywords: *Mental Health; Afghanistan; Job Stress; Income; Employees*

Introduction

Mental health is one of the main issues of today's world. The prevalence of mental illnesses is increasing at an alarming rate, such that one in every two people will experience it at some point in their lives (Harvard Medical School, 2023). In addition to the suffering that these individuals endure, the economic costs of mental illnesses were reported to be around 2.5 trillion dollars in 2010, and it is predicted that this will double by 2030, reaching 6 trillion dollars (Trautmann et al., 2016). A large part of these costs, however, consists of indirect costs (1.7 trillion), with the most significant being the inability

to work due to mental health problems (Trautmann et al., 2016). Among the 58% of the global working population (International Labor Organization, 2022), 15% of working-age adults suffer from mental disorders (World Health Organization, n.d.). Depression and anxiety alone cause a loss of 12 billion working days annually, resulting in a cost of 1 trillion dollars (World Health Organization, n.d.). Employees with mental health problems have an average of 12 unplanned days off per year, while employees without mental health issues have only 2.5 days off (Gallup, 2022). In 2023, 20% of employees reported feeling lonely, and well-being among young employees has declined (Gallup, 2024).

Although these figures are from high-income countries, there are no available statistics for middle- and low-income countries (Christensen et al., 2020). However, given that 70% of mental health issues exist in low- and middle-income countries (Alloh et al., 2018), it is likely that mental health problems in these countries also result in significant costs.

Workplace Stress and Mental Health

One important factor in improving or reducing employees' mental health is workplace stress (Ravalier et al., 2020). Not all stress leads to a decrease in mental health (Le Fevre et al., 2003). Therefore, the UK's Health and Safety Executive (Health and Safety Executive, n.d., para.1) distinguishes between pressure and stress and defines workplace stress as: "a negative reaction of individuals to excessive pressures or other demands placed on them in the workplace." Workplace stress negatively impacts employee productivity by reducing mental health (Chen et al., 2022), and it affects organizational performance (Ravalier et al., 2020). This negative impact on productivity is observed with both low and high levels of stress (Awada et al., 2024). Workplace stress is positively correlated not only with mental health issues such as major depression (Wang, 2005), but also with physical health problems such as cardiovascular diseases (Belkic et al., 2004), obesity (Berset et al., 2011), high blood pressure (Tobe et al., 2007), and type 2 diabetes (Kroenke et al., 2006). Job-related stress also affects individuals' social and family lives (Burman & Goswami, 2018). One protective factor against workplace stress is positive mental health (Page et al., 2014).

Two important hypotheses exist regarding the formation of workplace stress: the demand-control hypothesis and the effort-reward imbalance hypothesis. The demand-control hypothesis (Robert Karasek, 1979) states that if there is an imbalance between job demands, such as time constraints, high workload, and job complexity, and control over one's job and related decision-making, workplace stress will occur (Ferrie, 2001; Karasek, 1979). On the other hand, the effort-reward imbalance perspective suggests that stress and mental health issues arise from a mismatch between the amount of effort an individual puts into a job (mentally or physically) and the rewards they receive (such as promotions, salary, and recognition) (Tsutsumi & Kawakami, 2004). Numerous studies show that both high demands and low control, as well as high effort and low rewards, lead to psychological problems (Lowe & Bennett, 2003; Garbarino et al., 2013; Mark & Smith, 2012), even for individuals with no prior mental health issues (Melchior et al., 2007).

Income and Mental Health

The relationship between income and mental health is complex. The risk of depression and anxiety among employees with low income is more than double that of their higher-income counterparts (Virtanen et al., 2008), and this finding has been confirmed in several previous studies (Bijl et al., 1998; WHO International Consortium in Psychiatric Epidemiology, 2000; Kahn et al., 2000; Mojtabai & Olfson, 2004). However, income does not have a direct impact on mental health, as individuals with higher income maintain better mental health through access to better healthcare and the absence of financial pressures (Langner & Michael, 1963). On the other hand, mental health also negatively affects income; individuals with poorer mental health tend to have lower incomes (Barry et al., 2013).

Two views have emerged in explaining the relationship between socioeconomic status and mental health: the social selection theory and the social causation theory. The social selection view posits that mental illness leads to lower socioeconomic status because affected individuals face difficulties in work, relationships, and academic success, leading to social withdrawal and unemployment. Conversely, the social causation theory holds that environmental and social factors lead to mental illness. People living in poverty receive less social support, face greater financial stress, and are exposed to more violence, which leads to mental health problems (Johnson et al., 1999). Both perspectives are well-supported by empirical evidence (Johnson et al., 1999; Kamalulil & Panatik, 2021; Lorant, 2003).

Interaction Between Mental Health, Stress, and Income

In low-income countries, access to basic life necessities (such as food, healthcare, and security) is reduced, which not only affects physical health but also harms mental health (Tibber et al., 2022). Studies show that as Gross National Product (GNP) increases, general health (both mental and physical) improves (Murali & Oyeboode, 2004). Any decrease in income can exacerbate mental health problems, particularly when individuals live in areas where overall income levels are low (Thomson et al., 2022). A review of 78 articles found that one of the variables associated with poor mental health is low income (Silva et al., 2016). Low income can lead to financial pressures, including debt, which in turn causes stress in life (Selenko & Batinic, 2011).

Income inequality affects individuals' health in two ways. On one hand, those without enough income to live comfortably face poverty and deprivation (Ribeiro et al., 2017), and are thus deprived of quality healthcare. In one study, 75 to 80 percent of children with mental health issues did not receive treatment (Kataoka et al., 2002). In another study, only 13% of individuals with PTSD received related treatments (Davis et al., 2008). On the other hand, individuals with low income in areas with income inequality face insecurity and competitive positioning. These individuals lose their social trust and sense of connection with the community (Pickett & Wilkinson, 2010). Each of these conditions leads to increased stress and, consequently, poorer mental health (Fone et al., 2014). Another study analyzing data from 2009 to 2020 indicates that mental health issues among working-age youth have increased, with economic and social problems being one of the causes (Parra-Mujica et al., 2023).

In low- and middle-income countries (LAMIC), despite high rates of mental illness (Alloh et al., 2018), funding for mental health is less than 1% (Patel, 2007). Most studies on psychological treatments have been conducted in high-income populations (Satcher, 2001), which has led some researchers to question the effectiveness of these treatments for low-income countries (Santiago et al., 2013). However, some studies in these populations have shown the effectiveness of these treatments (Miranda et al., 2002).

Although numerous studies have explored the impact of income and workplace stress on mental health, research on this topic in Afghanistan remains limited. Most studies in Afghanistan have focused on the prevalence of mental disorders, with few addressing the role of various factors on mental health. For example, a relatively comprehensive study found that 47.12% of the participants suffered from mental health problems, and 39.44% had been severely affected by these issues (Kovess-Masfety et al., 2021). Ahmadi and colleagues studied the prevalence of mental health issues among adolescents in Kabul (Ahmadi et al., 2022). In workplace environments, a study by Waheed and colleagues showed a 68% prevalence of PTSD symptoms among respondents (Waheed et al., 2019). Stressors in Afghan workplaces include long working hours (Ahmadzai et al., 2024), the work environment, job nature, and workload (Zadran et al., 2023). A study by Farooq and colleagues found a positive relationship between high job involvement, good relationships between colleagues, and job performance (Farooq et al., 2015). An unstable economic situation, limited access to mental health services, and job-related pressures have caused significant stress among employees (Rahman et al., 2023). Given the current socio-economic situation, employees in Afghanistan may face more psychological challenges compared to employees in countries with stable economic conditions. This research aims to examine the impact of income and

workplace stress on the mental health of employees in Afghanistan to fill this important research gap. Understanding this impact will assist policymakers and organizations in developing effective strategies to improve employees' well-being and support systems.

This study contributes to the growing body of research on mental health by providing empirical evidence on the relationship between workplace stress, income, and mental health from a unique and lesser-known environment (Afghanistan). These findings offer valuable insights for both academic researchers and professionals working to enhance employee well-being in Afghanistan. The main hypothesis of this research is that workplace stress has a negative impact on mental health, while income has a positive impact on mental health.

Method

Participants and Research Method

This research is applied in terms of its objective, quantitative in terms of its method, and correlational in nature, aimed at examining the impact of income and job stress on the mental health of employees. For this purpose, administrative employees of Kabul University were selected as the study population. Kabul University is the largest and oldest university in Afghanistan, located in Kabul (the capital of Afghanistan). This university was established in 1932 and currently operates in 22 faculties, 101 departments, 23 master's programs, 2 doctoral programs, and has 25,200 students (Kabul University, n.d.). The sample size was determined to be 201 based on the population size using the Morgan table. To prevent a reduction in the sample size due to invalid questionnaires, 250 questionnaires were distributed. Participants were selected using simple random sampling, and after collecting the questionnaires and discarding invalid ones, 205 valid questionnaires were obtained.

The distribution method of the questionnaires was as follows: by visiting the employees' workplaces, providing necessary explanations about the research's objective, the method of questionnaire completion, and obtaining their consent, the questionnaires were distributed and collected after completion by the employees. The data were analyzed using SPSS-27 software after collection.

Data Collection Tools

Two questionnaires were used to collect data for the research. The DASS-21 questionnaire, which measures depression, anxiety, and stress, was developed by Lovibond and Lovibond (1995). This questionnaire contains 21 items, with 7 items for each dimension. Each question is rated on a scale of 0 to 3 (0 = does not apply to me at all, 1 = somewhat applies to me, 2 = mostly applies to me, and 3 = applies to me completely). The score for each individual is obtained by summing the scores for each dimension, and since this is the short version (with 42 items), the score for each dimension should be multiplied by 2. The scores are classified into 5 categories indicating the severity of symptoms: normal, mild, moderate, severe, and very severe. The validity and reliability of this questionnaire have been tested in various populations (Antony et al., 1998; Moya et al., 2022). In this study, the Persian version of the questionnaire was used, which has been reported to have good validity and reliability (Rahimi et al., 2006, cited in Aghabati, 2005, and Moradi, 2005). In this study, the internal reliability of this questionnaire was calculated, and its Cronbach's alpha coefficient was 0.92.

The workplace stress Questionnaire developed by the Health and Safety Executive (HSE) was used to measure the level of workplace stress among employees. This questionnaire measures job stress across seven domains: demands, control, colleague support, managerial support, relationships, role, and change, using a 5-point Likert scale ranging from 0 (never) to 5 (often). A higher score on this questionnaire indicates low job stress in the organization, while a lower score indicates high job stress

among employees. The validity of this scale has been confirmed (Marcatto et al., 2014). In this study, the Persian version of this scale was used, which has been previously reported to have good validity and reliability (Marzabadi & Fesharaki, 2011). In this study, the internal reliability of this questionnaire was also calculated using Cronbach's alpha, which was 0.80.

For income measurement, participants were asked to report their monthly income in one of the following four categories:

- 5,000 to 10,000 AFN (approximately 68 to 136 USD)
- 10,000 to 15,000 AFN (approximately 136 to 205 USD)
- 15,000 to 20,000 AFN (approximately 205 to 273 USD)
- 20,000 AFN and above (approximately 273 USD and above)

Results

In general, the signs of depression, anxiety, and stress in the sample were found to be from moderate to very severe, with 35%, 47.9%, and 22.5% respectively (see Table 1). The levels of depression and anxiety were relatively higher than stress among employees. The level of job stress among employees was also low, with $M = 118.23$ and $SD = 15.42$.

Table 1: numbers and percentage of each category in mental health

Category	Means (SD)	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)
Depression	11.09(8.88)	88(42.9%)	44(21.5%)	40(19.5%)	22(10.7%)	11(5.4%)
Anxiety	10.40(8.63)	85(41.7%)	21(10.1%)	38(18.6%)	22(10.7%)	38(18.6%)
Stress	12.67(9.62)	129(62.9%)	30(13.7%)	25(12.2%)	14(6.8%)	7(3.5%)
Note: N=205						

Consistent with the first hypothesis of the study, which stated that there is a positive relationship between income and mental health, and the second hypothesis, which suggested that there is a negative and significant relationship between job stress and mental health, the results indicate that there is a positive and significant relationship between income and mental health ($R = 0.24$, $p < 0.001$), and a negative and significant relationship between job stress and mental health ($r = -0.26$, $p < 0.001$). No significant relationship was found between income and job stress ($r = 0.05$, $p > 0.05$).

The majority of employees (69.3%) earned between 5,000 to 15,000 AFN (approximately 68 to 205 USD), while the remaining employees (30.7%) earned between 15,000 to 20,000 AFN (approximately 205 to 273 USD) or higher. In this study, a significant positive relationship was found between age and mental health ($r = 0.31$, $p < 0.05$), age and job stress ($r = 0.16$, $p < 0.05$), and age and income ($r = 0.21$, $p < 0.05$) (see Table 2).

Table 2: Descriptive statistics and correlations for study variables

Variable	n	M	SD	1	2	3	4
1. Mental health	205	34.25	24.48	-			
2. Work stress	205	118.68	15.50	-0.26**	-		
3. income	205		1.04	0.24**	0.05	-	
4. age	205	31.43	8.86	0.31*	0.16*	0.21*	-
Note:							

Furthermore, in line with the third hypothesis of the study, which suggested that the two variables of job stress and income significantly predict mental health, the results of the multiple linear regression test (reported in Table 3) show that income ($B = 5.19$, $p < 0.001$) has a positive and significant impact on mental health, while workplace stress ($B = -0.48$, $p < 0.001$) has a negative and significant impact on mental health. The negative impact of workplace stress on mental health is greater than the positive impact of income on mental health. The correlation coefficient ($R = 0.35$) indicates a weak to moderate relationship between the independent variables and mental health. The coefficient of determination ($R^2 = 0.16$) shows that 16% of the variations in mental health are explained by income and workplace stress, highlighting the role of other factors in determining mental health.

Table 3: Multiple Linear Regression Results for study variables

Predictor	B	SE	β	t	P	95%CI
Income	5.19	1.76	0.23	3 .42	< 0.001	[-8.40,-2.25]
Work stress	-0.48	0.11	-0.31	- 4.25	< 0.001	[-0.60, -0.19]
Note: n=205, r=0.40, $R^2=16$						

Discussion and Conclusion

This study was conducted due to the lack of similar research in Afghanistan and the importance of mental health for employees. Its goal was to examine the impact of workplace stress and income on the mental health of employees. The participants in this study were 205 employees from Kabul University. The hypothesis of this study was that there is a significant relationship between income, job stress, and the mental health of employees. Based on the social causality theory (Johnson et al., 1999), we hypothesized that income could have a positive impact on the mental health of employees, meaning that with an increase in income, mental health would also improve. Similarly, according to the demand-control theory (Ferrie, 2001; Karasek, 1979), we assumed that workplace stress would negatively affect mental health. The results supported our hypothesis, showing that income positively impacts mental health, while job stress negatively impacts it. These findings align with previous research on the positive relationship between income and mental health (Thomson et al., 2022; Escarce, 2003; Virtanen et al., 2008; Mojtabai & Olfson, 2004) and the negative relationship between job stress and mental health (Ravalier et al., 2020; Melchior et al., 2007; Mark & Smith, 2012).

Although both income and job stress had a significant effect on mental health, the negative effect of job stress on mental health was stronger. This indicates that job-related stress can have a much greater negative impact on mental health than the improvement in mental health due to increased income, potentially leading to symptoms of depression, anxiety, and stress. The relatively low effect of income on mental health may be due to several reasons. First, in countries like Afghanistan, which have experienced long periods of war and poverty, mental health is often compromised due to these factors, and income improvement alone does not significantly enhance mental health. Lund et al.'s study, which examined mental health in developing countries, confirms this (Lund et al., 2011). In these countries, if interventions focus on improving mental health, the economic situation may improve as well (Lund et al., 2011). This highlights the importance of mental health interventions rather than merely economic ones. People who have lost their productivity due to poor mental health cannot regain it with financial assistance alone.

On the other hand, Afghanistan is a collectivist culture where family and social relationships are strong. Studies show that social support plays a significant role in managing stress and alleviating

economic pressures and job stress (Cohen & Wills, 1985). Income does not have a direct impact on mental health (Li et al., 2022). Instead, consequences such as debt, financial pressure, and the inability to meet basic needs, resulting from low income, can lead to psychological issues, thereby reducing mental health (Selenko & Batinic, 2011). In fact, the negative outcomes of low income can be mitigated by social support, thus preventing damage to mental health.

Another important factor in maintaining mental health is religious beliefs. Afghanistan differs from other societies in that religious beliefs play a significant role in daily life. In cultures like Afghanistan's, people may use their religious beliefs as a source of comfort and resilience in the face of economic challenges (Mehdad t, 1997). Research has shown that religious beliefs can help individuals feel more hopeful and at peace when facing economic difficulties, thus reducing the negative effects of poverty on mental health. Furthermore, religious beliefs may moderate the relationship between job stress and mental health (Mehdad et al., 2015).

Additionally, the type of work and the work environment are important factors influencing job stress (Zadran et al., 2023). Since the participants in this study were solely administrative employees of the university, they may have experienced relatively low job stress, as such jobs are less stressful. In contrast, jobs in environments like hospitals, where higher stress levels are common, have shown a stronger relationship between job stress and employees' mental health (Hashemzadeh et al., 2001). Furthermore, Graham (2005) indicated that in developing countries (like Afghanistan), people tend to lower their economic expectations and costs of living, and by adjusting their expectations to their economic reality, they feel more satisfied and suffer less from economic pressures (Graham, 2005). Additionally, government jobs offer relative stability, enabling individuals to plan for the long term. Employees with low income may cope with financial pressure by reducing expenses, thus preventing psychological consequences of low income.

The majority of employees exhibited moderate to severe anxiety symptoms (47.9%), with depression (35%) and stress (22.5%) also being high. These findings align with previous studies on mental health in Afghanistan, which have reported high rates of psychological issues in the country (Ahmadi et al., 2022; Kovess-Masfety et al., 2021; Mohammadi et al., 2023). Despite low mental health, employees do not experience significant job stress. This suggests that low mental health may be related to other factors.

Limitations and Recommendations

One limitation of this study was the that we did not include additional variables affecting employees' mental health. Given the cultural factors in Afghanistan, future research should consider other factors, such as family support, religious beliefs, and coping strategies for economic and psychological challenges. Another limitation was the small sample size, which should be considered when generalizing the results. Since this study focused on Kabul University employees, the results may not be applicable to employees in other professions with different characteristics. Therefore, future research could explore this issue in other professions. Given the prevalence of mental health issues, attention to this matter is crucial, as mental health problems are not solely an individual issue. Studies show a positive relationship between mental health and job performance (Wright et al., 1993). Improving mental health can enhance job performance, which is important for any organization.

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