



Original Article

## Job Satisfaction as a Predictor of Mental Health Problems and Substance Use among Personnel Working in Higher Education Institutions in Pakistan

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## ABSTRACT

This study aims to investigate the predictive association of job satisfaction with mental health problems (i.e. depression, anxiety & stress) and substance use among personnel working in HEIs in Pakistan. A sample of personnel working in different public and private sector HEIs in Pakistan was recruited using a convenient sampling technique. To assess the variables, the Job Satisfaction Survey, the Depression Anxiety and Stress Scale, and the Drug Abuse Screening Test were utilised, with all measures administered in the Urdu language. Findings indicate that, variables of job satisfaction (i.e., supervision & fringe benefits) significantly predicted substance. Furthermore, there is a significant predictive association of job satisfaction with depression, anxiety and stress. Moreover, there is a significant predictive relationship of components of job satisfaction, such as promotion, fringe benefits, and supervision, with depression, and promotion, supervision, fringe benefits, and contingent rewards are significantly associated with anxiety, and the variable of fringe benefits is significantly associated with stress. The findings indicate that components of job satisfaction, such as fringe benefits, supervision quality, and promotion, are significantly associated with mental health problems. Job satisfaction across these domains offers a protective effect in reducing mental health issues and substance use. These insights underscore the importance of fostering a supportive and rewarding work environment and climate to enhance employees' productivity, mental well-being, and quality of life.

**Keywords:** *Higher education institutions, Job satisfaction, Mental health problems, Personnel working HEIs, Substance use*

## INTRODUCTION

The workplace has a significant role on people's mental health, particularly in the education sector, where employees frequently face high work requirements, job uncertainty, and high levels of stress. Administrative issues, limited job advancement, and unbalanced workloads are among the factors that stress both teaching and non-teaching staff in higher education institutions. These variables can negatively impact their mental health and make them dissatisfied at work. Not only can these employment-induced mental health issues such as anxiety, depression, and stress compel people to adopt unhealthy coping mechanisms like substance use. Job satisfaction covers the mental, emotional and behavioral domains of people's work experiences that affect how happy or unhappy they are with their jobs (Locke, 1976). It includes things like pay, recognition, the work environment, and how people deal with each other and other people in their system. Low job satisfaction often leads to mental health problems that make it hard for workers to cope. Higher education employees, both academic and non-academic, may face several problems, such as heavy workloads, job instability, interpersonal conflict, and not getting enough credit. Individual ways of dealing with stress might not be enough to handle these pressures (Gillespie et al., 2001).

When people do not have enough personal resources to perform at their workplace, they are more likely to have coping deficits, which means they can't handle stress well because they are not well equip to address difficult situations, or lack of support (Lazarus & Folkman, 1984). In these cases, people may use unhealthy ways to deal with their problems, like repressing their true feelings and emotions, deny

accepting reality, or using drugs. These strategies might help them to overcome their situation for a shorter period, but it negatively affects their social and emotional functioning for the long run (Carver & Conner-Smith, 2010). There are many factors that affect the link between substance use and wellbeing. According to research, people who are unhappy with their jobs are more likely to use drugs (Frone, 2016), especially to deal with stress and dissatisfaction at work. On the other hand, people who are satisfied with their jobs are less likely to use drugs because they are mentally healthier and feel less stressed. Pressures at work, not getting enough help from managers, and not having enough freedom, could lead to substance use.

On the other hand, workplaces that offer freedom, positive feedback, and chances to grow professionally may lower the risk of substance use. When workers are happy with their jobs, they are more productive and committed to the company. It's linked to better mental health, fewer absences, and better ways of coping, all of which serve as protective factors against substance use and they are more engaged, resilient, and likely to behave well (Burgard & Lin, 2013). In higher education institutions, both teaching and non-teaching staff have become less satisfied with their jobs in recent years. There could be many reasons including workload, less job security, and changes in how things are organized. In this situation, job dissatisfaction is strongly connected with more mental pain, burnout, and inappropriate ways of coping, like substance use.

### Research question

To what extent job satisfaction is related to mental health problems (depression, anxiety & stress) and substance use among personnel working in HEIs in Pakistan?

## LITERATURE REVIEW

People who work in education or administration and are constantly unhappy because they don't have enough freedom, recognition, or support may use substances like alcohol, tobacco, and or prescription drugs (Gillespie et al., 2001; Watts & Robertson, 2011). People who are less satisfied with their jobs are more likely to be emotionally exhausted, irritable, and less interested in their work. Over time, it has been linked to higher rates of substance use, chronic stress, depression, and missing assignments. It is sometimes used to self-medicate to deal with mental turmoil or stress. Non-academic employees may be more likely to be unhappy with their jobs because they don't have as much access to career development and institutional recognition. Research indicates that these individuals hold diminished access to job clarity and less support available, thus intensifying stress and fostering maladaptive coping strategies (Winefield et al., 2003). When trying to fix job dissatisfaction in academic settings, it is important to think about the long-term positive outcome for the institution and the well-being of the workers. Ignoring these problems could lead to long-term drop out, decrease in productivity, the efficiency of education, and the quality of service, as well as higher costs for healthcare and employee's turnover.

Some time staff makes plans and tries to achieve their goal, but some time because of lack of support from the employers or the supervisors they are unable to achieve those goals. This affects their emotional health. As a result, they feel discouraged and uncertain about their job. This may affect their growth, and may feel emotionally worn out. To deal with these problems they use maladaptive coping strategies like withdrawing from others or isolating themselves (Watts & Robertson, 2011). These ineffective coping strategies may not address the underlying causes of discomfort, potentially resulting in poor job performance, increased stress, increased discontent and interpersonal difficulties. In the end, such experiences can cause burnout, absenteeism, and a higher chance of mental health issues like depression and substance use (Leiter & Maslach, 2011). A survey conducted at three teaching institutions in Karachi indicated that 68% physicians reported job discontent, particularly concerning safety, workload, and compensation. Moreover, over 48% of physicians indicated that they were feeling tension levels classified as either extremely high or high. Their heightened level of stress and dissatisfaction fostered an environment that promotes emotion-focused

maladaptive coping mechanisms, including substance use (Khuwaja et al., 2004).

A large Chinese study with 6,190 workers found that stress at work made people much less satisfied with their jobs, which in turn made individuals more likely to show signs of anxiety and sadness. Even though there wasn't a drug-specific analysis, the results are in line with a theory that says stressed-out, unhappy workers may use emotion-focused coping mechanisms, such as substance use, to ease their worsening mental distress. According to Karasek's demand-control model substance use is associated with chronic work stress and job dissatisfaction, as evidenced by maladaptive behaviors, including excessive alcohol and substance use. Other studies have found that that not being satisfied with job is strongly linked to higher levels of anxiety, sadness, and tension, all of which make it easier to start using drugs to deal with stress. A study conducted in China found that being unhappy at work is a strong indicator of anxiety and sadness. It accounted for 12 to 16 percent of the effect of work stress on these mental health outcomes (Salas-Vallina et al., 2020).

Present study examines the association, mental health, and substance use among personnel in Pakistan's Higher Education Institutions (HEIs), a sector vital to the country's intellectual and social development. An understanding of how mental health affects the correlation between substance use and job satisfaction might guide policy makers aimed at mitigating harmful coping strategies this may help in increasing productivity, positive work climate and environment, healthy interaction, and improved wellbeing and quality of life of workers in the HEIs. This research will fill a notable need in the current literature by focusing on employees of Higher Education Institutions (HEIs) in Pakistan, a demographic that has been mostly overlooked in investigations concerning occupational stress, mental health, and substance use. Although previous research has investigated job satisfaction and substance use separately, there is a paucity of studies that have explored the linkage of job satisfaction with mental health conditions and substance use within the specific sociocultural context of HEIs in Pakistan.

### Hypothesis

- There is a significant predictive association of job satisfaction with mental health difficulties (i.e., depression, anxiety & stress) and substance use among personnel working in HEIs in Pakistan.

## METHODOLOGY

The sample of 1236 individuals was comprised of

those aged 25 to 45 years ( $M = 30.15$   $SD = 6.87$ ). Among them 772 (62.45%) were male and 464 (37.54%) were female. Sample was recruited from different public and private sector HEIs in Pakistan, using convenient sampling technique. A cross-sectional research design was employed to examine the predictive association of job satisfaction with mental health problems and substance use among personnel working in HEIs.

## Measures

### Consent Form

The consent form included the objectives of the current research. The consent form guaranteed confidentiality, and the study protocols mentioned the participant's the choice to quit the study at any time.

### Personal Information Form

It comprised of information about a person's family, educational qualification, and other information socio demographic characteristics. Personal information was collected through questions including age, gender, education, residence, family system, income, work status, history of substance use, history of psychopathology in family, etc.

### Job Satisfaction Survey

The Job Satisfaction Survey (JSS) has 36 questions that measure nine aspects of job satisfaction that are linked to general happiness. JSS has nine subscales and each of the nine subscales comprised of four items. Each question/item has six options to answer, and the respondent has to choose one of option best suit them. The nine subscales demonstrated moderate to high internal consistency. The coworker subscale received a score of 0.60, whereas the total scale scored 0.91 (Spector, 1985). Shahzad and Begum (2011) found internal consistency of Urdu version of JSS as .77, which is good. Further they found the Gutman Split-Half Coefficient as .84 and test-retest reliability as .86. Researchers further found that Urdu version of JSS is significant positive correlated with self-esteem ( $r = .441$ ,  $p < .01$ ), and trait emotional intelligence ( $r = .675$ ,  $p < .01$ ).

### Depression Anxiety and Stress Scale

The Depression Anxiety and Stress Scale (DASS-21) is comprised of 21 items with subscales of depression, anxiety and stress. The sum of the scores for each scale (anxiety, depression, & stress) determines the outcome. Participants are asked to use four-point response format to rate how much they have experienced each

statement in the past week. The DASS has excellent internal reliability in a university group, as shown by the coefficients for the depression scale ( $\alpha = 0.91$ ), the anxiety scale ( $\alpha = 0.81$ ), and the stress scale ( $\alpha = 0.89$ ) (Lovibond & Lovibond, 1995).

### Drug Abuse Screening Test (DAST-10; Skinner, 1982)

The Drug Abuse Screening Test (DAST-10) is a self-report tool with ten items adapted from the original DAST, which had 28 items (Skinner, 1982). The DAST 10 was created as a short self-report tool for studies that screen populations, find clinical cases, and to evaluate treatment. The sample items for DAST-10 are; 1. "Have you used drugs other than those required for medical reasons?" 2. "Do you abuse more than one drug at a time?" 3. "Are you unable to stop abusing drugs when you want to?" The response format of the DAST-10 is nominal, using a yes/no format. It is suitable for use with young adults and adults. By providing a quantitative assessment, the DAST-10 measures the extent of drug abuse-related consequences.

### Procedure

After obtaining permission from the concerned authorities of HEIs, researchers took the time from the personnel to discuss about the objectives of study and the participants in the study on voluntary basis. After getting permission, participants were briefed about the study's goals and objectives. They were further briefed about the confidentiality and privacy of information and they were assured that their personal information would not be shared with anyone and it would only be used for research purpose. The subsequent step was to meet those who met the prerequisite criteria and were again requested if they want to participate in the study. They were given the informed consent form, after signing the informed consent they were given the questionnaires of JSS, DAST-10, and DASS-21, respectively.

### Data analysis

The Statistical Package for Social Sciences (SPSS, V.27) was utilized for data analysis. The demographic and sample characteristics of the participants, encompassing age, gender, family structure, and socioeconomic status, were analyzed delineated by descriptive statistics, including means and standard deviations, for inferential statistics, linear Regression were performed.

### Ethical Consideration

The study's research was conducted in accordance

with all relevant ethical standards for human subjects. All participants were given the opportunity to ask questions and provided informed consent. Subsequently, they were briefed and assured that their information would be kept confidential. They were also informed that they could withdraw from the study at any time without incurring any financial gain or loss.

## RESULTS & FINDINGS

This section comprises findings of study. Table 1 shows that job satisfaction is the significant predictor of depression ( $F = 5.202, p < .001$ ) among personnel of higher education institutions and explains 3.4%

of depression variance ( $R^2 = .034$ ) predicted by job satisfaction. In components of job satisfaction particularly fringe benefits (including paid leave and health insurance) significantly reduce depression symptoms and are the strongest protective factor among job satisfaction elements ( $\beta = -.120, p < .001$ ). Moreover, depression is negatively correlated with supervision quality, emphasizing the importance of supportive leadership ( $\beta = -.072, p = .032$ ). Depression had a positive correlation with promotion prospects ( $\beta = .074, p = .037$ ). After accounting for these three variables, Depression was not significantly predicted by wage, working conditions, co-worker relationships, or employment type.

**Table 1**  
Regression analysis: predicting depression from job satisfaction.

Predictor variable	B	t	Sig.
Job Satisfaction			
Pay	-.039	-1.161	.246
Promotion	.074	2.085	.037
Supervision	-.072	-2.148	.032
Fringe Benefits	-.120	-3.567	.000
Contingent Rewards	-.063	-1.729	.084
Operating conditions	.005	.174	.862
Co-workers	-.015	-.451	.652
Nature of work	-.004	-.108	.914
Communication	.062	1.937	.053

Note.  $R^2 = .034$  for Depression,  $F = 5.202, p < .001$

Table 2 indicates among higher education institutions personnel components of job satisfaction predicated anxiety and overall model is statistically significant ( $F = 5.920, p < .001$ ), variation ( $R^2 = .033$ ) on the level of anxiety. Summary of estimated change (i.e., beta values) on anxiety levels indicates that one unit increase in conditional rewards decreases in level of anxiety ( $\beta = -.092, p = .01$ ). Similarly, one unit increase in levels of supervision ( $\beta = -.077, p = .022$ ) and extra advantages ( $\beta = -.075, p = .026$ ) are substantially associated with reduced anxiety. Interestingly,

promotion possibilities show positive coefficient ( $\beta = .074, p = .037$ ) and increases the level of anxiety which may be associated with this perception that is moving higher in your job may increase stress due to pressures and expectations. Factors such as compensation, working conditions, co-workers, and work nature are not significantly associated with anxiety. In conclusion, rewards, benefits, and monitoring appear to be significant factors; however, they account for only a small portion of the overall worry. Promotion-related stress may increase anxiety.

**Table 2**  
Regression analysis: predicting anxiety from job satisfaction

Predictor variable	B	B	t	Sig.
Job Satisfaction				
Pay	-.110	-.046	-1.386	.166
Promotion	.199	.074	2.084	.037
Supervision	-.231	-.077	-2.298	.022
Fringe Benefits	-.214	-.075	-2.235	.026
Contingent Rewards	-.275	-.092	-2.520	.012
Operating conditions	-.031	-.011	-.356	.722
Co-workers	.020	.007	.204	.838
Nature of work	-.059	-.026	-.782	.434
Communication	.163	.056	1.770	.077

Note.  $R^2 = .033$  for Anxiety,  $F = 5.020, p < .001$

Moreover, findings show that stress is also significantly associated with job satisfaction (table 3). The regression model is significant ( $F = 4.69, p < .001$ ), explains 3.1% of stress variation ( $R = .031$ ). Summary of coefficients shows that, only fringe benefits presented a significant negative association with work satisfaction ( $\beta = -.125, p < .001$ ), indicates increase in fringe benefits level one unit, decrease level of stress among HEIs

**Table 3**

Regression analysis: predicting stress from job satisfaction

Predictor variable	B	B	t	Sig.
Job Satisfaction				
Pay	-.101	-.042	-1.261	.207
Promotion	.069	.026	.719	.472
Supervision	-.101	-.033	-.996	.319
Fringe Benefits	-.358	-.125	-3.706	.000
Contingent Rewards	-.066	-.022	-.599	.549
Operating conditions	-.137	-.047	-1.548	.122
Co-workers	.032	.011	.316	.752
Nature of work	.018	.008	.232	.816
Communication	.177	.061	1.909	.056

Note.  $R^2 = .031$  for Stress,  $F = 4.69, p < .001$

Table 4 shows job satisfaction significantly predicted substance use, and accounting for 1.5% of variance in substance use ( $R^2 = .015$ ). The beta values indicated that on unit increase in supervision quality ( $\beta = -.094, p = .005$ ) and increased fringe benefits ( $\beta = -.076, p$

**Table 4**

Regression analysis: predicting substance use from job satisfaction.

Predictor variable	B	B	t	Sig.
Job Satisfaction				
Pay	.012	.017	.509	.611
Promotion	.050	.064	1.782	.075
Supervision	-.083	-.094	-2.787	.005
Fringe Benefits	-.063	-.076	-2.216	.027
Contingent Rewards	.000	.001	.015	.988
Operating conditions	.006	.007	.217	.829
Co-workers	.021	.024	.729	.466
Nature of work	.030	.044	1.323	.186
Communication	-.023	-.027	-.851	.395

Note.  $R^2 = .015$  for Substance Use,  $F = 2.195, p < .001$

personnel 0.125 units. A small but positive effect ( $\beta = .061, p = .056$ ) suggests that greater communication may increase stress due to excessive information or expectations. No other factors such as, advancement, supervision, contingent incentives, work environment, co-workers, and job characteristics predicted stress well in our model.

$= .027$ ) significantly reduced substance use among HEIs personnel. However other components of job satisfaction including communication, nature of work, promotion, pay, working conditions are statistically insignificant and not associated with substance use.

## Discussion

The present study examined the predictive association of job satisfaction with mental health problems and substance use among personnel of HEIs in Pakistan. Findings revealed that specific components of job satisfaction particularly, fringe benefits, supportive supervision, and contingent rewards emerged as significant protective factors across multiple mental health outcomes. The overall model strength, which ranged from 3.4% (an indication of depression) to

1.5% (an indication of substance use), brought to light the complex nature of the mental health outcomes that occur in the workplace. Across all models, the standardized  $\beta$  coefficients varied from  $-.075$  to  $-.125$ , indicating that fringe benefits consistently constituted the most considerable protective factor. Findings of the recent studies conducted by researchers (i.e., [Attridge & Dickens, 2022](#)) supported our results, and they concluded that comprehensive benefit packages, which include health insurance, paid leave, and Employee Assistance Programs (EAPs), are effective in

reducing the symptoms of depression, anxiety, stress, and absenteeism among employees.

Moreover, leadership at the workplace plays a pivotal role in employee's well-being, with effective supervision helping individuals navigate job-related challenges, including psychological distress. Other researchers have suggested that high-quality supervision can meaningfully reduce symptoms of depression, anxiety, and substance use (Lesener et al., 2019), highlighting its protective influence in organizational settings. Moreover, in our findings the primary effect in the anxiety model was contingent rewards ( $\beta = -.092$ ,  $p = .012$ ), which suggests that equitable performance-based acknowledgment has the potential to ease anxiety. Furthermore, it was observed that there was a relationship of promotion opportunities and anxiety and depression ( $\beta = +.074$ ). Furthermore, findings highlighted that job satisfaction also determinant of substance use among HEIS personnel. Drawing from existing literature, the association between job satisfaction and substance use is increasingly recognized as a critical area of concern in occupational health psychology.

Studies indicate that low job satisfaction may act as a contributing factor to substance use, often as a maladaptive coping mechanism in response to chronic stress and emotional strain (Luquini et al., 2018). Supportive supervisory relationships, clear communication, and access to workplace benefits have been shown to buffer this risk, fostering resilience among employees (Tsounis et al., 2017). For instance, Van Jaarsveld (2018) found that job satisfaction moderated the adverse effects of substance use on absenteeism, reinforcing its role in stabilizing workforce engagement. Furthermore, Rumrill (2022) emphasized that individual in recovery from substance use disorders benefitted notably from employment environments marked by respect, autonomy, and meaningful support. Collectively, these findings support the idea that fostering satisfaction through tangible resources and relational support may not only enhance workplace morale but also serve as a protective barrier against substance-related risks.

In the context of Pakistan, job satisfaction one of the important variables which has significant role in mental health outcomes. Employees who are not satisfied with their jobs are unable to leave the job because of fear of unemployment. There are limited job opportunities, they keep their emotional burden with themselves and don't ventilate properly, and this may lead to serious health related issues. Sometime environment is not conducive enough for them to share their feelings with

other people and because of the fear, shame, guilt and stigma related to mental health issues they hide or suppress their issues. In other cases, to cope with such difficult circumstances they use maladaptive coping strategies such as aggression and substance use, but this can't resolve their mental health problems but continue the vicious cycle of mental health and other risk-taking behaviors.

## CONCLUSION

Findings reveal that the variables of job satisfaction (i.e., supervision, fringe benefits, promotion) has significant role in mental health and substance use problems among employees in HEIs. It shows that people who are less satisfied with their jobs have higher mental health and resistance related issues. In conclusion, Findings reveal that the variables of job satisfaction (i.e., supervision, fringe benefits, promotion) has significant role in predicting mental health and behavior among personnel of HEIs in Pakistan. Specific components like fringe benefits, supervision, and rewards consistently reduce symptoms of depression, anxiety, stress, and substance use. In contrast, promotion opportunities sometimes increase distress, possibly due to related pressure. Other factors such as pay, work setting, and peer relations show minimal or no association. These results suggest that while job satisfaction alone does not fully explain mental health outcomes, supportive leadership and tangible benefits are key areas for intervention. These findings highlight job satisfaction as a meaningful factor in shaping mental health outcomes, with particular emphasis on the protective impact of supportive leadership and tangible benefits.

Prioritizing these areas may offer effective pathways to enhance employee well-being. Findings underscore the significant of workplace environment and climate to improve the wellbeing of employees. Substance use at workplace in HEIs in Pakistan poses a significant health and safety risks to individuals themselves, their families, staff, co-workers, students and their families, employers and all concerned stakeholders. Early detection and identification of problems at the workplace, and designing and implementing evidence-based interventions such as screening and brief interventions to reduce the risk mental health and substance use problems is important. Further, development of indigenous interventions that are contextually relevant to Pakistan and considering the gender sensitive interventions would be cost effective to address these public health issues. Delaying in implementing these interventions and programs would increase the risk of mental health issues and substance

related problems of personal working in HEIs but also negatively affect their families, students, community, employers and nation as whole. So, it is imperative to establish policy guidelines and implementing these guidelines by engaging all stakeholders.

### Limitations

Like other empirical studies present study has several limitations. Firstly, the reliance on self-reported data for job satisfaction, mental health status, and substance use can increase the response biases such as social desirability or underreporting, especially due to the stigma associated with mental health and substance use in Pakistan. Secondly, because the study was cross-sectional, it may be harder to figure out how the factors are related to each other. Third, cultural and institutional variations across HEIs in different regions of Pakistan may influence the generalizability of the results such as public sector and private sector institutions.

### Recommendation

Future studies may focus on the risk and protective factors for substance use and mental health conditions and implementing indigenous evidence-based interventions to timely address before the onset of such condition by using universal and selective prevention interventions. Further, studies may focus on the personality characteristics of staff, as well as environmental determinants that put them on risk for using substance as well as mental health issues. This may reduce the cost associated with the treatment, and reduces the risk of other comorbid conditions associated with mental health and substance use.

### Competing Interest

The authors had no competing interests.

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