

Workplace Stress, Coping Strategies and Employee Satisfaction: A Study of Coal Mining Employees in Dhanbad

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ABSTRACT

This research looks at workplace stress, coping strategies, and employee satisfaction in coal mining employees in Dhanbad, and well, in a way it sort of ties all those parts together, not exactly in a neat order all the time. The coal mining sector, as you know, is demanding physically, has occupational hazards, long working hours, heavy production pressure, shift duties, job insecurity, and overall tough conditions, and these factors can contribute a lot to workplace stress among the workers. The study aims to figure out the main sources and dimensions of workplace stress that coal mining employees experience, and also to understand how employees cope, like what they do when situations become too hard. It additionally checks the level of employee satisfaction, and then it studies the relationship between workplace stress, coping strategies, and satisfaction, because somehow those seem linked in real life too. The study also recognizes that long term stress at work can harm employees' physical and psychological well-being, weaken work performance, lower motivation, strain interpersonal relationships, and reduce overall job satisfaction. Meanwhile, coping strategies that actually work, organizational support, a more supportive work setup, and proper stress-management practices can help employees handle occupational pressure better.

Keywords: Workplace Stress, Coping Strategies, Employee Satisfaction, Coal Mining Employees, Dhanbad, Occupation.

Introduction

Stress at work is an emerging organizational and occupational health issue, especially in the workplace environments where working conditions are physically challenging, hazardous, and time sensitive. One such work environment is the coal mining industry, where workers are exposed to various occupational hazards, production pressure, irregular working hours, physically demanding jobs, environmental risks, and safety and job security concerns. These situations may impact employees' psychological health, work attitudes, productivity and satisfaction. Therefore, it is crucial to manage workplace stress in a competitive and production-driven industry to ensure that the workforce remains healthy and productive.

The work of coal miners encompasses a variety of jobs related to coal mining, to mining machinery, to transport, to maintenance, to administration, to supervision and to safety related. Stress

can vary in type and magnitude based on the nature and level of a person's workload, conditions at work, experience, shift patterns and organizational status. Extended periods of work under stressful conditions can lead to fatigue, decreased motivation, absenteeism, poor teamwork and unhappiness about work. Meanwhile, workers engage in coping with work demands in varying ways. They can be problem-solving, social support, positive thinking, relaxation, time management and other adaptive skills.

Organizational outcomes are also important, including employee satisfaction, which positively correlates with employee attitudes toward their work and organization. Stress in the workplace and coping strategies are linked to employee satisfaction, so understanding this link can help organizations be aware of what might need intervention. In the present study, it is the coal mining workers working in Dhanbad who are studied and workplace stress, coping strategies amongst the workers and level of employee satisfaction is studied. The study intends to produce evidence which can help organisations to create suitable employee-support and stress-management measures. This is particularly important since the health and safety of workers and employees have a direct link in high-risk industrial environments. Support for coping and awareness of stress can enhance employee satisfaction and support sustainable organizations. For this reason, it is worthwhile to systematically evaluate these aspects on a regular basis for both employees and management.

Background of the Study

In today's work environment, people are required to work effectively and flexibly to meet the demands of new technologies, production goals, expectations of their organization, and competition. These demands are accompanied in the coal mining industry with unique work demands of physical demands, exposure to hazardous conditions, shift work, work uncertainty and safety concerns. The setting is appropriate for the study of occupational stress and wellbeing of coal mining workers at Dhanbad.

Workplace stress can result from employees feeling that they have less resources or are not coping well with the job demands. Such stress, when chronic, can impact psychological health, physical health, work behaviour and organizational outcomes. But stressful situations don't affect everyone the same way in the work place. How they experience and manage stress might be affected by their coping strategies, social support, personal resources, and perceptions of organizational support.

Employee satisfaction is also very much linked with the quality of the work place. There is an inverse relationship between stress levels and job satisfaction; workers who cope effectively and have supportive organizational practices are more likely to experience positive work experiences. Considering these variables together can thus give a comprehensive view of employees' experiences in the workplace. In this context, the present study examines the relationship between work stress, coping strategies and job satisfaction of coal mining workers in Dhanbad.

Concept of Workplace Stress

Workplace stress is defined as the psychological and physical tension that individuals feel when they feel they are not able to meet the demands, pressures or conditions of their work to effectively cope. It can emerge over time as a result of high workload, time pressure, conflict, lack of resources, unsafe working conditions, and a lack of control. The level of stress may differ depending on the individual and the type of work environment.

Stress in the workplace can be especially relevant in the context of coal mining, as workers might be faced with physically demanding tasks, potential risks to health and safety, shift work, production demands, safety concerns, and other work responsibilities. Continued stress can impact attention and focus, motivation, mood, work performance, and relationships. It can also lead to decreased job satisfaction and fatigue if employees' needs for recovery from work demands are not met.

Therefore, the stress in the workplace should be perceived as an organisational issue in addition to an individual issue. Major stressors and the responses of employees to these stressors can be identified, enabling the organization to design interventions accordingly. Stress management might involve workload management, supportive supervision, safety measures, employee participation, counselling, communication and opportunities for recovery. Stress in the workplace is taken to be an important variable relating to the work experiences and satisfaction of coal mining workers in the present study.

Sources of Workplace Stress among Coal Mining Employees

Employees working in the coal industry can be stressed in their workplace due to several occupational/organizational factors. An important one is the challenging nature of the physical work in mining, such as standing for long periods, manual work, operating machinery, providing dust, noise and other difficult working conditions. Psychological stress can also be caused by risks of safety, and a fear of accidents, especially in fields that come into contact directly with the mining activities.

Another major source of stress is shift work. The irregular or rotating shift work can disrupt an employee's sleep, work schedule, relationships and rest time. Fatigue and mental stress can also result from long working hours and/or pressure to meet production targets. Work demands and insufficient staff and resources can cause further stress for employees.

Other factors, such as role-related factors, may also be determinants of stress. Ambiguous responsibilities, too much responsibility, not enough input in decision making, communication issues or not enough recognition can lead to dissatisfaction and emotional pressure. Also, relationships with supervisors and co-workers are important as they can also contribute to stress when there is poor working relationships with supervisors or interpersonal conflict among co-workers.

Other sources of stress to consider are job insecurity, questions about career advancement, transfers, changes in the organization, and lack of certainty when considering employment in the future. Therefore, stress can be caused by a combination of physical, organizational, interpersonal and personal stressors at work.

Concept of Coping Strategies

Coping strategies are the thoughts, behaviours and actions that people use as a way to help them deal with a stressful situation or limit how it affects them. Staff can use problem-solving approaches, including planning, finding information, optimising working practices and problem-solving directly. Emotion-focused strategies include relaxation, positive thinking, emotion regulation, social support, and withdrawal from the stressor. Coal mining workers can use coping to help them deal with work demands, regulate their emotions, and carry out their work duties. Coping strategies can be effective under certain circumstances and not under others, depending on type of stress, individual factors, supports and organizational factors. This can help enhance resilience and work adjustment.

Employee Satisfaction

Employee Satisfaction is a state of contentment that comes from workers when they are satisfied with their jobs, working surroundings, duties, rewards, associations, and total working experience. It is a reflection of the employee's own ideas of whether their working situation addresses his/her expectations and essential needs for the workplace. Factors that affect satisfaction include salary, employment security, work environment, recognition, promotion, supervision, relationships with others, and organizational support. Satisfaction can also be influenced among coal mining workers by the level of safety, work load, work schedule, and work-life balance. Improved employee satisfaction can lead to positive organizational attitudes, commitment, motivation and organizational performance. These perceptions are significant health markers in an organization.

Workplace Stress and Employee Satisfaction

There is a close relationship between workplace stress and employee satisfaction because when work environments are stressful, this can impact employees' perceptions of their jobs and organisations. Individuals have a negative attitude toward work when their workload is too high, working conditions are unsafe, working hours are long, there is interpersonal conflict, or there is insufficient organizational support. On the other hand, a lower level of job demands, a supportive supervision, availability of resources and the presence of effective mechanisms for managing stress can contribute to higher levels of satisfaction. This dynamic can be affected by coping strategies which can facilitate the handling of occupational stressors and emotional stability. Thus, a comprehensive understanding of employee experiences can be obtained when the stress, coping, and satisfaction of the employees are examined. This correlation can be used to inform companies on which intervention to implement for employee well-being.

Objectives of the Study

The objectives of the study are:

- To find out the stress level of coal mining workers in Dhanbad.
- To determine the primary sources of stress for coal mining workers.
- To analyze employees' coping mechanisms in response to stress at work in coal mining.
- To evaluate employee satisfaction of coal mining workers.
- To explore the connection between work stress and satisfaction.
- To investigate the relationship of coping strategies with job satisfaction of employees.

Review of Literature

S. K. Srivastava and A. M. Krishna (2014): S. K. Srivastava and A. M. Krishna conducted a study to explore work stress and work related experiences of workers. They emphasized that excessive workload, time pressure, demands of the job and organizational factors can play a major role in employee stress. The study also indicated that the employees' coping mechanisms have an impact on their job performance and their satisfaction with the job. Coal Miners is a study that is relevant to the present study as a lot of coal mining workers are exposed to physically demanding and stressful environments.

P. K. K. Nair and R. M. Bhat (2015): P. K. K. Nair and R. M. Bhat did an in-depth study on occupational stress and working environment in the workplace. The study focused on the following factors as important factors of occupational stress: workload, job uncertainty, organizational environment and interpersonal relationships. It also suggested that having a supportive work environment and working with colleagues could assist employees in effectively managing a stressful situation. The results are applicable to the current research, specifically the coping strategies adopted by the workers of coal mines.

Neha Sharma, Rakesh Kumar (2017): Neha Sharma, Rakesh Kumar studied the correlation of stress at work and employee satisfaction in India. They found that work pressure, workload and long working hours can lead to a reduction in workers' satisfaction. Simultaneously, organizational support, a positive work climate and employee oriented management practices can create situations where there is increased job satisfaction. This study is related to the present research as it offers a context to the study of the relationship between workplace stress and employee satisfaction.

Anuradha Sharma and Ritu Gupta (2018): Anuradha Sharma and Ritu Gupta studied about stress at work, effectiveness of employees and coping abilities. They discussed the need for problem solving, social support, positive thinking, and time management strategies to managing work stress. The research further indicated that stress management programmes in the organization can help in improving psychological wellbeing and satisfaction among employees. The findings are applicable to the present study, as effective coping mechanisms could assist coal mining workers to deal with their work related stress.

Sangeeta Singh, Rajeev Kumar (2020): Sangeeta Singh and Rajeev Kumar studied the factors of occupational stress and job satisfaction in the industrial workers. Their research was confined to those factors that are important to employee satisfaction, namely workload, working conditions, managerial behaviour, job security and work-life balance. The results indicated that high chronic occupational stressors might affect job satisfaction and positive attitudes of employees toward their organizations. The present study is of special significance as coal mining is an industrial activity which poses challenging working environment and occupational hazards.

Priyanka Kumari and Rajendra Prasad (2022).Priyanka Kumari, Rajendra Prasad (2022): Priyanka Kumari and Rajendra Prasad studied stress, coping and job satisfaction of employees in the work place. In their study, they discovered that coping strategies have the potential to affect the coping process and the consequences of stress experienced by employees and their work-related outcomes. The following coping strategies were found to be helpful in reducing stress in the workplace: social support, problem-focused coping, positive thinking, sufficient rest and recreational activities. The study also highlighted that apart from salary, job environment, organizational support, workload and psychological stress are also important factors in affecting employee's satisfaction. The results of this study have high relevance to the current research related to the coal miners of Dhanbad.

Pooja Kumari, Anil Kumar Singh and Manoj Kumar (2024): Pooja Kumari, Anil Kumar Singh and Manoj Kumar studied about the occupational stress, coping and satisfaction among industrial workers. The study highlighted that for those whose work environment is risky and challenging, effective coping is of significance. Organizational support and co-worker support, workplace safety, adequate rest, and management were important factors that could help alleviate employees' stress and increase job satisfaction. The study is largely similar to the present study, as the workers involved in coal mining are subject to occupational hazards, production pressure, shift work, and tough working environment.

Research Methodology

- **Research Design**

The study will use a descriptive research design. Appropriateness of descriptive design is justified by the aim of the study: to describe the level of stress, coping and satisfaction of coal mining employees. It will also give them an understanding of the widespread stressors that employees face at work and how employees cope with these stressors.

- **Study Area**

The study will be carried out in Dhanbad district of Jharkhand, one of the major coal producing districts of India. Study population consists of coal mining employees of selected coal mines and related mining establishment in Dhanbad mines.

- **Population of the Study**

The respondents will be the employees of selected coal mining organizations at Dhanbad. Other employees may be included, such as technical workers, non-technical workers, supervisory staff, and other operational employees, to get a more comprehensive picture of workplace stress and employee satisfaction

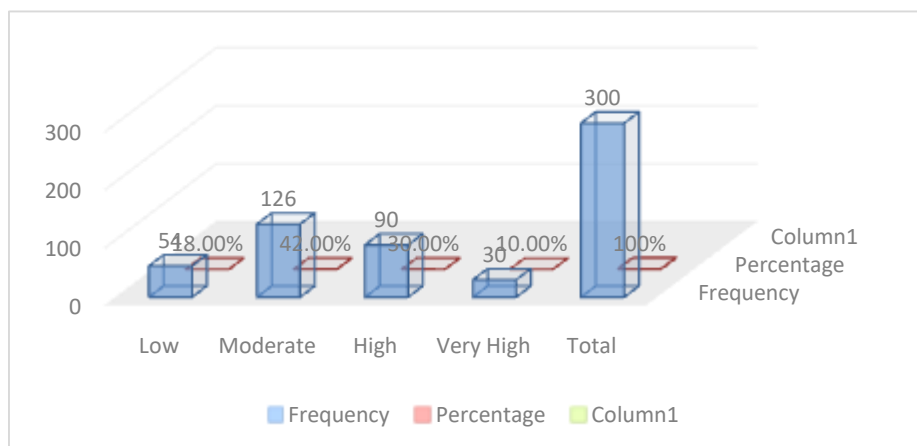
- **Sample Size**

In the study, 300 coal miners will be randomly sampled. Sample will consist of employees from various age groups, education levels, work history, job category and working shifts.

Data Analysis

Table 1: Level of Workplace Stress among Coal Mining Employees

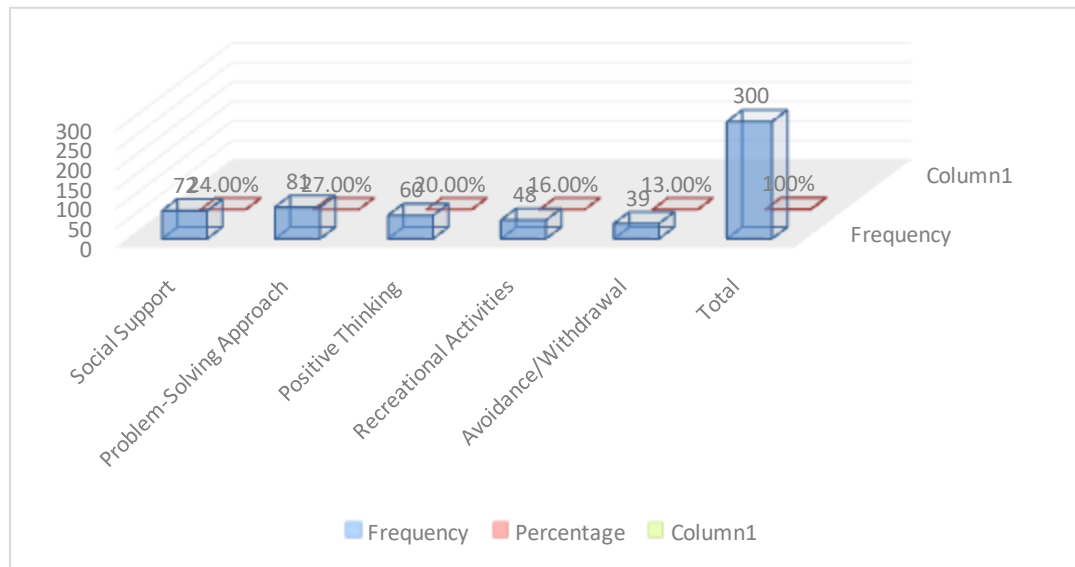
Level of Workplace Stress	Frequency	Percentage
Low	54	18.0%
Moderate	126	42.0%
High	90	30.0%
Very High	30	10.0%
Total	300	100%



Interpretation As seen in the table, 42.0% of the respondents had moderate level of stress at work, and 30.0% had high level of stress at work. An additional 10.0% of the workers had very high levels of stress at work. 18.0% experienced low stress. The results show that work-related stress is a major issue for workers in coal mines. The physical nature of the mining operations, work load, shift work, risk and pressure at work could be responsible for the stress of the employees.

Table 2: Coping Strategies Used by Coal Mining Employees

Coping Strategy	Frequency	Percentage
Social Support	72	24.0%
Problem-Solving Approach	81	27.0%
Positive Thinking	60	20.0%
Recreational Activities	48	16.0%
Avoidance/Withdrawal	39	13.0%
Total	300	100%



Interpretation

The table shows that 27.0% of respondents reported mainly used a problem-solving approach to coping with stress in the workplace, while 24.0% reported using social support. Approximately 20.0% used positive thinking and 16.0% used recreational activities. Avoidance/withdrawal was the primary coping strategy for the remaining 13.0%. Findings indicate that for the majority of employees, relatively positive coping strategies, such as problem solving and seeking social support, are preferred, while a few employees still use avoidance based coping strategies.

Discussion

According to the results of the study, stress at work place is a great problem among the coal mining workers in Dhanbad. Many workers said that they experienced moderate to high stress. This could relate to the physical workload, physical challenges, occupational risk factors, shift working, production pressure and working conditions of mining activities. The findings also show that different coping strategies are used by employees in dealing with stress. Problem solving and obtaining social support were relatively frequent coping strategies, indicating that workers try to deal with the stressors by taking action in order to help them and seek assistance from others, including their family and friends or social networks.

The results corroborate the general knowledge that occupational stress has an impact on employee health, motivation, work performance and employee satisfaction. Good coping strategies can help employees cope with demanding work situations. Thus, the emphasis in the workplace should be

not only on the reduction of stressors but also on enhancing employees' coping resources for the inevitable stressors in the workplace.

Conclusion

Based on the present study, it is concluded that the stress in work, coping mechanism and satisfaction among coal mining workers of Dhanbad is important in their working life. A coal miner's job is physically demanding, prone to hazards, and can cause multiple types of workplace pressure to the worker. The high number of hours worked, shift work, workload, production targets, occupational hazards, challenging working conditions and concerns about job security can all be a source of psychological and occupational stress for employees.

Results of the study suggest that a significant number of workers suffer from moderate and high levels of stress at work. The percentage analysis indicates 30.0% of respondents experienced high levels of stress, 10.0% of respondents experienced very high levels of stress, and 42.0% of respondents experienced moderate levels of stress. This suggests that stress in the workplace is not a trivial issue but one that should be dealt with properly. Meanwhile, 18.0% of workers indicated low stress, indicating that personal experiences of the mining environment vary amongst workers.

Also, the study emphasizes coping strategies as a way to cope with stress in the workplace. The most widely reported coping behaviors were problem solving, social support, and positive thinking. The results indicate that workers are trying to solve problems at the workplace, helping with others, and using positive psychology methods to deal with the problems. Some workers also reported avoidance or withdrawal which could be seen as a sign of difficulty in effective handling of working stresses.

Overall, there is a need for good stress management strategies in the coal mining industry highlighted. Management can create a safe and supportive work environment, to foster communication among workers and supervisors, to promote social support, to ensure proper rest and recreational facilities, and to conduct stress-management programmes. Other points that need attention are occupational safety and a proper distribution of work.

Therefore, proper handling of work stress and the encouragement of healthy coping mechanism among coal mining employees in Dhanbad can lead to improvement in the employee's wellbeing, work experience, job satisfaction and organizational effectiveness.

Suggestions

- Coal mining companies should routinely be alert to the sources of stress within the workplace for their employees.
- Programmes of stress-management and counselling should be established from time to time.
- It is important that staff engage in positive and solution-oriented coping mechanisms.
- Appropriate rest periods should be allowed, especially when working in shifts.
- Steps need to be taken to improve the level of occupational health and safety.
- It is important for management to keep lines of communication open with employees on issues in the workplace.
- Encourage the use of social-support systems among employees.
- Workload and production pressure should be appropriately managed.
- Improvements to recreational and employee-welfare facilities should be made.
- Employee satisfaction surveys should be routinely carried out to uncover issues in the workplace and to enhance organizational policies.

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