

INVESTIGATING THE EFFECTIVENESS OF STRESS MANAGEMENT STRATEGIES IN THE CONSTRUCTION INDUSTRY: A DEVELOPING COUNTRY'S PERSPECTIVE

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Abstract. The construction industry is one of the most demanding sectors, characterised by high levels of occupational stress among workers. This study investigated the factors contributing to stress and the effectiveness of stress management strategies employed in developing countries, using Zambia as a case study. The methodological approach adopted was quantitative, with data collected using a self-administered structured questionnaire containing closed-ended questions. Using simple random sampling, 69 respondents were sampled and participated in the study. These included skilled and unskilled workers on construction sites drawn from contractors registered with the National Council for Construction in grades 1 to 3. Data collected were analysed using descriptive statistics with relative importance index, as well as exploratory factor analysis. The findings revealed that the leading factors contributing to stress among construction workers included long working hours (RII = 0.748), high workload (RII = 0.707), unrealistic deadlines (RII = 0.696), unsafe working conditions (RII = 0.693), and low salaries (RII = 0.693). Further, results of factor analysis reveal that effective stress management strategies should be centred on improving communication and working hours, as well as on the provision of counselling and social activities for employees. The study recommends enshrining stress management in occupational health and safety regulations as a way of enhancing employee well-being.

Keywords: *Management, occupational, stress, strategies, worker well-being.*

INTRODUCTION

Stress is defined as any type of change that causes physical, emotional, or mental strain (Scott, 2024). If not handled well, stress can lead to serious health problems such as depression, high blood pressure, heart attacks, and strokes (Marks & King, 2024). Construction workers are individuals involved in physically building and maintaining infrastructure, including roads, buildings, and bridges. Studies have shown that stress-related symptoms are highly prevalent among construction professionals, underscoring the need for effective interventions (Gunasekara et al., 2024). The construction industry is globally recognised as one

of the most demanding and challenging sectors, characterised by intense competition and a constantly changing project-based environment (Zhang et al., 2024). Workers are mostly exposed to high work-related pressure due to physically demanding tasks and tight deadlines, which lead to stress. Workplace stress not only interferes with teamwork and organisational performance but also negatively affects workers' physical and mental well-being (Kaur, 2024), posing a serious threat to the sustainable growth of the industry. Despite the sector's rapid growth, little attention has been given to the psychological well-being of construction workers (Pamidimukkala et al., 2025). Consequently, stress-related issues such as burnout, absenteeism, and reduced productivity are becoming significant concerns (Smith, 2018).

While some construction firms have basic health and safety programmes, few address the mental well-being of workers (Greiner et al., 2022; Xu & Wu, 2023). According to Raliile et al. (2024), adaptive and maladaptive coping mechanisms in the construction sector significantly affect workers' ability to manage occupational stress. In Zambia, for instance, it is estimated that 53 % of construction workers experience high-stress levels (Mukumba et al., 2022). The construction industry plays a vital role in Zambia's economic growth (Manda et al., 2022); in 2022 the sector accounted for about 10.9 % of Gross Domestic Product (African Economic Outlook, 2024). This entails that unmanaged occupational stress can lead to decreased productivity and output in the sector. Therefore, this study investigated the factors contributing to occupation related stress in the Zambian construction industry (ZCI) as well as the effectiveness of the stress management strategies employed. This study is essential because stress management directly affects worker productivity, safety, and overall well-being.

1. STRESS MANAGEMENT STRATEGIES

Construction workers encounter various occupational stressors, which are categorised into physical, psychological, and organisational factors. Physical stressors include harsh working conditions, such as extreme temperatures, rain, dust, noise pollution from machinery, and repetitive strain injuries resulting from lifting heavy materials (Moohialdin, 2016). These conditions can lead to musculoskeletal disorders and other health complications (Alhashim et al., 2025).

Psychological stressors involve job insecurity due to temporary contracts and project-based work, work-life imbalance caused by long hours and lack of leave, and the fear of accidents inherent in a high-risk environment (Kunkcu et al., 2025; Sarhan et al., 2024; Pamidimukkala & Kermanshachi, 2025). The construction industry has a notably high suicide rate, with significant psychological impacts on workers (Tijani et al., 2021). Organisational stressors encompass poor communication from management, unrealistic deadlines leading to overtime, and delayed wages. Such factors contribute to increased stress and decreased job satisfaction among workers (Dipboye, 2018; Kaur, 2023).

Stress management strategies encompass a range of techniques and interventions employed by individuals and organisations to mitigate the adverse effects of stress. These strategies can be broadly categorised into individual coping

mechanisms, such as relaxation techniques, exercise, and social support, and organisational interventions, including improved communication, flexible work schedules, and employee assistance programmes, as shown in Table 1.

Table 1. Stress Management Strategies

Strategy	Attributes	Dimension	Author(s)
Improved Communication & Management Style	- Regular toolbox meetings - Conflict resolution - Training - Feedback sessions between site managers and workers	Organisational	Lingard & Cooke 2006; Hamid et al. 2014; Rouhanizadeh & Kermanshachi, 2021
Realistic Project Deadlines	- Use of project management tools - Phased construction plans - Realistic tender timelines based on capacity and weather patterns	Organisational	Lingard & Cooke, 2006; Apraku et al., 2020; Firose et al., 2025
Organisational Support Systems	- On-site counsellors - Mental health days - Peer-support groups - HR-led wellness check-ins - Partnering with NGOs for psychological support	Organisational	Amazue & Onyishi, 2016, Wu et al., 2018
Enhanced Safety Protocols	- Routine safety audits - Training on updated ZABS safety guidelines - Mandatory use of PPE	Organisational	Lingard & Cooke, 2006; Tang, 2025

Strategy	Attributes	Dimension	Author(s)
	- Digital safety compliance tracking		
Environmental Control	- Resting shade areas - Water stations and noise-cancelling barriers around heavy machinery	Environmental	Chandrasekaran & Ganeshprabhu, 2020; Campbell & Gunning, 2020
Use of Protective Equipment	- Heat-resistant clothing - Dust Masks - Sunblock Provision - Noise-cancelling headphones - Insulated boots for hot surfaces	Environmental	Darabont et al., 2025; Akbarzadeh et al., 2025
Work-Rest Cycles	- Scheduled tea/lunch breaks under shade - Rotation of workers between high-exertion and light-duty tasks - Flexible work shifts during extreme weather conditions	Environmental/Individual	Liang et al., 2021; Leung et al., 2025
Physical Health & Wellness Programmes	- Fitness sessions on weekends - Distribution of health brochures - Annual physicals, collaboration with local clinics for health screenings	Individual	Campbell & Gunning, 2020; Kurtzer et al., 2020

2. CHALLENGES ASSOCIATED WITH STRESS MANAGEMENT IN DEVELOPING COUNTRIES

Managing stress among construction workers especially in developing countries presents a unique set of challenges, stemming from the sector's inherent characteristics and the socio-economic conditions. One significant challenge is the transient nature of construction projects, workers often move between sites, leading to a lack of continuity in support systems and making it difficult to implement consistent stress management programmes (Choudhry et al., 2013). This mobility also hinders the establishment of long-term relationships that are crucial for fostering a sense of community and support. The informal employment practices prevalent in developing countries further complicate matters. Many workers are employed on a casual basis, lacking job security and access to formal support structures, including mental health services (Othman et al., 2018). Furthermore, construction work is often associated with physical strength and resilience, leading to a reluctance among workers to acknowledge or seek help for mental health concerns. This stigma is exacerbated by the lack of awareness regarding mental health issues and available support services (Ng et al., 2019). Furthermore, the limited resources available to construction companies, particularly small and medium-sized enterprises, pose a significant obstacle to implementing effective stress management interventions. Many companies prioritize immediate project deadlines and cost-effectiveness over worker well-being (Ya et al., 2024).

The environmental stressors inherent in construction work, such as exposure to extreme temperatures, noise, and hazardous materials, also contribute to the complexity of stress management. These factors can lead to physical fatigue and exacerbate psychological stress. Additionally, the socio-economic disparities within the workforce, including financial insecurity and family pressures, create a complex web of stressors that are difficult to address through traditional workplace interventions (Teixeira et al., 2020). The language barrier can also present a challenge in multi-lingual work environments. Finally, the need for culturally relevant and sensitive interventions is paramount (Wong et al., 2022), as generic stress management strategies may not be effective in the Zambian context.

3. METHODOLOGY

The methodological approach adopted for this study was quantitative, leaning towards positivism, with data collected using a structured self-administered questionnaire containing closed-ended questions. A total of 85 questionnaires were distributed to contractors registered in grades one to three, of which 69 were returned. Using a simple random sampling technique, respondents included skilled and unskilled workers on construction sites. Contractors in these grades were selected because they are the ones who are handling most of the work in the Zambian construction industry. Hence, employees are a huge workforce. A summary of questionnaire distribution among contractors is shown in Fig. 1.

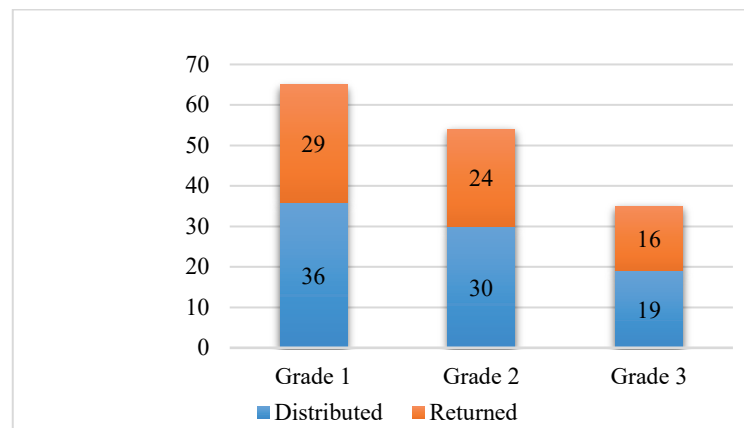


Fig. 1. Questionnaire distribution among contractors.

The development of the instrument (questionnaire) used for data collection was informed by a comprehensive literature review, from which stress causers, management strategies and items measuring effectiveness of strategies were identified and incorporated. Respondents were asked to rate the extent to which the identified factors contributed to stress in the Zambian construction industry. More so, respondents were asked to rate extent to which the identified stress management strategies were implemented, as well as their effectiveness in the Zambian construction industry.

To measure the respondents' agreement levels, statements were rated on a five-point Likert scale. The scale of 1 to 5 was used, where 1 = Strongly disagree (≥ 1.00 and ≤ 1.80); 2 = Disagree (≥ 1.81 and ≤ 2.60); 3 = Neutral (≥ 2.61 and ≤ 3.40); 4 = Agree (≥ 3.41 and ≤ 4.20), and 5 = Strongly agree (≥ 4.21 and ≤ 5.00).

Data collected were analysed using descriptive statistics with a relative importance index, as well as factor analysis. Factor analysis was carried out to identify the key factors in stress management and explain the extent to which each item in the dataset was explaining the respective factors (variables).

4. RESULTS

4.1. Demographic Characteristics of the Study Respondents

Out of the 85 questionnaires distributed, 69 were completed and returned. An analysis of the responses indicated that education levels among respondents were distributed as follows: 43 % – tertiary education, 36 % – senior secondary education, 12% – junior secondary education, with 9 % having no formal education as shown in Fig. 2.

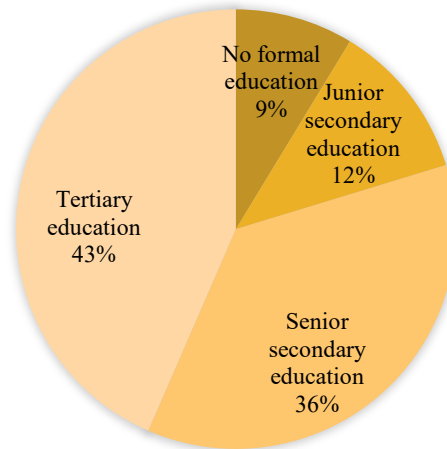


Fig. 2. Respondents' level of education.

Furthermore, in relation to work experience, the majority of the respondents had work experience of between 1–5 years ($n = 28$; 40.6 %), followed by 26.1 % representing those with 11–15 years of experience. Others had 6–10 years of experience ($n = 15$; 21.7 %) and over 15 years of experience ($n = 8$; 11.6 %). The summary of the respondents' work experience is provided in Table 2.

Table 2. An Overview of Respondents' Work Experience

Work Experience	Frequency	Percentage, %
1–5 years	28	40.6
6–10 years	15	21.7
11–15 years	18	26.1
above 15 years	8	11.6
Total	69	100

4.2. Factors Contributing to Occupation Related Stress

To identify the factors contributing to stress among construction workers, respondents were asked to rate the extent to which each factor contributed to stress. For data analysis, a Relative importance index (RII) was used. According to Akadiri (2011), RII values fall into five important levels: High (H) ($0.8 \leq \text{RI} \leq 1$), High-Medium (H-M) ($0.6 \leq \text{RI} < 0.8$), Medium (M) ($0.4 \leq \text{RI} < 0.6$), Medium-Low (M-L) ($0.2 \leq \text{RI} < 0.4$), and Low (L) ($0 \leq \text{RI} < 0.2$).

The findings revealed that the five leading factors contributing to stress were long working hours ($\text{RII} = 0.748$), high workload ($\text{RII} = 0.707$), unrealistic deadlines ($\text{RII} = 0.696$), unsafe working conditions ($\text{RII} = 0.693$), and low salaries or delayed wages ($\text{RII} = 0.693$), as shown in Table 3. Likewise, the mean scores for the aforementioned items were above 3.40.

Table 3. Factors Contributing to Occupational Stress

S/N	Stress Factors	Mean	Standard Deviation	RII	Ranking
1	Long Working Hours (>8 h)	3.84	1.066	0.748	1
2	High Workload	3.74	1.146	0.707	2
3	Unrealistic Deadlines	3.54	1.119	0.696	3
4	Unsafe Working Conditions	3.48	1.158	0.693	4
5	Low Salaries or Delayed Wages	3.46	1.092	0.693	4
6	Lack of Job Security	3.39	1.101	0.678	5
7	Limited Recreational/Wellness Programmes	3.35	1.069	0.670	6
8	Poor Worker-Supervisor Communication	3.28	1.123	0.655	7
9	Lack of Support from Colleagues	3.06	1.149	0.612	8
10	Lack of Stress Management Education	3.03	1.283	0.606	9
11	Limited Rest Breaks	2.94	1.149	0.588	10

Other factors were rated as having moderate contribution to stress in the ZCI; the factor with the least effect had to do with the provision of limited rest breaks during working hours, having recorded an RII value of 0.588. However, overall, the standard deviations for most items were above 1, denoting divergences in responses. Nevertheless, this order of stress factors provides valuable insights necessary for developing interventions aimed at enhancing employee well-being.

4.3. Stress Management Strategies

Regarding the stress management strategies employed at construction worksites, the finding revealed that the most common strategies based on the mean scores as well as the relative importance index were onsite counselling services (Mean = 3.69, RII = 0.738), financial reward for overtime work (Mean = 3.68, RII = 0.735), financial wellness support (Mean = 3.68, RII = 0.735), access to welfare facilities (RII = 0.719), clear communication of roles (RII = 0.712), and provision for leave days (RII = 0.682), as shown in Table 4. The respondents were neutral in terms of the implementation of other stress management strategies based on their mean scores that fell in the range of 3.32 to 2.93. However, the standard deviations for most items were above 1, denoting diverges in responses. This suggests the need for more interventions aimed at promoting the implementation of stress management strategies.

Furthermore, a factor analysis of stress management strategies was performed. The results revealed that Kaiser-Meyer-Olkin (KMO) value was 0.690. Although this value fell within the mediocre range (Shrestha, 2021), it is still considered adequate for the factor analysis. Moreover, the Bartlett's test of sphericity was found significant ($p = 0.000$), thereby indicating that the factor analysis was appropriate (Chisumbe et al., 2024).

Table 4. Implementation of Stress Management Strategies

Stress Management Strategy	Mean	Standard Deviation	RII	Ranking
Onsite counselling services	3.69	0.966	0.738	1
Financial reward for overtime work	3.68	1.152	0.735	2
Financial wellness programmes	3.68	0.999	0.735	2
Access to welfare facilities	3.59	1.048	0.719	3
Clear role communication	3.56	1.111	0.712	4
Leave days for stress relief	3.41	1.162	0.682	5
Standard 8-hour work shifts	3.32	1.263	0.632	6
Healthy and safe work environment	3.16	1.158	0.623	7
Adequate rest breaks during work	3.12	1.290	0.614	8
Performance incentives/bonuses	3.10	1.178	0.614	9
Peer support groups	3.07	1.129	0.609	10
Management organised recreational activities	3.04	1.169	0.591	11
Conflict resolution systems	2.96	1.265	0.586	12
Regular stress management toolbox talks	2.93	1.240	0.544	13

The Principal Component Analysis revealed the presence of four components with eigenvalues exceeding 1, explaining 43.043 %, 14.083 %, 8.944 % and 7.281 % of the variance, respectively. However, an inspection of the scree plot revealed a clear break after the second component. The two-component solution explained 57.126 % of total variance, with Component 1 contributing 43.043 % and Component 2 contributing 14.083 %, as shown in Table 5.

The rotated matrix based on two factors extraction revealed that six items were loaded on Component 1, while seven items were loaded on Component 2, meaning that out of the fourteen items only one was not returned. The factor loadings for all retained items were greater than the recommended 0.4 (Mambwe et al, 2021; Chisumbe et al, 2024). Each of the two distinct components captured different dimensions of stress management strategies. The first component captures stress management strategies related to improved working hours and communication. Variables loading onto this component included clear communication of roles and responsibilities (0.835), normal working hours shift (0.831), ensuring healthy and safe work environment (0.735), having conflict resolution systems in place (0.729), regular toolbox talks on stress and well-being (0.728), and provision for adequate health breaks during a normal shift (0.688), as shown in Table 6.

Table 5. Total Variance Explained by Stress Management Strategies

Components	Eigenvalues	% of Variance	Cumulative %	Difference in cumulative %
1	6.026	43.043	43.043	43.043
2	1.972	14.083	57.126	14.083
3	1.252	8.944	66.069	
4	1.019	7.281	73.351	
5	0.762	5.446	78.796	
6	0.706	5.041	83.837	
7	0.629	4.494	88.331	
8	0.429	3.064	91.395	
9	0.329	2.353	93.749	
10	0.283	2.018	95.766	
11	0.277	1.980	97.747	
12	0.156	1.116	98.862	
13	0.103	0.738	99.601	
14	0.056	0.399	100.000	

Table 6. Extracted Factors from Stress Management Strategies

Factor	Category	Sub-factors	Factor loading
1	Work hours and communication	Clear communication of roles and responsibilities	0.835
		Normal working hours shifts (i.e., 8 h)	0.831
		Work environment is healthy and safe	0.735
		Conflict resolution systems	0.729
		Regular toolbox talks on stress and well-being	0.728
		Adequate health breaks	0.688
2	Counselling and social activities	Support groups among fellow workers	0.832
		Counselling services are provided on the worksite	0.703
		Recreational/social activities organized by management	0.701
		Financial wellness support	0.697
		Incentives (e.g., bonuses, rewards)	0.674
		Leave days	0.668
		Access to welfare facilities	0.571

The second component captures stress management related to the provision of counselling and social activities. Factor loadings on this component consisted of creation of support groups among fellow workers (0.832), provision of counselling services to employees (0.703), organising social activities (0.701), and financial wellness support (0.697), leave days (0.668), as well as access to welfare facilities (0.571). Additionally, an inspection of the Cronbach's alpha value revealed a value of 0.891 denoting an acceptable internal reliability (Aigbavboa, 2014), as shown in Table 7.

Table 7. Reliability Statistical Tests

Reliability Statistics	
Cronbach's Alpha	Number of Items
0.891	13

Overall, the findings reflect a coherent structure across all factors, indicating that the identified attributes were strongly aligned with the constructs; this validates the robustness of the factors.

4.4. Effectiveness of Stress Management Strategies

The findings revealed that the stress management strategies employed in the ZCI were perceived to have a considerable contribution to effective stress management, as denoted by mean scores of above 3.40 for most items, as shown in Table 8.

Table 8. Effectiveness of the Strategies Employed in Managing Stress

Attributes of Effective Stress Management	Mean	Standard Deviation	RII	Ranking
Improved work-life balance	4.04	0.756	0.809	1
Improved communication between workers & managers	3.94	0.873	0.788	2
Lower work-related accidents	3.91	0.800	0.783	3
Improved wellness (physical & mental)	3.83	0.785	0.765	4
Number of workers resigning is low	3.81	0.791	0.762	5
Improved team cooperation	3.78	0.937	0.757	6
Reduced absenteeism	3.78	0.998	0.757	6
Increased worker motivation	3.74	0.760	0.748	7
Lower conflict among workers and supervisors	3.72	0.889	0.737	8
Increased job satisfaction	3.59	0.773	0.719	9
Increased productivity and work output	3.30	1.180	0.665	10

The results imply that though the strategies employed are effective, they are not very effective, requiring more interventions based on the mean scores of less than

4.21 for all the items. Further, the results revealed that improved work-life balance is ranked to be the most important attribute in effective stress management (RII = 0.809).

Likewise, the factor analysis of stress management strategies was performed. The results revealed Kaiser-Meyer-Olkin (KMO) value of 0.690, which is considered adequate for the factor analysis. Importantly, the Bartlett's test of sphericity was found significant ($p = 0.000$), indicating that the factor analysis was appropriate (Chisumbe et al., 2024).

The Principal Component Analysis revealed the presence of two components with eigenvalues exceeding 1, explaining the variance of 49.441 % and 13.937 %, respectively. The two-component solution explained a total variance of 63.378 %, with Component 1 contributing 49.441 % and Component 2 contributing 13.937 %, as shown in Table 9.

Table 9. Total Variance Explained by Effective Stress Management

Components	Eigenvalues	% of Variance	Cumulative %	Difference in cumulative %
1	5.439	49.441	49.441	49.441
2	1.533	13.937	63.378	13.937
3	0.968	8.801	72.180	
4	0.776	7.058	79.237	
5	0.722	6.561	85.798	
6	0.504	4.585	90.383	
7	0.353	3.207	93.590	
8	0.268	2.433	96.023	
9	0.186	1.694	97.717	
10	0.179	1.624	99.341	
11	0.073	0.659	100.000	

The rotated matrix based on two factors extraction revealed that six items were loaded on Component 1, while seven items were loaded on Component 2, meaning that out of the fourteen items only one was not returned. The factor loadings for all retained items were greater than the recommended 0.4 (Chisumbe et al, 2024). Each of the two distinct components captured different dimensions of stress management strategies. The first component captures stress management strategies related to working hours and communication. Key variables loading onto this component include clear communication of roles and responsibilities (0.835), normal working hours shift (0.831), ensuring healthy and safe work environment (0.735), having conflict resolution systems in place (0.729), regular toolbox talks on stress and well-being (0.728), and provision for adequate health breaks during a normal shift (0.688), as shown in Table 10.

Table 10. Extracted Factors from Effectiveness Stress Management

Factor	Category	Sub-factors	Factor loading
1	Motivation and productivity	Increased productivity and work output	0.810
		Increased worker motivation	0.777
		Reduced absenteeism	0.698
		Number of workers resigning is low	0.627
2	Work-life balance and communication	Improved communication between workers & managers	0.862
		Lower work-related accidents	0.816
		Improved work-life balance	0.805
		Improved team cooperation	0.802
		Increased job satisfaction	0.783
		Improved wellness (physical and mental)	0.687
		Lower conflict among workers and supervisors	0.656

The second component captures stress management related to counselling and social activities. Key items loading on this component include support groups among fellow workers (0.832), provision of counselling services to employees (0.703), organising social activities (0.701), financial wellness support (0.697), leave days (0.668), as well as access to welfare facilities (0.571). Additionally, an inspection of the Cronbach's alpha value revealed a value of 0.891, denoting an acceptable internal reliability (Aigbavboa, 2014), as shown in Table 11.

Table 11. Reliability Statistical Tests

Reliability Statistics	
Cronbach's Alpha	Number of Items
0.885	11

Overall, the findings reflect a coherent structure across all factors, signifying that the attributes identified are strongly aligned with the constructs; this validates the robustness of the factors.

5. DISCUSSION

5.1. Factors Contributing to Occupational Stress

Among construction workers, the leading factors contributing to occupational stress were long working hours, high workload, unrealistic deadlines, and low salaries or delayed wages. These factors were equally cited in other studies, for example, Maqsoom et al. (2018) pointed out that tight deadline and late working

hours made the construction working environment stressful, thereby negatively affecting workers' health and safety. Bayir and Gundes (2024) also noted that construction workers suffered from stress due to unrealistic deadlines, which led to extended working hours and frequent disruptions to their schedules. Regarding low wages and delayed salaries contributing to high stress levels among construction workers, the findings align with literature. Wells and Poverty (2016), and Magodhini et al. (2025) posit that financial difficulties caused by low salaries and delayed payments result in serious stress for construction workers.

5.2. Stress Management Strategies

Regarding the stress management strategies, the factor analysis indicates that efforts should primarily focus on improving communication and working hours, as well as providing counselling services and supporting social activities. These results are supported by literature, for example, Hamid et al. (2014) pointed out that effective communication between management and employees would allow for employees' concerns to be heard, thereby lowering anxieties, which contribute to stress. Rouhanizadeh and Kermanshachi (2021) also noted that good communication among the co-workers can lead to stress relief and consequently prevent the corresponding adverse results. Similarly, regarding working hours, literature posits that construction organisations should adopt stress management strategies that are aimed at reducing the long working hours and tiredness, arguing that this has the potential to reduce the rate of stress and ensure a healthy and safe construction work environment (Apraku et al., 2020; Firose et al., 2025). This points to the need for construction companies and occupational health and safety authorities to address the issues of long working hours as a key stressor on construction worksites.

With regard to strategies focusing on promotion of counselling and social activities, the findings align with Omeje et al. (2023), who opine the need for promotion of counselling programmes as an effective way of handling stress among technical workers. This viewpoint was shared by Nwaogu and Chan (2022), as well as Almhesni et al. (2024), who underscored the need for employee-assisted programmes that provide for counselling and open communication. In terms of incorporating the social activities, Liang et al. (2021b) and De Silva et al. (2017) assert that organising social gatherings and team building activities helps in managing stress among employees, thereby contributing to creation of a safe work environment.

5.3. Effectiveness of Stress Management Strategies

The results indicate that, although a few stress-management strategies currently in place are somewhat effective, additional measures are required to achieve the desired level of effectiveness. Profoundly, the results from factor analysis revealed that effective stress management in the construction work environment is evidenced by employee motivation and productivity, as well as enhanced life-work balance and good communication. These findings are supported by Twinamatsiko and Ealias (2025), who posit that high levels of stress in the construction industry are often associated with burnout, decreased morale, and diminished performance. The

viewpoint shared by Rouhanizadeh and Kermanshachi (2021) noted that mental health issues were increasingly affecting the performance of workers in the construction industry.

Another important attribute of effective stress management as suggested by the findings is enhanced work-life balance. This also is supported by Ross and Vasantha (2014), who argue that the complex nature of stress influences the health and work-life balance. Likewise, Manivannan et al. (2022) highlight that work-related stressors significantly affect personal life. Akpogume and Anifowose (2025) also established that effective stress management would lead to improved work-life balance.

CONCLUSIONS

The subject of stress management in the construction industry continues to pose a considerable challenge, owing to long working hours, high workload, unrealistic deadlines, and unsafe working conditions, among other factors. This paper highlights that few stress management strategies are implemented in the Zambian construction industry, exposing a gap in addressing stress among construction workers in developing countries. This study underscores the need for stress management strategies to be centred on improving work hours and communication, as well as providing for counselling and social activities at work. The paper, therefore, recommends that the regulatory bodies promote the establishment of stress management programmes targeted at construction workers. Moreover, stress management should be enshrined in occupational health and safety regulations as way of enhancing employee well-being.

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