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Research Article

Quality of Life in Highway Construction Workers

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ABSTRACT

Background: With millions of workers, the construction sector in India is the second-largest and fastest-growing industry. They do, however, confront significant risks at work. Their physical and mental health are seriously jeopardized by extended exposure to toxic materials, long workdays, and unsuitable working conditions. Workers are susceptible to emotional distress, skin conditions, respiratory problems, and musculoskeletal illnesses. Health hazards are increased as a result of the industry's expansion, which puts productivity ahead of worker safety. To protect construction workers' health and foster a safer, healthier workplace, these issues must be addressed.

Aim: To study about quality of life and awareness of hazards in highway construction workers.

Materials and method: A 6 months period was used for this observational study design. 100 highway construction workers participated in this study. Responses of these individuals were recorded through a standardised questionnaire called SF36.

Result: Out of 100 participants, 27% workers have better health than 1 year ago, 12% workers have somewhat better health than 1 year ago, 45% workers have about same health, 10% workers have somewhat worse health now than 1 year ago, 6% workers have much worse health than 1 year ago.

Conclusion: The study explains about the quality of life in highway construction workers, which is workers having better health are more than the workers who have much worse health.

Keywords: Quality of life (QoL), highway construction workers, awareness of hazards

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INTRODUCTION

WHO defines quality of life (QOL) as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns^[1]

Quality of life (QOL) is challenging to assess and include into scientific research since it can be described in a variety of ways. When treatment for sickness has an impact on the biological integrity, as well as the psychological, social, and economic well-being of any definition for persons should be all covering while permitting individual elements should be specified. As a result, the effects of various illness conditions or treatments for general or particular elements of QoL needs to be ascertained^[2] QoL consists of basically domains like physical, emotional, social and functional wellbeing. Symptoms of illness, adverse

drug reactions, and overall physical deterioration all contribute to physical well-being, as thought about by the patient. Emotional well-being is linked but separate from physical well-being. It is bipolar, expressing both good (well-being) and negative (distress) emotions. Social domain, this dimension's content is varied and includes things like intimacy, including sexuality, the functioning of families, maintaining leisurely pursuits, and perceived social support. The term "functional status" describes a person's capacity to carry out tasks associated with their goals, requirements, or social position. This relates to everyday life tasks including eating, dressing, walking, and taking a shower at the most basic level.^[3]

Given that one spends one-third of their time at work, occupational health is crucial. In order to promote good

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occupational health, it is crucial to follow their ergonomic advice.^[4]

The construction of highway can be hard and draining. It calls for a great deal of physical effort and concentration, as well as repeated work and the use of large, movable equipment. Each of these elements has a part in the comparatively high prevalence of injuries in the construction industry.^[5]

A majority of these workers are semi-skilled, unskilled therefore, dust, grime, noise, hazardous chemicals, and biological materials are all present in intolerable amounts for these personnel. Among the many safety risks, they encounter at work are those associated with poor or insecure performance, ergonomic risks from lifting large objects, and conditions of employment and stress associated to the job, placement risk to one's health and life. It goes beyond an employee's risking not just his safety but also his health and welfare. But while Every year, more than a thousand workers are slain. In addition, many more people get sick from accident, health issues that frequently get unreported in the construction industrial sector (International Labour Organization 2014).^[6]

Migrant construction workers also face poor physical, psychological and social wellbeing. In between the city's skyscrapers are temporary sheds and roadside tents accommodating thousands of construction workers. They either live on the side of the road or in a cellar or construction site. The sheds lack electricity, water, toilets, safety, sanitation, and ventilation. Many illnesses frequently afflict the workers. Living spaces filled with flies and mosquitoes, as well as unclean water and surroundings, are the causes of frequent disease.^[7]

The quality of life of highway construction workers is impacted by socioeconomic factors that extend beyond the hazards to safety and physical challenges encountered on the job site. Low wages, limited access to healthcare, and insufficient social

support networks are some of the issues that can have a detrimental effect on a worker's overall standard of living and psychological wellness. Furthermore, the transient nature of construction labor can break social and familial ties, which makes people feel even more detached and alienated. Understanding highway construction workers' quality of life is crucial to safeguarding their health and addressing any challenges they may face.

The goal of this study is to identify the factors affecting their quality of life with the aid of social support, job satisfaction, safety concerns, and working circumstances. Gaining knowledge of these variables will help us create focused interventions that will raise highway construction workers' general standards of living and, in the process, make the workforce healthier and more flexible.

To protect highway construction workers' well-being and handle any obstacles they may encounter, it is essential to understand their quality of life. Earlier study was done on the aspect of quality of life on overall construction workers but this study is only about quality of life in highway construction workers.

METHODS AND MATERIALS

The study was observational type of study with 100 participants conducted in karad, Maharashtra. The study duration was about 6 months The review was conducted with the approval of Ethical committee of the institution where the study was conducted. By reviewing the inclusion and exclusion criteria of the participant, the sample population was selected. The participants were told about the study and consent form was taken from them regarding the study. Questionnaire was given to the participants in the form of link and told to fill them appropriately. Participants responses to the question were then recorded.

RESULT

According to static analysis:

Data:

Score	Frequency
50-100	676
0-50	23
0	9

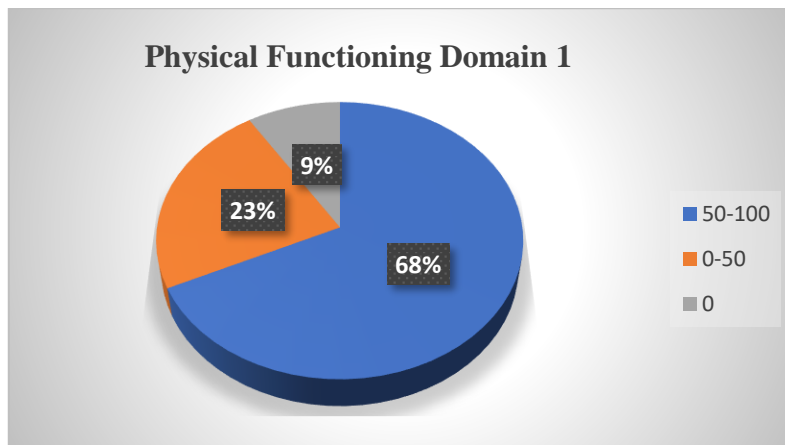


Fig.1 Physical Functioning Domain

Interpretation:

In the above graph, it shows that 68% workers (50-100) had no limitations in physical functioning, 23% workers (0-50) had

mild limitation in physical functioning and 9% workers had severe limitation in physical functioning.

Score	Frequency
100	302
0	98

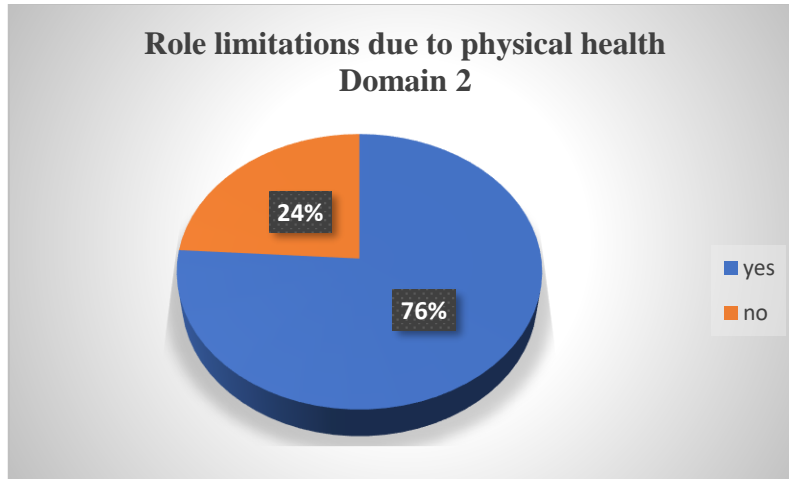


Fig.2 Role Limitations Due to Physical Health Domain 2

Interpretation:

In the above graph, it shows that 24% workers (100) had no role limitations due to physical health, 76% (0) workers had severe role limitations due to physical health.

Score	Frequency
100	78
0	222

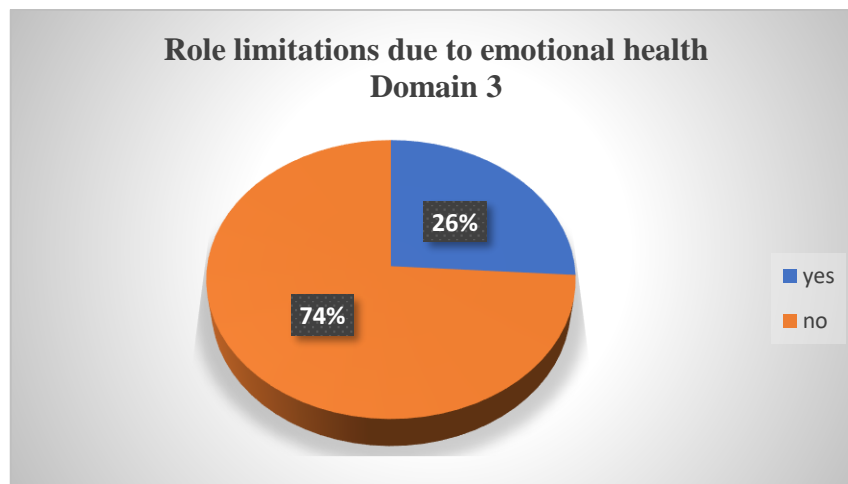


Fig.3 Role Limitations Due to Emotional Health Domain 3

Interpretation:

In the above graph, it shows that 74% workers (100) had no role limitations due to emotional health, 26% workers (0) had severe role limitations due to emotional health.

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Score	Frequency
0	6
20	33
40	50
60	64
80	112
100	135

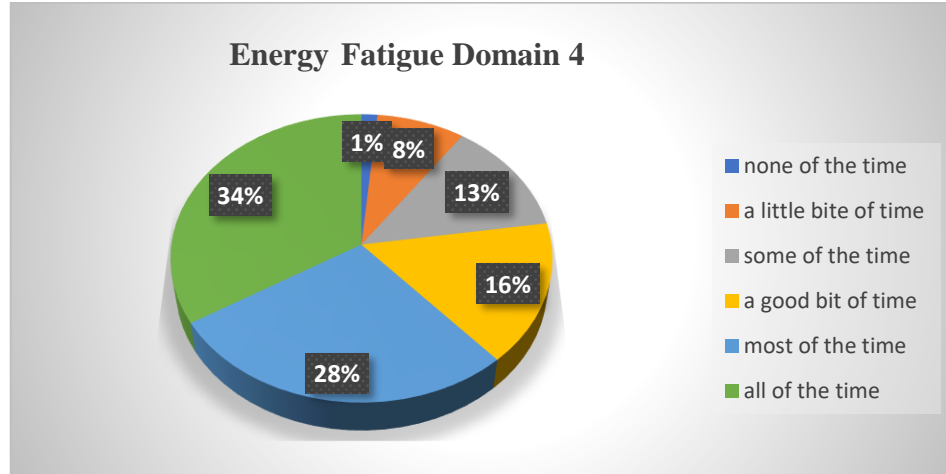


Fig.4 Energy Fatigue Domain 4

Interpretation:

In the above graph, it shows that 1% workers showed no affection of energy fatigue, 8% workers showed mild affection of energy fatigue, 13% workers showed moderate affection of

energy fatigue, 16% workers showed somewhat severe affection of energy fatigue, 28% workers showed severe affection of energy fatigue, 34% workers (0) showed very severe affection of energy fatigue.

Score	Frequency
100	197
80	143
60	70
40	49
20	37
0	4

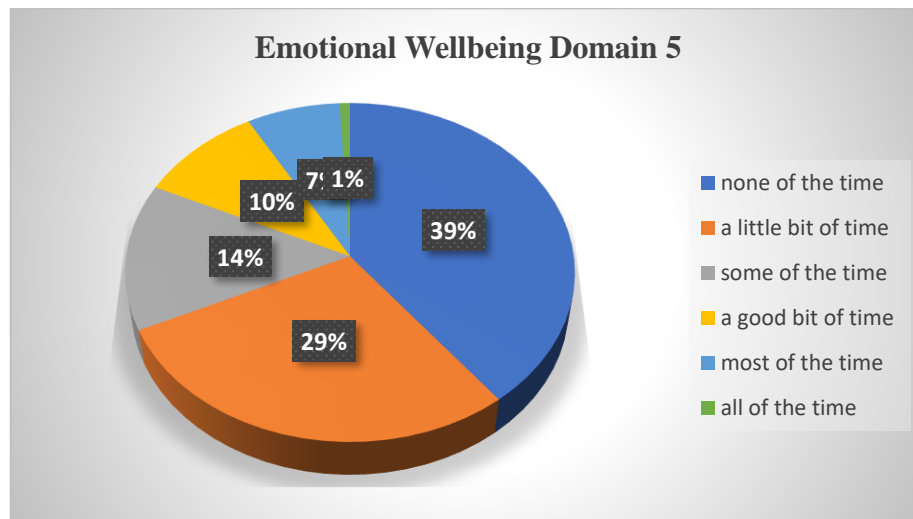


Fig.5 Emotional Wellbeing Domain 5

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Interpretation:

In the above graph, it shows that 39% workers showed no affection in emotional wellbeing, 29% workers showed mild affection in emotional wellbeing, 14% workers showed moderate affection in emotional wellbeing, 10% workers

showed somewhat severe affection in emotional wellbeing, 7% workers showed severe affection in emotional wellbeing, 1% workers (0) showed very severe affection in emotional wellbeing

Score	Frequency
100	76
75	77
50	25
25	18
0	4

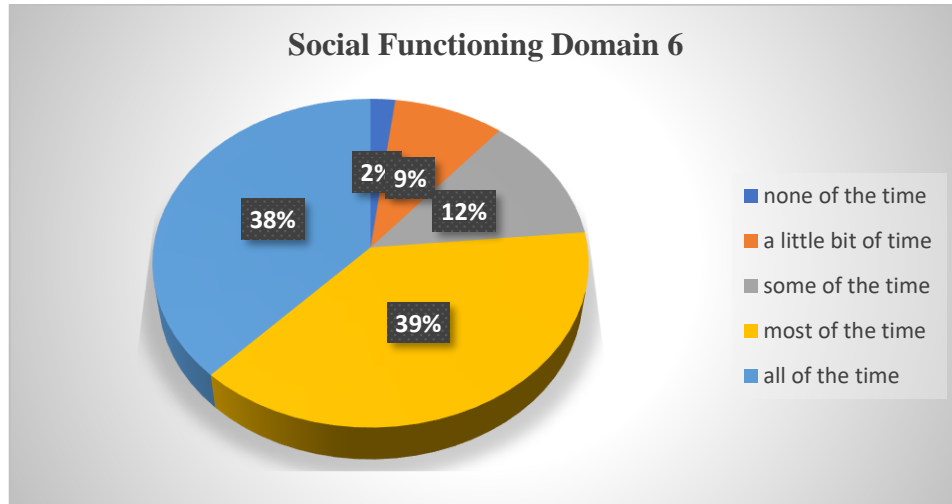


Fig.6 Social Functioning Domain 6

Interpretation:

In the above graph, it shows that 38% workers had no limitation in social functioning, 39% workers had mild limitation in social functioning, 12% workers had moderate limitation in social

functioning, 9% workers had severe limitation in social functioning, 2% workers had very severe limitation in social functioning.

Score	Frequency
100	78
80	52
60	28
40	23
20	12
0	7

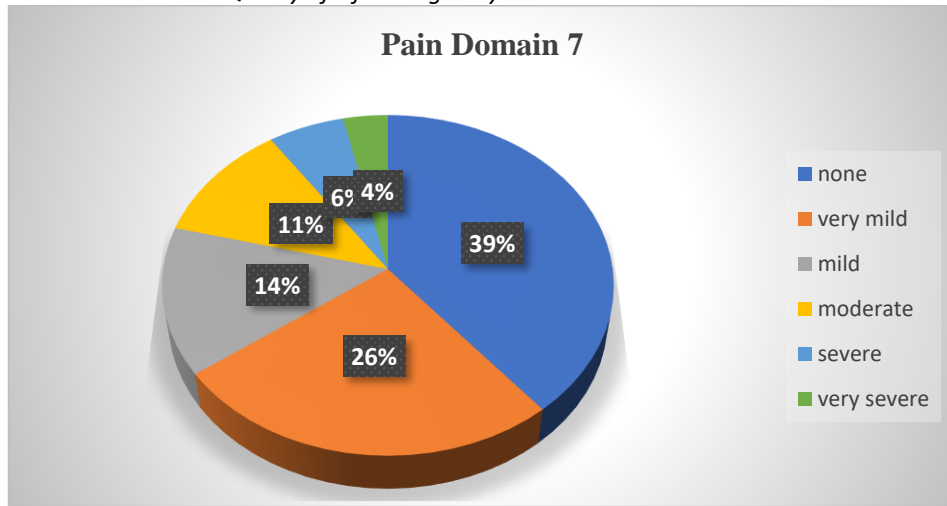


Fig.7 Pain Domain 7

Interpretation:

In the above graph, it shows that 39% workers showed no body pain, 26% workers showed mild body pain, 14% workers

showed moderate body pain, 11% workers showed somewhat severe body pain, 6% workers showed severe body pain, 4% workers showed very severe body pain.

Score	Frequency
100	190
75	137
50	120
25	48
0	5

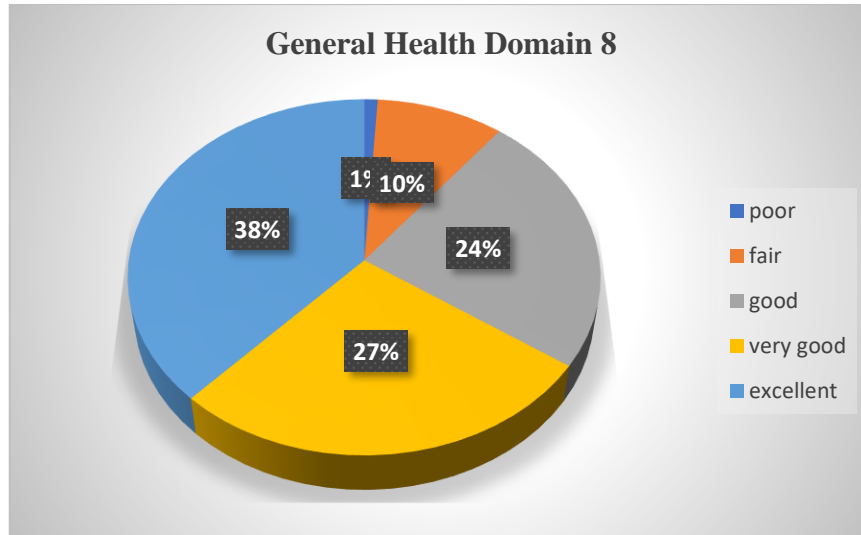


Fig.8 General Health Domain

Interpretation:

In the above graph, it shows that 38 % of workers health is excellent, 27% of workers health is very good, 24% of workers

health is good, 10 % of workers health is fair, 1 % of workers health is poor.

Score	Frequency
100	27
75	12
50	45
25	10
0	6

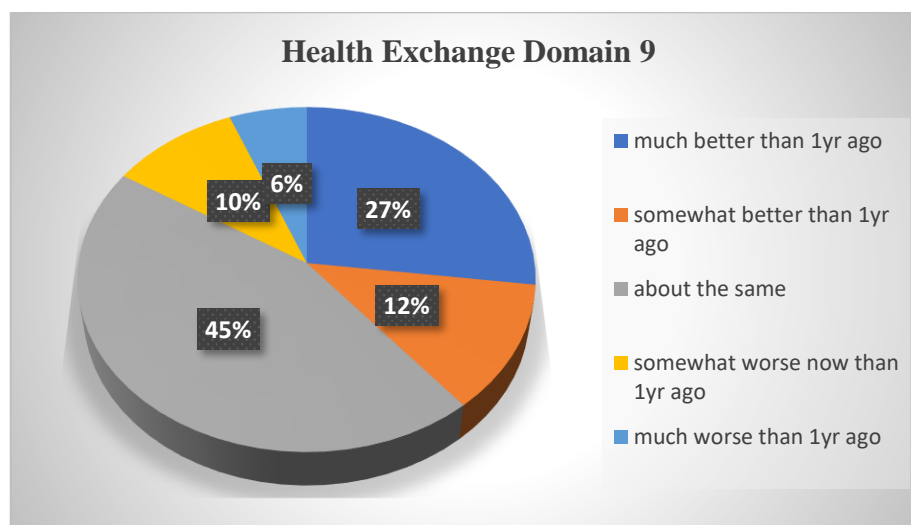


Fig.9 Health Exchange Domain 9

Interpretation:

In the above graph, it shows that 27% workers have better health than 1 year ago, 12% workers have somewhat better health than 1 year ago, 45% workers have about same health, 10% workers have somewhat worse health now than 1 year ago, 6% workers have much worse health than 1 year ago.

DISCUSSION

A person's quality of life is closely linked to the interplay between their physical and mental health, and for highway construction workers, the demanding nature of their jobs frequently upsets this delicate balance. Key elements of quality of life that have a significant impact on overall health include lifestyle modifications, social interactions, physical exercise, and emotional well-being. Unfortunately, there is a knowledge gap among highway construction workers regarding the significance of quality of life and its implications on their physical and mental health, which this study attempted to fill by examining awareness among highway construction workers.

The results of the study showed concerning ignorance. The participants showed a poor comprehension of health risks, stress management techniques, and job dangers. ^[8]

Human misery and loss are greatly increased by occupational illnesses and accidents. The financial price is high. However, there is typically little public knowledge about occupational safety and health. Too often, it isn't given the attention it needs. This needs to change, and national action must be sparked and accelerated. ^[9]

Women reported higher levels of emotional anguish, whereas younger workers (20–30 years old) were more conscious of physical health concerns, according to demographic research. Employees with less education showed a more limited comprehension of mental health. According to these findings, specific interventions are required, such as:

1. Customized training courses emphasizing stress reduction, mental health, and work dangers.
2. Availability of healthcare and routine health examinations.
3. Promoting physical activity and good living choices.
4. Building social support systems

The suggestions Providing construction workers with compensation or health insurance does not equate to their well-being. However, in order to improve wellbeing in the construction industry, we must address issues like work pressure, deadlines, working in harsh weather, inhuman treatment at work, discrimination in workplaces, overindulging workers in heavy manual activities, inadequate worker supervision, and lack of work autonomy. ^[10]

The study's findings also made clear how crucial it is to take into account the particular difficulties faced by those who build highways. Their vulnerability is exacerbated by physical demands, long work hours, and exposure to dangerous products. The results of the study also imply that education initiatives and awareness efforts had to be customized to meet particular needs. For example, women might need more support for their emotional well-being, while younger workers might benefit from focused treatments that emphasize physical health.

It also highlight how important it is for employers, legislators, and medical experts to work together. Together, they can create practical plans to raise awareness, offer assistance, and enhance the lives of highway construction workers.

All things considered, this study emphasizes how urgent it is to close the knowledge gap about the standard of living of workers involved in highway building. We can create focused interventions to improve this population's physical and mental health by comprehending its unique vulnerabilities and problems.

CONCLUSION

The study concluded the understanding regarding quality of life in highway construction workers is such that 27% workers have better health than 1 year ago, 12% workers have somewhat better health than 1 year ago, 45% workers have about same health, 10% workers have somewhat worse health now than 1 year ago, 6% workers have much worse health than 1 year ago.

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