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Research article

To analyse quality of life in industrial worker using work related quality of life questionnaire

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ABSTRACT

Workplace culture or management style that encourages employee ownership, self-reliance, responsibility, and self-esteem is known as work-related quality of life (WRQoL). According to the report, companies that give their workers a higher quality of life at work are more profitable and have a better chance of keeping their key staff. This study aims to examine how the six WRQoL scale domains and their relationships affect industrial workers. A pilot study was conducted with 10 female participants at an industry located in Ahilyanagar. A sociodemographic based questionnaire and Work-related Quality of life questionnaire were used for the same. Among the six domains of WRQoL scale, stress at work (SAW) was associated with lower quality of life with Mean 4 ± 1.7. Whereas, GWB, CAW, WCS reported average quality of life. HWI and JCS has showed higher quality of life. Statistically significant positive correlations were found between General Well-Being (GWB) and Control at Work (CAW), GWB and Working Conditions (WCS), HWI and WCS, CAW and WCS. The findings reveal that while workers reported high satisfaction in their jobs and a good home-work balance, significant concerns remain, particularly in the domain of stress at work.

Keywords: WRQoL- Work related quality of life, GWB- General Well-being, CAW- Control at work, SAW-Stress at work, WCS-Working Conditions, HWI- Home Work Interference, and JCS- Job Career Satisfaction.

INTRODUCTION

According to research unit of press information bureau, Government of India, India has witnessed significant employment growth over the years. The employment has increased by nearly 36%, adding around 170 million jobs during 2016-17 and 2022-23. The latest Economic Survey of India highlights significant improvements in employment and skill development. The survey provides data that aligns with the findings of the report that employment is on the rise in India [1].

Human resources are a vital component for business productivity. Employees are currently an organization's most important competitive advantage. However, a number of issues have arisen in the workplace for the employees as a result of certain adjustments [1].

Workplace culture or management style that encourages employee ownership, self-reliance, responsibility, and self-esteem is known as work-related quality of life (WRQoL). Welfare measures, health services, incentive plans, job fit, job security, job design, the significance of an individual's role and position within the organization, growth and development, decision-making participation, lowering job conflicts and ambiguities, and education are all components of the multifaceted WRQoL structure [3].

According to the report, companies that give their workers a higher quality of life at work are more profitable and have a better chance of keeping their key staff. The degree to which an organization satisfies the demands of its workers is determined by the work environment, job requirements, supervisory behaviour, and support programs [4].

Work-life balance is a contributing factor to job happiness. The relationship and impact of work and family obligations with satisfaction in any or both domains as a primary consequence is referred to as work-life balance. However, depending on whether there is balance or imbalance, the results might be either favourable or bad. Results include factors linked to work, non-work, and stress, including performance, absenteeism, job satisfaction, and turnover; marital, family, and life satisfaction; and stress, burnout, and drug misuse in all three categories [5].

One of the complications of modern life is the presence of stress in the workplace. It is a common condition of the 21st century that affects people in a variety of conditions and is responsible for absenteeism among healthcare workers.

Work-related stress (WRS) is a harmful physical and/or emotional response when the needs of a job do not correspond with the employee's abilities, resources, or needs. Work-related stress occurs if the requirements of the job differ from the individual worker's resources and abilities to meet these requirements. Next to musculoskeletal disorders, WRS is the second most reported work-related health problem. On the other hand, workplace stress raises the risk of work-related injuries and lowers WRQoL. For organizations to be able to draw in and keep human resources, the WRQoL is essential [6].

According to research by Zhang and Liao (2015), Tepper (2007), and Mackey et al. (2017), abusive supervisors have a significant impact on employee behaviour. There is convergent evidence of detrimental effects on counterproductive work behaviour (CWB) and organizational citizenship behaviour (OCB).

A 23-item psychometric tool called the Work-Related Quality of Life (WRQoL) scale is used to measure employees' perceived quality of life based on six psychosocial sub-factors. General well-being (GWB), home-work interference (HWI), job and career satisfaction (JCS), control at work (CAW), working conditions (WCS) and stress at work (SAW) are the six independent psychosocial subscales that make up the Work-Related Quality of Life (WRQoL) Scale, an evidence-based measure of Quality of Working Life (QoWL).

Research spanning more than 50 years has clearly shown the possible influence of work-related elements on workers' psychological and physical health and well-being, as well as the idea that both people and organizations have a shared duty to maximize well-being. The range of factors that may significantly contribute to physical and psychological well-being must be examined in order to achieve this optimization. It is also necessary to ascertain the influence that these factors exert and, most importantly, how work-related factors can be manipulated to ensure that they are at least not harmful to individual workers and, ideally, that they contribute positively to their health and well-being.

This study aims to examine how the six WRQoL scale domains and their relationships affect industrial workers.

MATERIAL AND METHOD

After approval from institutional ethical committee, the study was commenced.

Study Design

A pilot study was conducted with 10 female participants at an industry located in Ahilyanagar.

Participants were selected randomly based on their willingness to participate in the study and informed consent was taken. The study included employees who were currently working in the industry. The employees who were acutely ill and couldn't communicate were excluded from the study.

Study Tools

The study was done using 2 questionnaires. The questionnaire was translated into Marathi, official language of state of Maharashtra, to ensure better understanding and response accuracy among the participants.

A Sociodemographic-based questionnaire that included (a) comorbidities, (b) leaves and sick leaves taken in the last 3 months (c) Marital Status, (d) Educational Level, (e) Employment History in Years

Work-related Quality of Life Questionnaire (WRQoL) Scale: It is a 23-item psychometric scale used to gauge the perceived quality of life of employees as measured through six psychosocial sub-factors. The six sub factors are Job and Career Satisfaction (JCS), General Well-Being (GWB), Home-Work Interface (HWI), Stress at Work (SAW),

Control at Work (CAW), and Working Conditions (WCS). The questionnaire comprises a 5-Likert scale from strongly disagree to strongly agree.

Statistical Analysis

The SPSS software, version 18.0, was used to gather and analyze the data. The mean and SD were used to analyze the demographic data. Additionally, mean and SD were used to analyze each domain. In contrast, Pearson correlation was used for analysis within the group [7].

RESULTS

The 10 participants in this study were exclusively female, with mean age 30.2±7.2 years. Based on educational level, 60% were literate. Among all, 60% of participants have been working between 0-5 years. All other Sociodemographic characteristics of participants are provided in table 1.

Table 1: demographic characteristics of industrial workers

VARIABLES	CATEGORIES	N (%)
age(years)	<20	1(10)
	20-30	3(30)
	30-40	6(60)
marital status	Single	1(10)
	Married	9(90)
educational level	Literate	6(60)
	Illiterate	4(40)
comorbidities	Present	0
	Absent	10(100)
Leaves (past 3 months)	<2 days	0
	2-4 days	3(30)
	4-7 days	2(20)
	>7 days	5(50)
sick leaves (past 3 months)	<2 days	0
	2-4 days	2(20)
	4-7 days	2(20)
	>7 days	1(10)
employment history	0-5	6(60)
	6—10	4(40)
	11—15	0
	>15	0

Table 2: Mean and SD of Domains of Work-related Quality of life

	GWB	HWI	JCS	CAW	WCS	SAW
Mean	23.1	12	24.5	11.8	11.9	4
Std. Deviation	3.11	1.05	2.32	2.44	1.66	1.7
Minimum	15	10	20	6	9	2
Maximum	26	14	28	15	15	7
Mean ± Std.	23.1 ± 3.11	12 ± 1.05	24.5 ± 2.32	11.8 ± 2.44	11.9 ± 1.66	4 ± 1.7
Quality of life	Average	Higher	Higher	Average	Average	Lower

Among the six domains of WRQoL scale, stress at work (SAW) was associated with lower quality of life with Mean 4 ± 1.7. Whereas, GWB, CAW, WCS reported average quality of life. HWI and JCS has showed higher quality of life (table 2).

Table 3 shows the comparison within domains of quality of life. Pearson correlation analysis was conducted to assess the relationship between various domains of the Work-Related Quality of Life (WRQoL) questionnaire with Confidence Interval 95%. The following domain pairs showed statistically significant correlations:

General Well-Being and Control at Work: A highly significant positive correlation was observed between General Well-Being and Control at Work ($p = 0.002$), suggesting that individuals with higher well-being also experience a greater sense of control in their work environment.

General Well-Being and Working Conditions: A statistically significant positive correlation was found between General Well-Being and Working Conditions ($p = 0.043$), indicating that better perceived working conditions are associated with enhanced general well-being.

Home-Work Interference and Working Conditions: A significant relationship was noted between Home-Work Interference and Working Conditions ($p = 0.011$), implying that those with fewer conflicts between home and work also report better working conditions.

Control at Work and Working Conditions: A significant positive correlation was found between Control at Work and Working Conditions ($p = 0.016$), suggesting that greater control in the workplace is linked to more favourable perceptions of working conditions.

TABLE 3: RELATION BETWEEN DOMAINS OF WRQoL SCALE

Domains	p value	r value	Significance level
GWB & HWI	0.061	0.61	Not significant
GWB & JCS	0.949	0.02	Not significant
GWB & CAW	0.002	0.84	**Highly Significant**
GWB & WCS	0.043	0.65	**Significant**
GWB & SAW	0.954	0.02	Not significant
HWI & JCS	0.241	0.41	Not significant
HWI & CAW	0.165	0.48	Not significant
HWI & WCS	0.011	0.76	**Significant**
HWI & SAW	0.094	-0.56	Not significant
JCS & CAW	0.872	0.06	Not significant
JCS & WCS	0.113	0.53	Not significant
JCS & SAW	0.111	-0.54	Not significant
CAW & WCS	0.016	0.73	**Highly Significant**
CAW & SAW	0.712	-0.13	Not significant
WCS & SAW	0.131	-0.51	Not significant

GWB, general well-being; HWI, home-work interference; JCS, Job-career satisfaction; CAW, control at work; WCS, working conditions; SAW, stress at work

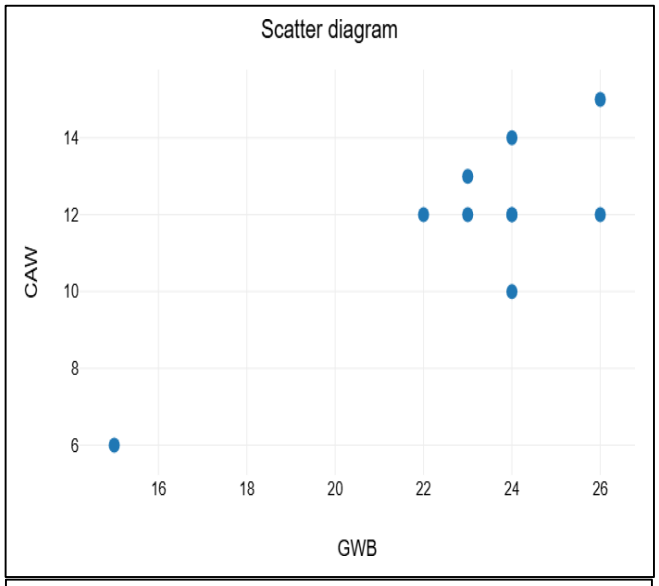
DISCUSSION

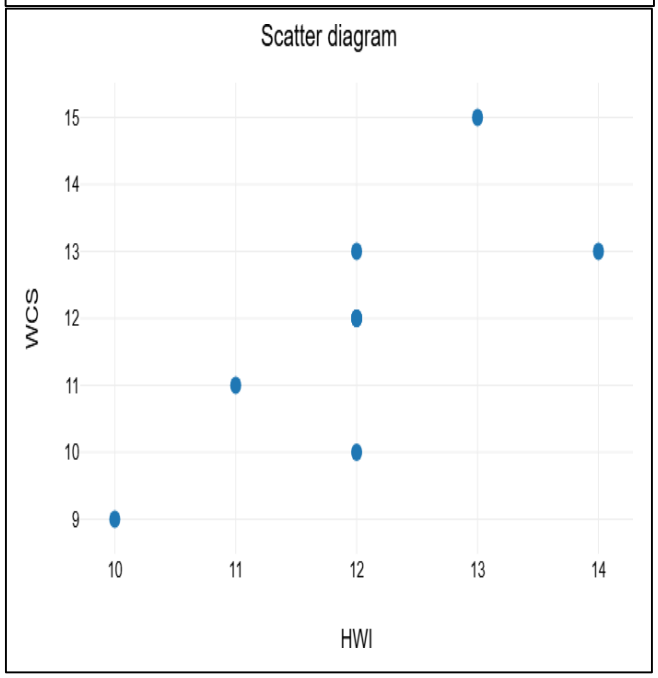
This study assessed the quality of life (QoL) among female industrial workers using the Work-Related Quality of Life (WRQoL) scale, a multidimensional tool that evaluates six key psychosocial domains. The results provide insight

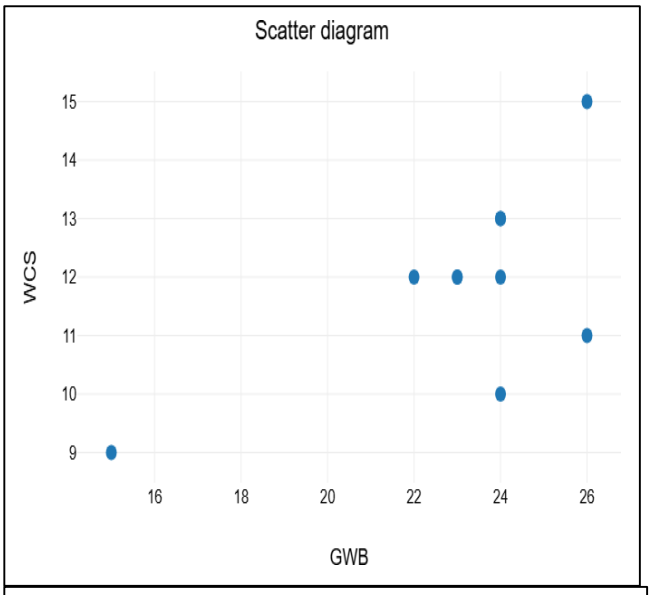
into how various workplace factors affect perceived well-being among industrial workers.

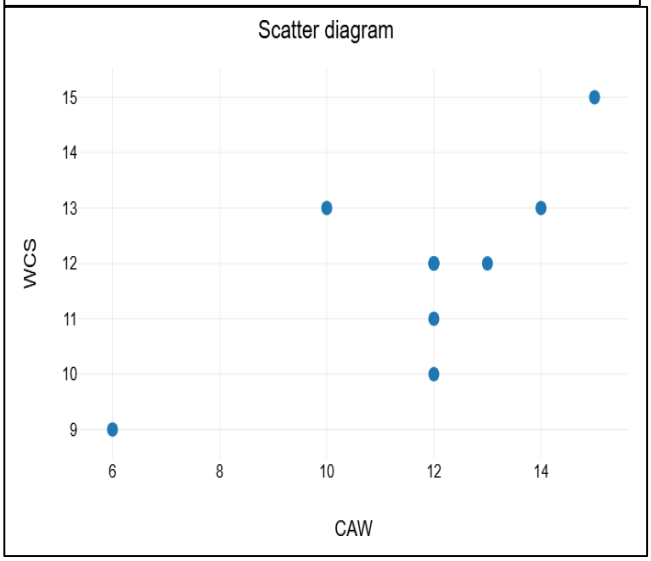
The highest quality of life scores was observed in Job and Career Satisfaction (JCS) and Home-Work Interface (HWI), indicating positive perceptions of work roles and relatively successful balancing of professional and personal responsibilities. These findings align with previous research, emphasizing that job satisfaction and work-life balance are fundamental to employee happiness and productivity (Sirgy et al., 2001; Allen et al., 2000) [8].

In stark contrast, Stress at Work (SAW) recorded the lowest mean score (4 ± 1.7), revealing that work-related stress remains a significant concern among the participants. This finding is consistent with literature suggesting that stress is a major contributor to absenteeism, reduced productivity, and health-related issues in the workplace (Hashmi et al., 2023; Sime et al., 2022) [9].









Statistically significant positive correlations were found between:

- General Well-Being (GWB) and Control at Work (CAW),
- GWB and Working Conditions (WCS),
- HWI and WCS,
- CAW and WCS.

These correlations underscore the importance of giving workers more autonomy and improving workplace conditions to enhance overall well-being. This aligns with research by Grote and Guest (2016), who emphasize the value of empowering work environments [10].

Role of the Physiotherapist

Given the study findings—especially the high levels of stress and the moderate scores in working conditions and control at work—the physiotherapist has a crucial role to play in promoting the physical and psychosocial health of industrial workers.

Workplace Ergonomics and Injury Prevention Physiotherapists can assess workstations, movement patterns, and physical job demands to recommend ergonomic

modifications that prevent musculoskeletal strain and fatigue—common contributors to stress and reduced work satisfaction [11].

Stress Management and Physical Well-being Exercise and physical activity are proven to reduce workplace stress. Physiotherapists can implement stretching programs, relaxation techniques, and workplace exercises to improve circulation, reduce tension, and manage stress, which is particularly relevant given the low SAW scores.

Health Education and Lifestyle Coaching Physiotherapists are well-positioned to provide educational workshops on posture, injury prevention, and healthy habits. This not only improves general well-being (GWB) but also contributes to a sense of control at work (CAW), supporting the correlations seen in this study [12].

Early Detection and Rehabilitation Through regular workplace screenings, physiotherapists can detect early signs of physical strain or stress-related musculoskeletal issues and provide timely intervention, thus reducing absenteeism and enhancing quality of life [13].

Supporting Work-Life Balance By providing strategies that reduce physical strain and fatigue, physiotherapists indirectly support a better home-work interface (HWI), enabling employees to be more present and active in their personal lives as well [14].

CONCLUSION

This pilot study provides valuable preliminary insights into the work-related quality of life (WRQoL) among female industrial workers. The findings reveal that while workers reported high satisfaction in their jobs and a good home-work balance, significant concerns remain, particularly in the domain of stress at work. Positive correlations between general well-being, control at work, and working conditions underscore the importance of empowering employees and creating a supportive work environment.

The study highlights the potential role of physiotherapists as key contributors in improving workers' health, managing workplace stress, preventing musculoskeletal injuries, and promoting ergonomic practices. Their involvement can play a crucial part in fostering a healthier and more productive industrial workforce.

These initial findings can inform workplace wellness strategies and serve as a basis for larger-scale studies that aim to enhance occupational health, especially for women in industrial settings.

Limitations

The study included only 10 participants, all of whom were female, limiting the generalizability of the findings to the broader industrial workforce. Participants were recruited from one industry in Ahilyanagar, which may not represent diverse work environments or regional differences. Data was collected through self-reported questionnaires, which are subject to social desirability and recall biases. The study relied solely on quantitative data, missing out on qualitative perspectives that could provide deeper understanding of workers' experiences.

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