

From Fabric to Fatigue: Physical and Mental Strain on Female Employees in Textile Showrooms

Mr Abhilash M K¹, Dr Edakkotte Shaji²

¹Research scholar, Assistant Professor, Department of commerce, Govt arts and science college Calicut

²Research Supervisor, Associate Professor, Department of commerce, Govt arts and science college Calicut, Kerala 673018

ABSTRACT

This study investigates the physical and mental strain experienced by female employees working in textile showrooms. Despite the importance of textile industry and the significant contribution of female employees only few studies are being attempted focused on physical and mental health issues, the textile show room work involves prolonged standing, lifting of load, repetitive movements, high level of strain and pressure to meet the sales target. The research paper aims to identify the work environmental factor contributing to fatigue, musculoskeletal disorder and mental health issues. Primary data for the study was collected from northern Kerala by using a structured questionnaire. On verifying the physical strain it is observed that employees are forced to do many things which were adversely effect on the health of workers. Workplace abuse and work environmental factors have a significant influence on psychological wellbeing

Keywords: Physical Strain, Psychological Strain, Work Environmental Factors, Psychological Wellbeing

1. INTRODUCTION

Textile industry is considered to be one of the largest and the most labour –intensive sectors globally with millions of workers employed in various roles .Female employees make up the significant proportion of the workforce in textile show rooms. Throughout history, women have played equally important a role as men. The global male and female populations have been constantly changing, with modest variances in male-to-female ratios among regions. According to recent estimates, men make up approximately 50.4% of the world's population, while women make up roughly 49.6%. This demographic trend reflects a number of factors, including life expectancy and birth rates, which can vary greatly by country(United Nations, 2021) . With women's participation in the global workforce averaging about 47% and men's at roughly 75%, there is a notable gender gap in this workforce. This disparity draws attention to persistent issues with gender equality in labour markets across numerous nations(ILO, 2020)

The National Family Health Survey (NFHS-5), which was carried out in India from 2019 to 2021, found that the labour force participation rate for women was 25.4% while for men it was 75.8%(NFHS-5, 2021) Gender inequality in the matter of remuneration remains an important issue in India, the gap

between the pay of male and female reduced to 28% in 2018-19 from 48% in 1993-94 (ILO, 2022). According to data from 2018, males who worked for themselves made almost three times as much as women who worked for themselves, men who were salaried made roughly 1.2 times as much, and men who worked as casual employees made roughly 1.5 times as much as women.

India's textile industry is the oldest and most powerful sector of the country's economy, contributing over 14% of manufacturing value addition, accounting for nearly one-third of our gross export revenue, and giving millions of people gainful work. Textile industry generated 21 percentage of employment. The production and distribution of textiles directly employ about 35 million people. An additional 60 million people could be considered indirectly employed, including those working in the production of raw materials derived from agriculture.

2. Literature Review

(Arif, F et al 2021) Any organizational level workplace harassment creates unpleasant working environment and also effects on their psychological health. To manage this problem of harassment, women take support of different coping strategies. The positive relationship of avoidant coping strategy with psychological distress explains that women feel hesitate to report so they try to avoid the situation that could affect their psychological health. Dr. U.Vani and Ms.P.Janani (2016) in their study they point out that among the various factors ranked about job satisfaction of workers in textile units in Thirupoor, it was found that payment of wages and salary are satisfied, proceeding to co-workers relationship are cordial, Working conditions are satisfied and Promotion opportunities are satisfied are ranked as second, third and fourth, followed by Jobs security, Company policies and rules and Training and development are satisfied respectively. (Jayasree, S, 2020) This study related to the working condition and problems related to the work place. The objective of the study to find socio economic status and working condition of female textile workers. The paper points out the fact that women in this sector suffers from lower wages, long working hours, lack of proper sanitation facilities, lack of social security and rigid working arrangements.

3. Statement Of The Problem

In 2008 women workers in textiles and jewelry show rooms in Kerala won a long battle for their right to sit in the shop while they are doing their job. They were fit for their basic rights like working hours, low wages, insecurity of job and more over their right to sit for decades. This inhuman practice of not allowing to sit create a lot of physical problems like back pain, swollen feet and varicose veins (Viji.S, 2024). Besides these issues employees face different work related issues like lack of better working environment, absence of proper rest rooms, dirty toilets, poor washrooms, overtime working, night shifts, absence of proper accommodation facilities, transportation facilities and work related stress (Sia, S., 2015). This paper has an intention to go through various psychological and physical strains faced by these female workers.

4. Objectives Of The Study

1. Assessing the physical strain on female workers in textile showrooms
2. Evaluating the psychological stressors experienced by female workers
3. To study the influence of work environmental factors on the psychological well-being of female workers

5. Methodology

Kerala having a lot of textile showrooms in each and every corners of the state, different small scale and large scale textiles showrooms are working at large cities and small cities. When a customer entering to a showroom they are welcomed by a female worker and she or any other worker help him or her for selecting their dress. Covering the entire state for the study is a herculean task because of the population, so in this work northern Kerala was covered for data collection. Convenient method of sampling was used for selecting the sample and 110 samples from collected from Malappuram, Kozhikode, Kanoor, Kasarcode and Waynad district for the study. For making statistical analysis: Categorical variables were expressed as frequency and percentage. Continuous variables were expressed as mean±SD, median interquartile range. Association between variables was analysed by Chi square test. A p value less than .05 was considered as statistically significant. Data analysis was performed using Jmovi 2.5.3

5.1.Hypothesis of the study

1. H₀: There is no relationship between physical strain and psychological strain among female employees in textile showrooms.
H₁: There is a significant positive relationship between physical strain and psychological strain among female employees in textile showrooms
2. H₀: There is no significant relationship between work environmental factors and psychological well-being among female employees in textile showrooms.
H₁: There is a significant relationship between work environmental factors and psychological well-being among female employees in textile showrooms.
3. H₀: Workplace abuse does not have a significant impact on the psychological well-being of female employees in textile showrooms.
H₁: Workplace abuse has a significant negative impact on the psychological well-being of female employees in textile showrooms.

6. Results And Discussion

6.1.Basic Characteristics of the participants

This study looked at the physical and mental stress that women who work in textile showrooms go through, as well as how abuse and the surroundings at work affect their mental health. The findings underscore the multifaceted challenges faced by these employees and highlight the need for workplace interventions to address these issues. Below table shows the basic information about participants

Table 1

Variables	Frequency (Percentage)
Age	
18-27	37 (33.6)
25-34	19 (17.3)
35-44	38 (3.4)
45-54	16 (14.5)
Total	110 (100)
Service period	
<1 year	37 (33.6)
2-4 years	37 (33.6)

5-8 years	20 (18.2)
>8 years	16 (14.5)
Total	110 (100)
Type of employment	
Permanent	78 (70.9)
Part time	7 (6.4)
Temporary	5 (22.7)
Total	110 (100)
Physical strain	
Mild	24 (21.8)
Moderate	67 (60.9)
Severe	19 (17.3)
Total	110 (100)

Table 1 shows some basic information about the collected samples, look up on the age of respondent majority fall with the age of 35-44 years and 18-24 years. It shows that most of the workers are between 18 to 50 years. In aggregate 67.2% workers having work experience of 1 to 4 years which shows that this category of job is not an attractive one majority are left their job within four years of their service, a few continue this job for more years. This indicates high labour turnover rate, job instability, challenges in retaining workers due to physical and psychological demand of the job. Most of the workers that is 70.9% are posted permanently for the job even though the period of their service is less, which shows that they are not feel safe even in permanent posts. About physical strain faced by the workers majority are experienced moderate (60.9%) while 17.3% face severe physical strain in their job, all together three fourth workers are facing either moderate or severe physical strain in their job.

Physical strain on workers

Table 2

Variables	Frequency (Percentage)
Hours of standing per day	
< 1 hour	36 (32.7)
2-4 hours	32 (29.1)
5-6 hours	8 (7.3)
>6 hours	34 (30.9)
Total	110(100)
Lifting heavy items	
Yes	47 (42.7)
No	63 (57.3)
Total	110 (100)
Repeated job(holding and stocking	
Never	20 (18.2)
Rarely	17 (15.5)

Occasionally	51 (46.4)
Frequently	16 (14.5)
Very frequently	6 (5.5)
Total	110 (100)
Ergonomic Considerations	
Yes	58 (52.7)
No	52 (47.3)
Total	110 (100)
Accident in work place	
Yes	30 (27.3)
No	80 (72.7)
Total	110 (100)
Fatigue or Exhaustion Among Workers	
Strongly agree	34 (30.9)
Agree	42 (38.2)
Neutral	18 (16.4)
Disagree	16 (14.5)
Total	110(100)

Table 2 explains about different physical strains faced by the female workers in textile showrooms. 39% of the respondents are forced to stand for more than 6 hours a day; other worker has to stand for less than 6 hours per day. Even after obtaining right to sit through a court judgment, female workers in the showrooms are still enduring long hours of standing underscores the need for ergonomic interventions to mitigate this source of strain. A good portion of workers (42.7%) reported lifting heavy items but 57.3% did not. This will course a physical strain for a remarkable number of workers which could lead to musculoskeletal issues(Esmaeili, R etl, 2023). Folding and stocking of garments is a common task to be performed by workers repetitively. The frequency of these tasks highlights their probable contribution to physical strain and fatigue. Around 52.7% of respondents says that ergonomic consideration were exist in their work place, it should be seriously taken in to account and inclusive interference has to be made to enhance workers comfort and reduce physical strain. 72.7% of workers never face work place accidents but 27.3% has face at least one accident during their service, which induce for implementing safety measures in work place. Majority of respondents are either agree or strongly agree that they feel fatigue or exhaustion due to their job, this high proportion demands for rest opportunities in the work place.

6.2. Psychological strain on workers

Table 3

Variables	Frequency (Percentage)
Psychological Strain	
Mild	8 (7.3)
Moderate	76(69.1)
Severe	26(23.6)
Total	110(100)

Overall level of job demands	
Very low	10(9.1)
Low	13(11.8)
Moderate	79(71.8)
Very high	8(7.3)
Total	110(100)
Disagreements with colleagues	
Yes	51(46.4)
No	59(53.4)
Total	110(100)
Quality of relationships with your co-workers	
Excellent	16(14.5)
Very good	12(10.9)
Good	21(19.1)
Fair	52(47.3)
Poor	9 (8.2)
Total	110(100)
Your job roles and responsibilities	
Yes	108(98.2)
No	2 (1.8)
Total	110(100)
Decision-making processes	
Very low	63(57.3)
Low	22(20)
Moderate	17(15.5)
High	7(6.4)
Very high	1(0.9)
Total	110(100)
Dealing with difficult customers	
Never	20 (18.2)
Rarely	70 (63.6)
Occasionally	12 (10.9)
Frequently	8 (7.3)
Total	110(100)

On psychological strain only 7.3% reported mild strain remaining 92.7% experienced either severe or moderate strain and majority reported moderate job demand, These results show that while most workers deal with stress levels that are manageable, a large portion of them are under too much or too little pressure at work, which may have an effect on their mental health. Another important factor for psychological strain is interpersonal relationship; here 46.4% of workers are disagreement with their co-workers while 53.6% have no conflict with their colleagues. Almost half of respondents demands for a better workplace relationship which will reduce psychological stress. An irresistible majority of workers (98.2%) have clarity in their responsibility and role of work, a small portion of workers face stress due to

their ignorance about their role and responsibility. Most participants reported that they have no role in the decision making process, which shows lack of autonomy and control for most workers that increase psychological well-being. Interaction with difficult customers may a reason for high psychological stress; here majority reported rarely dealing with such customers.

6.3.work environmental factors

Table 4

Work Environmental Factors	Never	Rarely	Occasionally	Frequently	Very frequently
Physical layout	64(58.2%)	43(39.1%)	3(2.7%)	0(0%)	0(0%)
Temperature and ventilation	72(65.5%)	29(26.4%)	1(0.9%)	7(6.4%)	1(0.9%)
Privacy and personal space in the showroom	23(20.9%)	54(49.1%)	5(4.5%)	28(25.5%)	0(0%)
Noise level	15(13.6%)	58(52.7%)	33(30%)	3(2.7%)	1(0.9%)
Opportunities for social interaction	38(34.5%)	40(36.4%)	15(13.6%)	17(15.5%)	0(0%)

Table 5

Risk level of Work Environmental Factors	Frequency	Percentage
Moderate	18	16.4
Severe	92	83.6
Total	110	100

Table 4 describe about the work environmental factors of female textile employees, 58.2% of workers never facing any issue about physical layout, majority have any problem relating to the temperature and ventilation but there is an issue related with privacy and personal space in the showroom. About noise level in the work place 52.7% rarely face and 33% occasionally face the issue and about possibility for social interaction, there is only a limited chance in showrooms.

Table 5 point out about the risk level faced by the workers about work environment. The five-item form with a five-point Likert scale was used to measure the work environment factors. Higher score indicate severe environmental risk. Total score was converted into 0 to 100 scales. Score less than 33.3% as mild, 33.3 to 66.7 as moderate and >66.7 as severe risk factors. Average score on Work Environmental Factors was 76.8 ± 12.6 and the score ranges from 40 to 100. Median score was 75 with interquartile range 70 to 85. The overall risk levels from work environmental factors were categorized into moderate and severe. The majority of participants (83.6%) experienced severe environmental risks, while 16.4% faced moderate risks. The table shows that most participants perceived significant environmental challenges in their workplace.

6.4.Psychological Well-being

Table 6

Psychological Well-being	Never	Rarely	Occasionall y	Frequentl y	Very frequently
Stressed due to workload	12(10.9%))	31(28.2%))	31(28.2%)	24(21.8%)	12(10.9%))

Valued and appreciated for my work contributions	22(20%)	25(22.7%)	14(12.7%)	33(30%)	16(14.5%)
Sense of accomplishment	19(17.3%)	17(15.5%)	24(21.8%)	18(16.4%)	32(29.1%)
Symptoms of burnout	0(0%)	10(9.1%)	51(46.4%)	28(25.5%)	21(19.1%)
Supported by my supervisors	24(21.8%)	4(3.6%)	20(18.2%)	25(22.7%)	37(33.6%)

Table 7

Psychological Well-being	Frequency	Percentage
Poor	16	14.5
Average	78	70.9
Good	16	14.5
Total	110	100

Same as in case of environmental factors total score was converted in to 0 to 100 scale. Score less than 33.3% as poor, 33.3% to 66.7% as average and above 66.7% as good level of psychological wellbeing. Average psychological wellbeing score was 50.7 ± 16.3 and the score ranges from 20-85, median score was 50 with interquartile range 40 to 60. 70.9% of workers shows average and 14.5% shows good psychological wellbeing, which indicate only a few workers face problems with psychological wellbeing. This emphasis that there is a need of improving the areas like stress management, enhanced supervision, recognition programs and a good supervisory support system.

Work place abuse

Table 8

Work Place Abuse	Frequency	Percentage
Verbal Abuse	65	59.1
Sexual Harassment	11	10
Bullying or Intimidation	18	16.4
Discrimination	14	12.7
Physical Abuse	8	7.3

Table 9

Workplace Abuse	Frequency	Percentage
Mild	82	74.5
Moderate	22	20
Severe	6	5.5
Total	110	100

In table 8 59.1% respondents face verbal abuse in their show room, followed by bullying with 16.4%, discrimination with 12.7%, sexual harassment with 10% and physical abuse with 7.3%. which shows that all the respondents are not free from any one of the abuse. The workplace abuse levels were categorized into mild, moderate and severe based on a 0 to 100 scale. In table 9 the majority of

participants (74.5%) reported mild levels of abuse, while 20% experienced moderate abuse, and 5.5% faced severe abuse. However, the existence of moderate and severe cases emphasizes the need for targeted interventions to address and prevent workplace abuse. Presents of workplace abuse demands for implementing a policy in the showrooms for creating a safe, respectful and inclusive work environment for female workers.

6.5.Hypothesis testing results

6.5.1. H₀: There is no relationship between physical strain and psychological strain among female employees in textile showrooms.

H₁: There is a significant positive relationship between physical strain and psychological strain among female employees in textile showrooms

Table: 10 Associations between Physical Strain and Psychological Strain

Physical Strain	Psychological Strain						Total	
	Mild		Moderate		severe			
	n	%	n	%	n	%	n	%
Mild	8	100	8	10.5	8	30.8	24	21.8
Moderate	0	0	50	65.8	17	65.4	67	60.9
Severe	0	0	18	23.7	1	3.8	19	17.3
Total	8	100	76	100	26	100	110	100

	χ^2	df	p
Chi-Square test	38.968	4	0.001

Chi-Square value 38.968 shows that there is a significant relationship between psychological strain and physical strain. Participants with mild physical strain all experienced mild psychological strain. Workers with moderate physical strain 65.8% experienced moderate psychological strain and those with severe physical strain majority (60.9%) face moderate psychological strain. The p-value of 0.001, which is statistically significant, means that higher levels of physical strain are linked to higher levels of psychological strain. Specifically, participants with moderate and severe physical strain were more likely to report higher levels of psychological strain. This supports the hypothesis that physical strain significantly contributes to psychological strain in female employees working in textile showrooms.

6.5.2. H₀: There is no significant relationship between work environmental factors and psychological well-being among female employees in textile showrooms.

H₁: There is a significant relationship between work environmental factors and psychological well-being among female employees in textile showrooms.

Table: 11 Associations between Work Environmental Factors and Psychological Well- Being

Work Environmental Factors	Psychological Well- Being						Total	
	Poor		Average		Good			
	n	%	n	%	n	%	n	%

Moderate	0	0	10	12.8	8	50	18	16.4
Severe	16	100	68	87.2	8	50	92	83.6
Total	16	100	78	100	16	100	110	100

	χ^2	df	p
Chi-Square test	17.073	2	0.001

The Chi-Square 17.073 shows that the variables have significant association. From table 11 we can conclude that participants with moderate working environment, majority reported good psychological wellbeing. Among those exposed to a severe working environment, 100% of participants with poor psychological well-being were in this category, while 87.2% reported average well-being, and only 50% reported good well-being. P value shows that poor environmental factors have a negative impact on psychological wellbeing.

6.5.3. H₀: Workplace abuse does not have a significant impact on the psychological well-being of female employees in textile showrooms.

H₁: Workplace abuse has a significant negative impact on the psychological well-being of female employees in textile showrooms.

Table 12: Association between Workplace abuse and Psychological Well-Being

Workplace abuse	Psychological Well-Being						Total	
	Poor		Average		Good			
	n	%	n	%	n	%	n	%
Mild	0	0	6	7.7	0	0	6	5.5
Moderate	0	0	14	17.9	8	50	22	20
Severe	16	100	58	74.4	8	50	82	74.5
Total	16	100	78	100	16	100	110	100

	χ^2	df	p
Chi-Square test	15.710	4	0.003

The chi-square test result ($\chi^2 = 15.710$, $df = 4$, $p = 0.003$) indicates a good association between workplace abuse and psychological wellbeing. 7.7% reported average psychological wellbeing among workers with mild workplace abuse. Among the moderate group 50% reported good wellbeing, 17.9% reported average wellbeing and non-reported poor wellbeing. Category of severe workplace abuses all the participants with poor psychological wellbeing moreover 74.4% reported average and 50% accounts for good wellbeing. Here the P value (0.003) being less than significant level of 0.05 shows that workplace abuse has a significant impact on psychological wellbeing, **H₀** is rejected and **H₁** is accepted. Workplace abuse has to be reduced for protecting workers mental health which improves the psychological wellbeing and overall job satisfaction of female employees in textile showrooms.

7. Conclusion

Kerala is a state having a lot of small scale and large scale textile showrooms are operating in almost all

places both in rural and urban areas. Among the sales section majority are females who are forced to do their jobs continuously for a time between 8 to 12 hours a day. This study mainly concentrates on physical and psychological strain experienced by female employees in the showrooms. It also point out how work environmental factors affect upon psychological wellbeing of employees. The result of the study concluded that these workers are facing multifaceted challenges in their work life. In order to improve the overall wellbeing of these employees authority should implement ergonomic solutions, a better workplace support system and create clear cut policies against workplace abuse. By addressing these issues in a serious manner managements can create a healthier and more productive environment in textile showrooms.

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