

A Study on Health and Physiological Aspects of Employees of Software Industry in Coimbatore City

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ABSTRACT

The growth of the software sector in the 20th century accompanied the economic transformation of the nation and altered how the world saw India. Software products and engineering services, business process management, Information Technology services, and hardware make up the four main subsectors of the Indian Information Technology industry. The rapid growth of the software industry and the increasing reliance on technology in various aspects of modern life have led to a significant rise in the number of software employees worldwide. It is also one of the reasons for higher national income of our country. In both production- and service-oriented industries today, the industry's contribution helps to significantly alleviate the problem of unemployment. In this sense, the service-oriented sector is essential to the growth of the nation. However, this intensive and sedentary work environment has also raised concerns about the health and physiological well-being of software employees. One of the most significant elements affecting employees' performance and dedication in any sector is an occupational health issue. Organising workshops on mental relaxation, maintaining physical fitness centres in the work place, and conducting eye check-up camps, providing individual and group counselling sessions would help the employees and the organisation to stay healthy and would earn higher recognition among the society.

(Keywords: software employees, work environment, health problems, physiological problems)

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I. INTRODUCTION

The growth of the software sector in the 20th century accompanied the economic transformation of the nation and altered how the world saw India. Software products and engineering services, business process management, IT services, and hardware make up the four main subsectors of the Indian IT and ITes industry. Among the many tasks that software professionals do are networking, data management, engineering, computer software, hardware, data design, and system administration (PK Nag, 2008). According to NASSCOM, the Indian software industry, revenue growth in the software sector is expected to be between 7 and 8% in 2017–2018 compared to the prior year due to concerns about the USA market. The American visa policy has become stricter under President Donald Trump, which has created uncertainty for the Indian software industry. NASSCOM anticipates the advancements. The Indian software sector anticipates exploring new job opportunities this year as a result of digital business, investments in automation, and digitalization. With a share of 55% over 2016–2017, India is the top sourcing location in the globe. The old labour-oriented market has been altered by automation and mechanisation, but on the flip side, societal awareness of occupational health, safety, and danger has decreased. The software sector is currently making a significant contribution to the global economic development of all nations. In both production- and service-oriented industries today, the industry's contribution helps to significantly alleviate the problem of unemployment. In this sense, the service-oriented sector is essential to the growth of the nation.

II. LITERATURE REVIEW

Durlov et al. (2022) their paper entitled 'An ergonomic survey of Health Status of the Handloom Weavers'. They investigated the health problems at different levels and socio-economic situation of the handloom weavers. They highlighted that socio economic situation of the handloom weavers were at poor condition and working environment provided by the management is most unpleasant condition. The study revealed that the handloom weavers felt high on low back pain then followed by head ache, waist pain and finger pain. They highlighted that weavers were affected with various stress and harmful situations. They exposed to various health problems such as respiratory problems, hearing problems, eye problems, cardio vascular problems, skin problems. They recommended for better working environment for the handloom weavers and also to arrange the free health check-up at frequent intervals of time. They suggested the management to implement few coping strategies to overcome these kinds of health problems at handloom industry.

Beck et al. (2021) examined the psychosocial factors in workplace at Germany. They indicated that psychosocial factors at working environment are more important in occupational health and safety. They examined the incidence of working environment risk estimation from 6500 German companies. The study analysed the occurrence of psychosocial factors in workplace of German Companies. Also they investigated which company influence the highest chance of occurrence in characteristics of psychosocial factors risk assessments. They identified that the smaller companies faces more difficulty in implementing the psychosocial factors risk assessment. They recommended strengthening the advisory board, proper training for all managers regarding the occupational health and safety, economic situations of the company, extend the authority level of occupational health and safety of inspector.

Hanvold (2019) analysed the risk factors of illness and accidents at occupation among young workers in Nordic. The study analysed occupational accidents and illness among the mining, automobile, and fisheries. They found that accidents among young workers are more compared with old workers in all industry. They highlighted that young workers are categories into groups and they were revealed that unskilled workers met more occupational accidents and skilled workers are facing more occupational illness. The study lime lighted that grouping workers as young based on ages alone is not suitable in future. They recommended that industry should focus more on occupational health and safety where more young workers are employed.

STATEMENT OF THE PROBLEM

One of the most significant elements affecting employees' performance and dedication in any sector is an occupational health issue. Employees labour around the clock in various shifts or overtime, especially in the software business, to finish their tasks within the allotted time. They thus experience a great deal of physical and mental difficulties. Employees that work long hours often experience health difficulties like eye problems, back discomfort, neck pain, joint pain, musculoskeletal disorders, etc. In addition, they experience psychological issues like stress, anxiety, anger, poor focus, insomnia, etc., thus it's important to identify the key workplace aspects that affect both the physical and mental health of software professionals. Employees are not concerned about their sitting position while they are at work. As a result, employees are now dealing with serious health issues. Both genders are equally represented in the majority of job profiles in the software sector. Therefore, this industry does not exhibit gender prejudice. Employees of both sexes have comparable physical and psychological issues since they operate in similar environments.

OBJECTIVES OF THE STUDY

Reviewing the existing problem statement and literature, the researcher formulated the following objectives for the present study.

- To know the socio-economic condition of software employees.
- To analyse the awareness of health problems among software employees.
- To identify the physiological problems of software employees.

i) Type of study

This study is descriptive in nature in the sense that it describes and analyses the occupational health problems of Software Employees. It influences of socio-economic factor of the employees. The study also measures Health and Physiological problems of software employees, it evaluates the following analysis.

ii) Population for the study

The population for the study comprises male and female software employees in the Coimbatore City, Tamil Nadu.

iii) Sources of data

The data for the study were collected from the primary sources. Primary data were collected from the sample respondents by using Structured Questionnaire to analyse the occupational health problems of Software Employees.

iv) Tools for analysis

Both descriptive and inferential statistics were applied to augment the researcher's inference. The statistical analysis was carried out with the help of 'Statistical Package for Social Sciences' (SPSS-26.0). The data were analysed using Percentage method

III. RESULTS AND DISCUSSION

The results of the study were discussed in this chapter, the structured questionnaire was distributed to 100 employees whom working in software industry in Coimbatore City. The SPSS software was used to analyse the collected data to frame a major conclusion.

Table 1: Demographic profile of the Respondents

S. No	Variables	Category	No. of Respondents N=110	Percentage
1	Age	Below 20	20	18.1
		20-30	30	27.2
		31-40	35	31.8
		41-50	16	14.5
		Above 50	9	8.4
2	Gender	Male	60	54.5
		Female	50	45.5
3	Marital Status	Married	45	40.9
		Unmarried	65	59.0
4	Educational Qualification	Diploma	30	18.1
		Under Graduate	60	54.5
		Post Graduate	20	27.2
5	Total Experience	0-5	20	8.1
		6-10	50	45.4
		11-15	30	27.2
		15 Above	10	9.0
6	Monthly Income	5000-20000	25	22.7
		20001-35000	40	36.3
		35001-50000	30	27.2
		50001-65000	15	13.6
		Above 65000	0	0
7	Family Size	<2	35	31.8
		2-4	65	59.0
		>4	10	9.0
8	Working hours per day	<5	45	40.9
		5-10	35	31.8
		>10	30	27.2

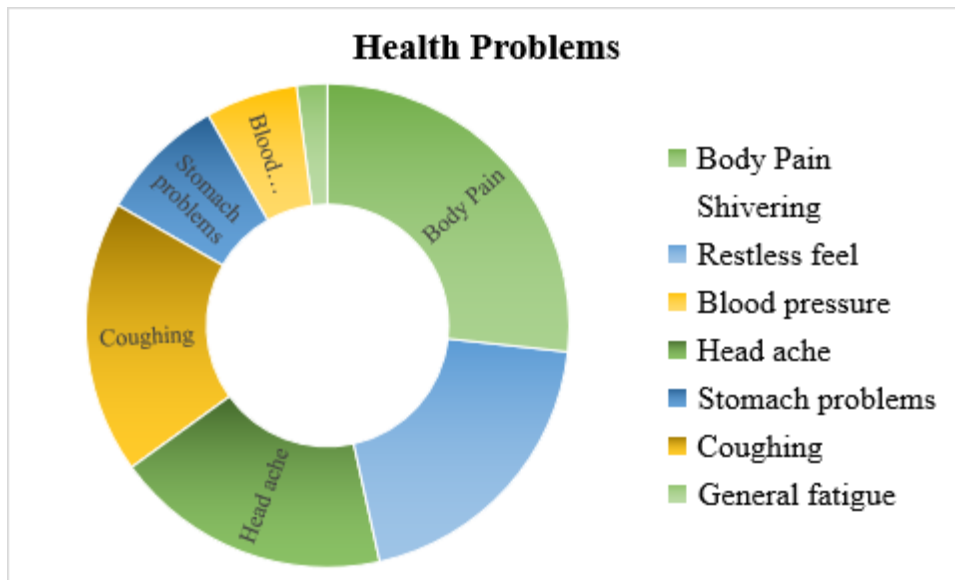
Source: Primary Data

The above Table explains that 27.2 per cent of the respondents belong to the age group of 20 to 30 years, 31.8 per cent of them belong to 31 - 40 years of age, 31.8 per cent of them belong to 41 - 50 years, 14.5 per cent of them are above 50 years and remaining 18.1 per cent of them are below 20 years of age group; 54.5 per cent of the respondents are male and remaining 45.5 per cent of them are female; 40.9 per cent of them are married, 59.0 per cent of them are unmarried, 54.5 per cent of the respondents educational qualification is UG, 27.2 per cent of them hold PG qualification and remaining 18.1 per cent of them hold diploma as their educational qualification; 27.2 per cent of the respondents had 11 to 15 years of experience, 45.4 per cent of them had 6 to 10 years' experience, 8.1 per cent of them had less than 6 years' experience, 9.0 per cent of them had 16 to 20 years' experience, 36.3 per cent of the respondents earn monthly income between 20001 to 35000, 27.2 per cent of the respondents earn monthly income between 35001 to 50000, 13.6 per cent of the respondents earn monthly income between 50001 to 65000 and remaining 22.7 per cent of the respondents earn monthly income between 5000 to 20000 ; 59.0 per cent of the respondents had 2 to 4 dependents in their family, 31.8 per cent of the respondents had less than 2 dependents in their family and remaining 9.0 per cent of the respondents had less than 4 dependents in their family; 31.8 per cent of the respondents work 5 to 10 hours per day, 27.2 per cent of the respondents work more than 10 hours per day and remaining 40.9 per cent of the respondents work more than 8 hours per day.

Table 2: Opinion on Health Problems of the Respondents

Health Problems	Very often	Often	Sometimes	Rarely	Never
Body Pain	10.4	28.8	26.3	22.7	11.9
Shivering	0	0	0	0	100
Restless feel	7.7	6.9	34	25.9	15.5
Blood pressure	2.4	3.9	3.2	3.3	87.2
Head ache	7.2	26.1	27.1	26.7	12.8
Stomach problems	3.3	0	0	91.1	5.6
Coughing	7.1	0	26	45.2	21.7
General fatigue	0.8	1.1	12.7	38.9	46.5

Figure 2.1 Opinion on Health problems of the Respondents

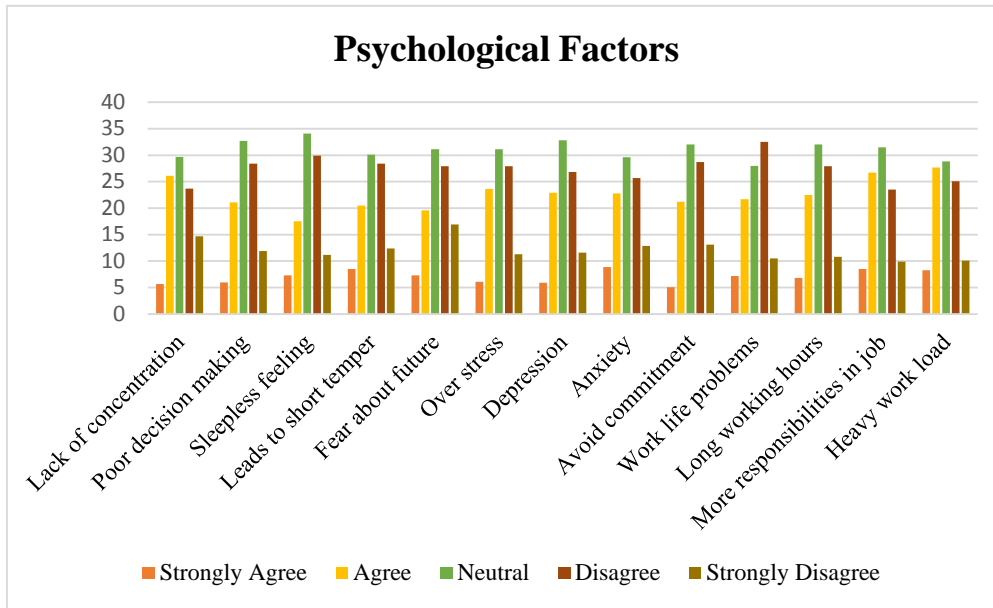


The above Table 2 and Figure 2.1 indicates that 28.8 per cent of the respondents often feel body pain as the health problems, 100 per cent of the respondents never feel shivering, 34 per cent of the respondents rarely feel restless feel, 87.2 per cent of the respondents never feel blood pressure, 27.1 per cent of the respondents sometimes head ache, 91.1 per cent of the respondents rarely feel stomach problems, 45.2 per cent of the respondents rarely feel coughing, 46.5 per cent of the respondents never feel general fatigue.

Table 3: Opinion on Psychological factors of the Respondents

Psychological factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Lack of concentration	5.7	26.1	29.7	23.7	14.7
Poor decision making	6	21.1	32.7	28.4	11.9
Sleepless feeling	7.3	17.5	34.1	29.9	11.2
Leads to short temper	8.5	20.5	30.1	28.4	12.4
Fear about future	7.3	19.6	31.1	27.9	16.9
Over stress	6.1	23.6	31.1	27.9	11.3
Depression	5.9	22.9	32.8	26.8	11.6
Anxiety	8.9	22.8	29.6	25.7	12.9
Avoid commitment	5.1	21.2	32	28.7	13.1
Work life problems	7.2	21.7	28	32.5	10.5
Long working hours	6.8	22.5	32	27.9	10.8
More responsibilities in job	8.5	26.7	31.5	23.5	9.9
Heavy work load	8.3	27.7	28.8	25.1	10.1

Figure 3.1 Opinion on Psychological Factors of the Respondents



The above Table 3 and Figure 3.1 infer that 29.7 per cent of the respondents neutrally faces lack of concentration as psychological factors, 32.7 per cent of the respondents neutrally faces poor decision making, 34.1 per cent of the respondents neutrally faces sleeping feeling, 30.1 per cent of the respondents disagree with leads to short temper, 31.1 per cent of the respondents neutral in fear about future, 31.1 per cent of the respondents neutrally faces over stress, 32.8 per cent of the respondents neutrally faces depression, 39.6 per cent of the respondents disagree with anxiety, 28.7 per cent of the respondents disagree in avoid commitment, 32.5 per cent of the respondents disagree with work life problems, 32 per cent of the respondent neutral in long working hours, 31.5 per cent of the respondents neutral in more responsibilities in job of psychological factors.

IV. SUMMARY OF FINDINGS

Based on the analysis inference were drawn and the findings emerged out of study are:

1. The analysis indicates that 31.8 per cent of the respondents belong to the age group of 31-40 and this indicates that as the age increases, the employees are less interested to continue their profession due to mental and physical stress in doing their assigned targets.
2. Though a lot of concessions are given to the female professionals it is found that a majority of 54.5 percent of them were male and only 45.5 percent of them were female.
3. From the study it is observed that 59 per cent of them were unmarried and 41 per cent of respondents are married which means that majority of the spinsters and bachelors are interested to take-up IT profession.
4. As far as educational qualification is concerned 54.5 per cent of the respondents are under graduated.
5. According to the study, 45.4 per cent of the respondents have around 6 to 10 years of experience.
6. It is clear from the study that 23 per cent of the respondents were earning Less than Rs.20,000 and a majority of the respondents were earning more than Rs.20,000 which helps the employees to have better standard of living.
7. The study revealed that 59 per cent of the respondents have at least two to four dependents in their family.
8. Further the study found that 31.8 per cent of the respondents work 5 to 10 hours per day. So, they can concentrate the remaining time to their personal life.
9. In this study nearly 29 per cent of the respondents often feel body pain as the health problems.
10. The study revealed that 45.2 per cent of the respondents rarely had coughing.
11. According to this study one fourth of the respondents experienced over pressured and felt that they are entrusted with more responsibilities.
12. The study stated 34.1 per cent of the respondents neutrally faces sleeping feeling.
13. In this study 28.7 per cent of the respondents disagree in avoid commitment.

SUGGESTIONS

The following suggestions were made in order to facilitate the software professionals to manage with their occupational health and psychological issues.

1. The one fourth of the employees of the software industry undergoes issues including body pain, headache, and few reported that they felt restless very often.
2. It is advised to have health awareness campaigns on a regular basis related problem and guide the patients to visit a doctor for basic medical examinations connected to their general well-being and eye examinations periodically.
3. Some of the employees suffered from psychological effects as a result of inadequate work-life balance. Therefore, the organisation should attempt to plan gatherings for their family members as well. It will promote good harmony among the organisation and would promote wellbeing with the family members and would feel oneness among them.
4. Good health and ambiance would help the respondents to increase their productivity which would bring them higher standards.

V. CONCLUSION

The general practise of every business is to use technology to maximise profits. One of India's industry with fast growth is information technology. Many of the young and new graduate's employment opportunities are met by this sector. There is a greater need for competent workers in the software business. In comparison with other industries, the working atmosphere for software professionals is undoubtedly well furnished and sophisticated. But a lot of issues including monthly pay, flexible scheduling, recognition, opportunities for personal development, and a safe working environment, should be taken into account for the wellbeing of software professionals who works dedicatedly. Therefore, it is the responsibility of the software industries to keep an eye on these practical difficulties in a regular interval and to provide sufficient space for break during their working hours to refresh themselves. Organising workshops on mental relaxation, maintaining physical fitness centres in the work place, and conducting eye check-up camps, providing individual and group counselling sessions would help the employees and the organisation to stay healthy and would earn higher recognition among the society. Employee wellness, particularly in the software business, affects how well an organisation does financially. As well as, it makes a significant contribution to the economy's wealth.

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