Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 3, July 2021:3556- 3565

Research Article

Impact of Workplace Factors on the Physical Health of Cashew Workers

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Abstract

Employment and working conditions have significant effects on the health of cashew workers. Majority of the cashew workers work with no social protection for seeking better health care coupled with lack of regulatory enforcement of occupational health and safety standards add to the problems. Work related health issues result have severe impact on the overall standard of living of the workers and it causes an economic loss because of reduced productivity in most industries. About 70 % of cashew workers do not have any insurance to compensate them in case of occupational diseases and injuries. People engaged in cashew processing units spend about one third of their time of a day at the workplace. Good working conditions can provide social protection and status, personal development opportunities and protection from physical and psychosocial hazards. They can also improve social relations and self esteem of employees and lead to positive health effects. But the innate nature of the jobs related to cashew processing requires the workers to take repeated activities while being seated in unhealthy postures and in unhealthy working environment. The health of workers is an essential prerequisite for household income, productivity and economic development. Therefore maintaining the health of the workers is an important function of the employers. Conditions of employment, occupation and the position in the workplace hierarchy also affect health. This study aims to find the diseases associated with various types of jobs in cashew industries.

Keywords: *Cashew workers, health problems, work environment.*

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Received: 23.06.2016, Accepted: 03.10.2016

Introduction

Cashew processing industry in India is characterized by small-scale units operated by relatively large scale processors with the export cluster largely concentrated in southern states, especially in Kollam district of Kerala. Nearly two thirds of the cashew processing business of India is based in Kerala. To be competitive in the global market many processors are have started mechanization of operations in an otherwise labour intensive processing units. Cashew processing activities are tedious tasks which have to be performed with great attention to get the desired quality of processed cashew nuts. Unhealthy work environments are prevalent in almost all industries. Cashew processing industry employees are far more likely to experience a slew of physical health problems. A healthy workplace is one where workers and employers collaborate to continually improve the health safety and wellbeing of all workers and by doing this sustain the productivity of the business. Cashew workers risk severe health problems which in turn affect their social life and economic status. The nature of the works performed in cashew processing units require workers to continuously remain in same uncomfortable postures and repeated motions which cause severe health problems in the short term and long term. Along with this unhealthy work environments also cause health issues to workers. Thus, this study aims to find the nature of impact on the health of cashew workers and the correlation between the nature of work and related diseases.

Objectives

Overall objective of this research is to study the impact of nature of work on the health of workers. It also aims to find the correlation if any between the activity performed and the diseases among workers.

Scope of the Study

The study was conducted in Kollam district of Kerala. Five processing units were selected from where the calculated respondents were selected. The study was conducted during the period of 15th March 2019 to 15th July 2019. Common health issues faced by the workers were identified from various sources to limit the number of problems to make it easy for analysis. Those identified health issues were incorporated into the questionnaire of the study and the respondents were required to select the issues mostly affecting them. Non work related health issues were not included in the questionnaire to make the research more

focused and also because the aim of the study is to find the impact of work on the health of workers.

Limitations

The results derived will be wholly based on the analysis of the data collected through questionnaire. The reliability of the information collected through the instruments are dependent on the respondent source which may be biased, mal-information and mis-guided information. Time constraints coupled with the monetary constraints are also a factor to be considered as a limitation of this study.

Research Method

The study was conducted in a private company in Kollam district of Kerala. The data for the study was collected using a questionnaire. A total of 80 workers were selected from different departments in a cashew processing units and the questionnaire was administered to the workers with a 100 per cent return rate. Of the 75 workers 25 were selected from Shelling, 25 from Peeling, 20 from Grading, 5 from Drying and 5 from Roasting departments. The researcher structured and administered the questionnaire to collect the responses expected from the workers. The data thus collected was tabulated and analyzed using SPSS (version 12.0). chi-square test was used to find whether there is any significant relationship between the physical health of cashew workers and the nature of their job.

Hypothesis

Null Hypothesis: There is no significant relationship between physical health of cashew workers and the nature of their job.

Table 1

Chi-Square Test for Relationship between Physical Health of Cashew Workers and the Nature of their Job

	Activities in the unit										**Chi-Square**	**Sig.**
	Shelling		**Peeling**		**Roasting**		**Grading**		**Drying**			
	N	**%**	**N**	**%**	**n**	**%**	**N**	**%**	**N**	**%**		
Body pain	22	88.85	13	52.33	5	100.00	15	74.07	2	40.00	730.073	0.000
Leg/hand/knee pain	20	79.55	13	52.33	5	100.00	9	45.00	1	20.00		

Back Pain	20	78.81	21	82.56	5	100.00	17	85.00	3	60.00
Joint pain	21	84.39	25	100.00	1	20.00	15	75.00	2	40.00
Neck pain	15	58.74	9	36.05	5	100.00	14	70.37	3	60.00
Head ache	12	46.84	4	17.44	2	40.00	19	95.00	4	80.00
Asthma/Bronchitis	5	19.33	6	19.89	2	40.00	2	25.93	2	40.00
Cough	12	47.21	13	53.49	1	20.00	8	40.07	1	20.00
Skin disease	14	57.99	13	53.49	3	60.00	7	35.07	3	60.00
Sneezing	15	60.59	9	36.05	4	80.00	11	55.00	2	40.00
Arthritis	9	36.06	16	63.95	5	100.00	6	30.00	1	20.00
Urinary Infection	17	67.66	25	100.00	1	20.00	15	74.07	1	20.00
Allergy	15	60.59	13	53.49	4	80.00	2	40.00	3	60.00

From the Table it can be inferred that the huge majority of workers engaged in all the activities like shelling, peeling, roasting and grading complain back pain. Workers engaged in roasting activity have more health issues than other departments. Workers engaged in roasting, shelling and peeling complain more about skin diseases. Urinary infection is more with workers engaged in shelling, peeling and grading activities. Those workers engaged in activities like shelling, peeling and roasting are facing allergic diseases. As the significance level is less than.05 it can be assumed that there is significant relationship between physical health of cashew workers and the nature of their job.

Result: Null Hypothesis is rejected.

Table 2

Pearson's Correlation between the Nature of Job and the Occupational Disease

	Roasting	Shelling	Drying	Peeling	Grading
Body pain	0.329	0.337	.159**	.496**	0.350
Leg/hand/knee pain	-.148**	.418**	-0.037	.559**	0.000
Back Pain	-.161**	.665**	-.169**	.696**	.264**

Joint pain	-0.090	.410**	-.179**	.414**	.306**
Neck pain	.126*	.455**	.202**	.463**	.512**
Head ache	.351**	.643**	.464**	.553**	.768**
Asthma/Bronchitis	.910**	.910**	.910**		.910**
Cough	.150*	0.070	0.071	.262**	.147*
Skin disease	0.067	.334**	.197**	-.675**	-.359**
Arthritis	-.235**	0.212	-0.021	.337**	-.300**
Urinary Infection	.084**	.354**	.129**	.347**	.109**
Allergy	.527**	.430**	-.041**	.313**	.316**

From the Table it can be seen that the Pearson's correlation coefficient of *extent of body pain* and roasting is 0.329. But the correlation coefficient is not significant at 5 per cent level. The result indicates that there is a small significant relationship between *extent of body pain* and *the roasting process.* Similarly, *extent of body pain* is significantly related to the shelling, peeling and grading processes. The *extent of body pain* has a negligible correlation with the drying process.

Leg/hand/knee pain has negligible negative correlation with roasting and drying processes. It has a low positive correlation with shelling process and a moderate positive correlation with peeling process. It shows no correlation between leg/hand/knee pain and the grading process. Back pain shows a negligible negative correlation with the processes of roasting and drying, while it shows a negligible positive correlation with the grading process. Shelling and peeling processes shows a moderate positive correlation with the back pain. It can be inferred that while the shelling and peeling processes because some back pain, other processes has no significant impact on the back pain of workers.

Joint pain has negligible negative correlation with the processes of roasting and drying as it shows a value of -0.90 and -.179 respectively. It has a low positive correlation with the shelling and peeling processes as its value are.410 and.414 respectively. It also shows a low positive correlation with the process of grading as indicated by a value of.306.

Neck pain has a negligible correlation with the processes of roasting and drying. It has a low positive correlation with the shelling and peeling processes as indicated by the values of.455

and.463. It has a moderate positive correlation with the process of grading processes as indicated by the value of.512.

Head ache among the workers have a low positive correlation with roasting, drying and peeling processes as pointed by the values.351,.464 and.553 respectively. Shelling and grading processes has a moderate positive correlation with headache among workers as the value are.643 and.768 respectively. Asthma/bronchitis have a very high positive correlation with all the processes except peeling. Cough has a negligible positive correlation with all the processes in the cashew nut processing units. Skin disease has a negligible positive correlation with the roasting and drying processes. It has a low positive correlation with shelling process. But it has a low negative correlation with grading process as indicated by the value -.359 and a high negative correlation with peeling process as the value is -.675. Roasting, drying and grading processes have a negligible negative correlation with arthritis, while it has a negligible positive correlation with shelling process. Peeling process has a low positive correlation with arthritis as indicated by the value of.337. While roasting, drying and grading process have a negligible relation with the occurrence of urinary infection among workers, shelling and peeling processes have a low positive relationship with the occurrence of urinary infection among workers which means when the work increases the occurrence of the disease also increase.

Instances of allergy have a moderate positive correlation with the roasting process which is indicated by a value of.527. While shelling, peeling and grading processes have a low positive correlation with allergic attacks among workers; drying process has a negligible negative correlation with allergies.

Findings

1. There is significant relationship between physical health of cashew workers and the nature of their job.
2. It can be found that the nature of work and the impact of the activity on the health of the workers are specific and are directly related to the work done by them. For example, back pain hurts more the workers who are engaged in shelling and peeling activities as these job requires the workers to stay put in unhealthy sitting postures with repeated movements.
3. Cashew workers risk to contract musculo-skeletal disorders, respiratory problems and allergic diseases in their workplace.

4. Respiratory problems are more pronounced among the workers as reported. It can be assumed that the unhealthy working environment along with the amount of pollution emitted during the processing of cashews is to be blamed for the high incidence of respiratory diseases among cashew workers.

Recommendations

A routine programme to prevent health related issues by providing intervals to change the posture, infrastructure improvement by providing equipments which avoid unhealthy sitting postures and introducing and implementing alternative techniques to process the cashews like steaming instead of drum roasting can be considered to maintain and promote or atleast delay the onset of the work related health problems of cashew workers. Cashew nuts are being shelled by hand, which damage the workers hand by the caustic liquid produced while deshelling process. Rubber gloves can help the workers engaged in shelling to protecting them from skin diseases. Work related health issues are more common in cashew processing industries. Different activities in the cashew processing units give rise to different set of health issues. Only a few coordinated efforts from both the employers and employees will mitigate the health problems of the workers in the cashew processing industry. Preventive measures must be given priority by ensuring safe, hygienic work conditions and protective gears.

Conclusion

Cashew nut processing industry is characterized by small-scale units operated by relatively large scale processors in unhealthy work environments. Cashew processing industry employees are far more likely to experience a slew of physical health problems. Cashew workers risk severe health problems which in turn affect their social life and economic status. The nature of the works performed in cashew processing units require workers to continuously remain in same uncomfortable postures and repeated motions which cause severe health problems in the short term and long term. Thus, this study aimed to find the nature of impact on the health of cashew workers and the correlation between the nature of work and related diseases. There is significant relationship between physical health of cashew workers and the nature of their job.

It was found that the nature of work and the impact of the activity on the health of the workers are directly related to the work done by them. Cashew workers risk to contract musculo-skeletal disorders, respiratory problems and allergic diseases in their workplace and the respiratory problems are much more pronounced among the workers. Health and safety inspections, providing protective gears and safe hygienic working environment along with strict adherence to government policies in this regard will go a long way to mitigate the impact of work on the health of workers.

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