

Occupational Stress: A Case Study among Chefs and Kitchen Workers

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Submitted: 15-03-2022

Revised: 25-03-2022

Accepted: 28-03-2022

ABSTRACT:

Occupational stress and its management is major concern area in recent times, OS increases rapidly due to globalization which is affecting almost all professions. In this paper worker experiences of job stress are discussed which affects their minds and bodies tremendously. An exploratory study was conducted among 30 chefs working in various types of commercial kitchens to investigate numerous occupational stress experienced by chefs, various factors associated with it and causes and effects of different kind of occupational stress. The employees of restaurant sector of Haldwani city were selected as a sample for the purpose of the study. A structures questionnaire was distributed among those employees (chefs) for the data collection. The data were basically analyzed using quantitative techniques by taking their average percentage.

KEY WORDS: Chefs, Commercial Kitchens, Occupational stress.

ABBREVIATION

MSD: Musculoskeletal Disorder

NIOS: National Institute of occupational safety and health

OHS: Occupational health and safety

OS: Occupational stress

OSHA: Occupational safe and health organization

PPE: Personal protective Equipment

I. INTRODUCTION:

A chef is basically a trained cook who knows all the aspects of cooking. Chefs are vulnerable to different types of injuries or accidents, pains and discomfort which may occur due to slips, trips or falls or through numerous accidents. The chef is one of the most famous occupations which is exposed with major health hazards and various stress factors. Studies state that chefs have a higher than the average risk of

exposure to mentally demanding tasks like depression, stress, anxiety, mental pressure and chronic pain etc. (Rayner, 2017). Most of the kitchen workers/ chefs in their daily course of work adopt awkward postures subconsciously. Prevention from the injuries and safety of the chefs are interrelated with the Ergonomic and safety factors, Psychological factors and Environmental factors. Ergonomic and safety factors like working postures, injuries occurred due to this, MSD's etc, Psychological aspects like stress, optimal work capacity, bullying at work, and work satisfaction and Environmental factors such as ventilation, temperature, humidity, illumination etc. (Cerasa,2020)

In any working environment, job stress is continually rising and considered as a challenge for the employer. High stress level leads to increased absenteeism, lower productivity and results in other problems like alcoholism, hypertension, drug usage, depression and other health problems like MSD, cardiovascular issues and other somatic problems etc. (Meneze, 2005). A study describe that work-related psychosocial factors such as job insecurity, workload etc increases the odds of reporting health problems approximately about 50%. There are different stressors that may also lead to negative effects on mental and physical illness. Research study shows that job demands increase the odds of having a physician diagnosed illness by 35 per cent, whereas the overtime raises mortality by almost 20 per cent (Goh, 2015). Study conducted in professional chefs of London state that 69 per cent of the respondents reported that work-load had an impact on their health and 78 per cent shows that they had an accident or suffered from prolonged fatigue. Half of the employee exposed they suffered from depression due to overwork. (Rayner, 2017)

Objectives of the study:

- To detect the occupational health hazards among chefs
- To identify the effects and causes of the occupational health hazard on workers' health
- To determine safety measures that the workers uses at the kitchen

Delimitation of the study:

The study area was limited only in Haldwani city of Uttarakhand.

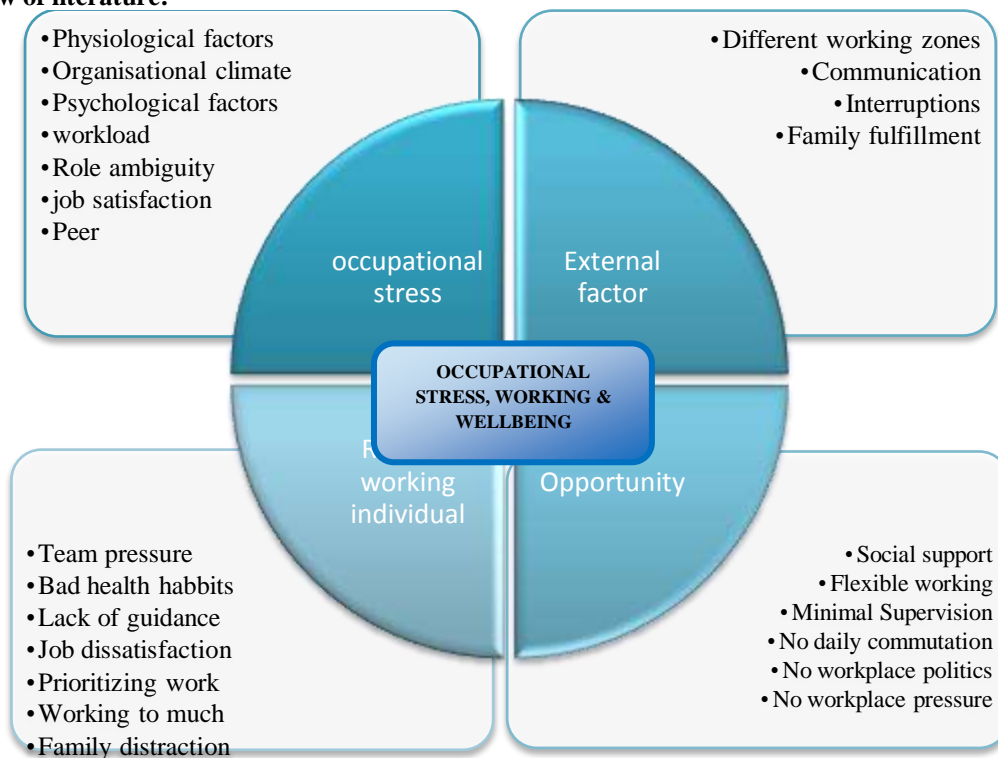
Method and material:

Data were collected using the structured Interviewing Questionnaire which was developed by the investigator and was composed of three main parts. The first part was developed to collect data related to socio-demographic characteristic of chefs and kitchen workers like age, level of education and monthly income. The second part includes questions regarding work characteristics such as working hours, position during work and years of experience. The third part includes questions about types, sources and effects of occupational hazards on the worker's health. An observational checklist is developed to assess use for different (PPE) personal protective clothes and equipments like uniform, head cover, eye goggles, gloves, protective apron and mask.

Review of literature:

Working in food processing industry can be tiring for the chefs, who regularly deal with work tempo, complex procedures and intensive interpersonal relations in daily basis. Research study had reported that chefs often work in stressful, unstable and unpleasant work environment that might have exposed chefs to the job stress (Rowley & Purcell, 2001). Working in a profession like a chef required specific skills, knowledge and passion. Chefs are frequently exposed to negative physical and psychological health hazards due to tight time constraints and high levels of perfectionism within a hot and cramped working environment that may leads to occupational stress among the worker (Murray-Gibbons & Gibbons, 2007).

Working environment stress causing hazards and factors can be divided into five categories. Chemical hazards (like dusts, liquids, fibers, fumes, mists and smoke), physical hazards (noise, vibration, ionizing and non-ionizing radiation, vibration, and extreme of temperature), biological factors (bacteria, viruses, fungi, and protozoa), ergonomic and mechanical factors (lifting, repetitive action, military capabilities, and traps), psychosocial and organizational factors (work demand and conditions, work environment and organizational) (Smedley and Sadhra 2013; Popov et al., 2016)



Physical Work Environment

Physical work environment basically describe as physical characteristics of the surrounding of employees within the work environment such as noise, lighting and ventilation. Research study shows that stressed work environment in terms of physical conditions including crowded, hot and noisy environment produced aggressive behavior in chef which leads to high levels of pressure to leave the profession. Physical environment where people work affects both job performance and job satisfaction (Thayer et al. 2010). Researches also stated that chefs often work in highly stressful condition, unstable, and unpleasant work environments (Newsham et al., 2004). Visher (2007) says in a study that the workplace environmental comfort links to psychological aspects of employee environmental likes or dislikes with the outcome measures such as improved task performance and organizational productivity.

Job Dissatisfaction

Job dissatisfaction is one of the significant factors in the development of stress and burnout (Hadi, 2018). In any industry, dissatisfaction among staff shows the disconfirmation of service expectation cause by service failure leads to consumer complaint. As chefs jobs in small towns is considered as dull, low skilled and low status

which leads to high dissatisfaction among employees (Kusluvan et al., 2010).

II. Results and Discussion

Background information of the respondents

Age: Data in Table I. reveal that majority of the respondents (40%) belonged to the age group of 31- 45 years, while less than one third of the respondents were in the age group of 18- 30 years (27%). Only 23 per cent of the respondents were above 45 years of age group.

Education: Educational profile of the respondents presented in Table I. indicates that 10 per cent of the respondents could read and write. Similarly 30 per cent of the respondents were educated up to primary level, 37 per cent of the respondents were educated up to secondary school and remaining (23%) of the respondents was educated up to high school.

Monthly Income: Table I. shows that majority of the respondents (40%) income were between 10k-20k INR, while 37 per cent of the respondents income were less than 10k INR. and remaining 23 per cent of the respondents were income were between 10k-20k INR.

Marital status: Data in Table I. reveal that more than one third of the respondents were married (77%). Only 23 per cent of the respondents were unmarried.

Table I: Distribution of the study group according to their personal variable

ITEMS	CATEGORIES	f (%)
Age (years)	18-30	27
	31-45	40
	above 45	23
Monthly income	(<10,000 INR)	37
	(10k-20k INR)	40
	(>20k INR)	23
Education	Read and write	10
	Primary education	30
	Secondary education	37
	High school	23
Marital status	Single	23
	Married	77

Work Characteristics: Data in Table II. shows that majority of the respondents (80%) work more than 8 hours per day while 20 per cent of the respondents work less than or equal to 8 hours per day.

Work Experience: As far as Work Experience is concerned, it is evident from Table II. That 27 per cent of the respondents had less than 5 year of experience, 40 per cent were had 6-10 years of

experience and 33 per cent were had more than 10 year of experience.

Work Posture: Based on the data presented in table II. Working posture was analyzed as standing, sitting and bending for longer duration, which shows that majority of the respondents (77%) work in standing posture and 10 per cent work in sitting posture, and remaining 13 per cent work in bending posture for longer duration.

Table II: Distribution of the study group according to their work characteristics

WORK CHARACTERISTICS	No.	f (%)
Working Hours / Day	≤ 8 hours	20
	>8 hours	80
Working duration (years of experience)	≤ 5	27
	6–10	40
	>10	33
Position during Work	Sitting	10
	Standing	77
	Bending for long periods	13

Occupational health hazards: It is clear from Table III that all the respondents were exposed to numerous health hazards such as Physical hazards, Chemical hazards, Mechanical hazards and Psychological hazards.

Table III: Distribution of the study group according to their exposure to occupational health hazards

Occupational Hazards	Exposed [f (%)]
Physical hazards	100
Chemical hazards	100
Mechanical hazards	100
Psychological hazards	100

Exposure to physical hazards: Based on the data presented in table IV. Exposure to physical hazards was analyzed as noise, extreme temperature, radiation, electrical shock and vibration for longer duration. Data depicted that all of the respondents exposed to extreme temperature, 43 per cent exposed to noise, 30 per cent exposed to radiation, 13 per cent exposed to electrical shock and remaining 7 per cent exposed to vibration

sometime.

Health problems associated with physical hazards: As far as health problem is concerned with physical hazards, it is evident from Table IV. that all the respondents experience heat stress, 13 per cent suffer from hearing problem, 20 per cent of the respondents having physical injury, and 37 per cent of the respondent feel headache commonly.

Table IV: Distribution of the study group according to their exposure to physical hazards

Sources of Physical Hazards		Exposed [f (%)]
Exposure to:	Noise	43
	Extreme Temperature	100
	Radiation	30
	Electrical Shock	13
	Vibrations	7
Exposed with health problems:	Hearing problems	13
	Heat stress	100
	Physical injury	20
	Headache	37

Health problems associated with chemical hazards: Health problems also arises from chemical exposures such as smoke, smog, dust etc, data in Table V. represents that 10 per cent of the respondents having nose allergy, 13 per cent suffer

from respiratory problem, 37 per cent of the respondents experience eye allergy, and 30 per cent of the respondent also feel the skin problems simultaneously.

Table V: Distribution of the study group according to their exposure to chemical hazards

Sources of Chemical Hazards		Exposed [f (%)]
Exposed with health problems:	Nose allergy	10
	Respiratory tract diseases	13
	Eye allergy	37
	Skin disorder(cracked and dry skin)	30

Exposure to mechanical hazards: Data presented in table VI. describe that exposure to mechanical hazards were assessed by heavy lifting, prolonged standing, falling/slipping, sudden movement and bending for longer duration. Data depicted that all of the respondents exposed to prolonged standing, 76 per cent involved in heavy lifting, 53 per cent suffer falling/slipping, 37 per cent exposed to

sudden movement and 37 per cent of the respondents bend for longer duration.

Health problems associated with mechanical hazards: Data in Table VI. represented that 53 per cent of the respondents observe back pain, 70 per cent feel strain in the body, and 10 per cent of the respondent complain about neck pain.

Table VI: Distribution of the study group according to their exposure to mechanical hazards

Sources of Mechanical Hazards		Exposed [f (%)]
Exposure to:	Heavy lifting	76
	Prolonged standing	100
	Falling/ slipping	53
	Sudden movement	37
	Bending for a long time	37
Exposed with health problems:	Low back pain	53
	Strains	70
	Neck pain	10

Exposure to psychological hazards: Based on the data presented in table VII. Exposure to psychological hazards was analyzed and the data depicted that 53 per cent of the respondents face verbal violence, 90 per cent employee work overtime, 77 per cent feel lack of appreciation from supervisors, 93 per cent of the worker having increased workload and 37 per cent of the employee feel lack of workers co- operation.

Health problems associated with psychological hazards: Mental health is very crucial for all. It is evident from Table VII. that 60 per cent of the respondents experience stress and tension, 30 per cent of the worker observe irritability in their behavior, 57 per cent of the respondents exposed to prolonged fatigue, and 27 per cent of the respondent notice loss of appetite.

Table VII: Distribution of the study group according to their exposure to psychological health hazards

Sources of Psychological Hazards		Exposed [f (%)]
Exposure to:	Verbal violence	53
	Length of work (over time)	90
	Lack of appreciation from supervisors	77
	Increased work load	93
	Lack of workers co- operation	37
Exposed with health problems:	Stress and tension	60
	Frequent absenteeism	3
	Job dissatisfaction	70
	Insomnia	10
	Loss of appetite	27

	Prolonged fatigue	57
	Irritability	30
	Others	13

Use of personal protective equipment: Data presented in table VIII. shows that 40 per cent of the respondents having uniform but only 17 per cent wear it on regular basis. Eighty per cent worker had head cover and using percentage was only 37. Apron was used by 67 per cent of the

employee. Thirty seven per cent of the worker having gloves, only 17 per cent were using the gloves (but not in regular basis). Due to Covid pandemic all of the respondents having respiratory mask but only 77 per cent were using it.

Table VIII: Distribution of the study group according to their using to personal protective equipment

S.no.	Personal protective equipment	Available f(%)	Used f(%)
1.	Overall uniform	40	17
2.	Head cover	80	37
3.	Eye goggles	47	10
4.	Gloves	37	17
5.	apron	87	67
6.	mask	100	77

Table IX: Distribution of the study group according to Stressful aspect of the job

S.no.	Stressful Aspect Of The Job	Agree f(%)
1.	Long working hour	83
2.	Too much work allotted	93
3.	Repetitive and monotonous work	77
4.	Don't have enough rest break	70
5.	Excessive workload	93
6.	Lack of feedback on performance	43
7.	Staff shortages	83
8.	Being undervalued	50
9.	Work is repetitive	77
10.	Insufficient management support	43
11.	Low pay	100
12.	Poor promotion prospects	77
13.	Poor communication between staff	23
14.	Poor fixtures and fittings	37
15.	Lack of appropriate training	77
16.	Lack of involvement in decision-making	43
17.	Lack of control over work	23
18.	Threats of violence at work	23
19.	Bullying at work	43
20.	Boring work	30
21.	Being short-staffed	53

Coping response of the worker: Based on the data presented in table X, Coping response of the worker was analyzed as Under/overeating, Not exercising, Drinking, Ignoring stress and Smoking, which shows that 90 per cent of the worker not

doing any kind of exercise, 87 per cent of the worker were under/overeating, 57 per cent of the worker were involved in drinking, 90 percent of the worker ignoring the stress and 43 percent of the worker were involved in smoking.

Table X: Coping response of the worker

S.no.	Coping response of the worker	Agree f(%)
1.	Not exercising	90
2.	Under/overeating	87
3.	Drinking	57
4.	Ignoring stress	90
5.	Smoking	43

III. CONCLUSION:

Most of the study group is exposed to various types of occupational health hazards at their workplaces which resulted in tremendous harmful effects on their health. Hazards can be physical, psychological, mechanical and even chemical. Workload is major concern area of this job, the employee even work overtime without taking enough break or rest. The worker do not even get enough pay according to their work and due to this they always feel dissatisfied with their work. Repetitive work create monotonous working environment that leads to mental fatigue. There was obvious shortage and unavailability of standardized personal protective equipment. If the personal protective equipment was available, then also the using percentage by the worker was very low which impact their health in various ways.

IV. RECOMMENDATIONS:

1. In the workplace there is a need of application of International Standard on Occupational Health and Safety to improve occupational health and safety performance for the workers.
2. Regular routine health check up of the workers should be done for early detection of occupational hazards to monitor the health status.
3. Emphasizing on the significance and usefulness of personal protective equipment to be used in the right way and first aid for the promotion of personal fitness of the workers by various health promotion programs.
4. Health education programs should be developed and carried out by the experts to raise the awareness of the workers regarding the negative impacts of occupational health hazards, importance of attending training programs, and the proper use of personal protective equipment

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