



Study of Occupational Health Hazards and Nutritional Status of Working Women

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Abstract: One of the major determinants of life is nutrition. The nutritional issues arise in our country because of many reasons, the prime being the consumption of low quantity and low quality of nutrients, as a result of which nutritional health disorders take place. On the other hand, it can be seen clearly how the woman workers are exposed to the various risks or threats in the occupational environment. The objective of the current study was to investigate the nutritional status and occupational health hazards of working women in Peshawar. For this reason, the quantitative type of the research was conducted, where descriptive design of the research was chosen. In the current study, data was collected from the women working in the health sector. The data was collected from 3 public sector hospitals located at Peshawar. A sample of 120 working women was taken. The data was collected from the respondents through the adapted questionnaires. Different analysis techniques were used to analysis the data. The results of the analysis showed that according to the nutritional status, most of the women were having normal weight as per the body mass index. While least of the working women were under weight. Thus, it was found that the rice and vegetable are the frequent nutrients that are included in the diet while fruits and milk products are mostly taken as weekly in the diet, however the fish is occasionally taken in the diet. The results also showed that the respondents were of the opinions that among all the hazards, the hazards to perform repetitive movement with their wrists or hands is higher. It was revealed that necessary training regarding the workplace health and safety is not taken properly. The study recommends that the working women should take a balanced diet to keep the nutritional status normal. There should be proper training to be conducted for the working women order to provide knowledge regarding the occupational health hazards.

Keywords: Occupational health hazards, Nutrition, Working women.

1. Introduction

One of the major determinants of life is nutrition. The nutritional issues arise in our country because of many reasons, the prime being the consumption of low quantity and low quality of nutrients, because of which nutritional health disorders takes place (Adema & Ladaique, 2019). The major nutritional issue which is concerned with our country is the consumption of low quality and low quantity nutrients which leads to the nutritional health disorders. An important role at home as well as society is played by woman, and they are important community members, but at times in our society they often go unrecognized and undervalued (Andersen, 2012). The status of woman is affected by the health as well as the nutritional status. The woman who works constantly round the clock, have less time to take care of themselves and thus their nutrition is affected and neglected (Annalee, 2017). Thus, such situations and circumstances lead to the nutritional deficiency disorders. While, the participation of woman in the labor force shows importance in the contribution of women to the economic productivity, thus there is a need for the occupational health as well as safety policies which covers the women workers (Brunner & Suddarths, 2017). On the other hand, it can be seen clearly how the woman workers are exposed to the various risks or threats in the

Asif et al: Study of Occupational Health Hazards and Nutritional Status of Working Women occupational environment. There are many hazards which emerge because of the various factors such as communicable diseases, psychological stresses like workload, pestilence etc. For ensuring safety, the woman workers face huge challenges in overcoming the health hazards. This can be said to be an urgent concern, especially the occupational health problem in the various sectors. For promoting the health status, there is a definite need in the development of database on the occupational health of woman in the developing countries, and it is also essential in creating awareness in the women workers in the industry (Ford & Tetrick, 2014; Hambach, 2017).

Little or no research has been done on the description of health hazards to which working women are exposed. It is need of the day to examine the nutritional status of the women who work. There are only a limited number of empirical studies on the health status of workers in traditionally female-dominated occupations (Jawaid, 2019). Thus, in order to fill the research gap, the current study investigates the opinions of the working women to determine the occupational health hazards and nutritional status of the women working in different occupation in Peshawar.

1.2 Study Objectives

The general objective of the current study is to investigate the nutritional status and occupational health hazards among working women. While below are the specific objectives of the current study.

- To analyze the nutritional status of the working women.
- To investigate the opinions of the working women regarding their workplace hazards.
- To measure the opinions of the working women regarding Workplace policies and procedures of the health and safety.
- To investigate the Occupational health and safety awareness among working women.

2. Literature Review

2.1. Nutritional status of Women

Women are the most crucial group to produce productive and effective human power so that they should remain in a healthy status (Thompson et al., 2008). Nutrition is a significant factor in keeping up the strength of people (Blaney et al., 2009). As per United Nations Child's Fund (2009), helpless sustenance in ladies of conceptive age influences odds of lady's make do just as her youngster's wellbeing. Variables at individual, family unit and local area levels, or a blend of these elements are adding to helpless nourishment and wellbeing position (Black et al., 2009), which is outrageous general wellbeing significance in Ethiopia (WHO, 2007; Federal of Ministry of Health - FMoH, 2008). As indicated by the Ethiopian Demographic and Health Survey, 27% of Ethiopian ladies are excessively slight, with the 6% being of overweight or large (EDHS, 2011).

Pakistan is influenced by the hunger. As indicated by the latest Pakistan National Nutrition Survey (PNNS) led in the 2018 [10], 14% of the WRA were of undernourished, that is the improvement from the 18% recorded thus in the past PNNS of 2011. Nonetheless, overweight and weight have ascended from 19.4% and the 9.5%, separately, in 2011 to 24.0% and 13.8%, individually, in 2019. This pattern is seen in both provincial and metropolitan networks. This expansion in the predominance of overnutrition is probably going to be connected with family food instability, where fast changes in the food frameworks have prompted the expanded utilization of exceptionally prepared nourishments and sweet drinks, which are accessible at a much lower cost than a nutritious eating routine. The PNNS 2018 uncovered that over 33% of families are food uncertain, with 18.3% falling into the serious food frailty classification. Nutrient An insufficiency influences 27.3% of WRA, with a higher pervasiveness in rustic settings contrasted and that in metropolitan networks.

2.2 Social Ecological Model

The perspectives of this research work is based on the social ecological model. As a general framework, the social ecological structure suggests that results, for instance, perform, health and nonattendance of health have several impacts comprising of specific traits and natural variables. The societal genetic model focuses on three main degrees of natural impacts that could communicate with singular attributes. The principal level rotates around the prompt essential climate overwhelmed by relational associations, the family, colleagues and work gatherings. At the subsequent level, are establishments like extended family, college and working environment? Ultimately, are the economic superpowers, social sentences and social powers discovered in the larger environment (Bronfenbrenner, 1977 in Elmarie, 2006). Factors at home and stuck between levels constantly connects with one an extra. Biological patterns, developed from conduct arts and general wellbeing, analyzes the collaborations among individuals and their natural and the socio-social conditions. The paradigm infers that singular behavior is the swayed by and the influences on the overall climate and on social cooperation's (Mc Leroy et al., 1988; in Elmarie, 2006).

2.3. Factors associated with occupational hazards might include:

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Agent: Biological chemical and Physical characteristics (e.g., biological, objects, equipment's, vapor pressure, pH level) and Process characteristics.

Ergonomic conditions: Bad ergonomic workstations and other unfriendly working conditions, for example, difficult work stances, lifting of hefty burdens, or dreary developments during the exhibition of occupation errands could have numerous antagonistic outcomes on wellbeing. Musculoskeletal problems establish the most extreme indication of an unsatisfactory workplace and are found to influence a critical part of the labor force.

Worker characteristics: this incorporates the accompanying: working time courses of action, Job exercises or work strategies portable or fixed and antagonistic working time plans. Additionally, long and unpredictable workdays (abundance of 10 hours out of every day of 48 hours out of each week) and move work effect both physical and mental soundness of the laborers. Working extended periods generally are probably going to be related with expanded danger of ischemic coronary illness and myocardial dead tissue (Tochikubo, Ikeda, Miyajima, and Ishii, 1996; Liu and Tanaka, 2002; Artazcoz et al., 2007) and hypertension (Nakanishi et al., 2001).

Environmental characteristics: concerns like working environment Indoor and outside, temperature, brutality may show in various ways like physical or mental savagery or tormenting, (sexual/racial) provocation and segregation. Albeit the degree of these wonder are probably going to be underreported, information from the ESWC showed that around 2-3% of laborers experience the ill effects of lewd behavior, and 9% are presented to tormenting and exploitation at work with a nearby related frequency of actual savagery. Some recognized antagonistic wellbeing impacts related with working environment viciousness incorporates psychopathologic, psychosomatic and conduct side effects (Cassittoet al. 2003).

Social: Work relationship also, social air of the working environment could have a few results on the specialist. Particularly environment of steady dread and tumult, whenever delayed may agitate the mental prosperity of laborers and influence their work execution and consistence.

Economic and social implications: lack of wellbeing and security measures at the work environment (sway on GDP or work market possibilities). Businesses Value of life for representatives: money related worth that workers put on their lives may add to the probability of a lethal occupation mishap. Many workplaces contain risky substances including synthetics, dust, exhaust, organic specialists that may be breathed in, assimilated through the skin, sprinkled into eyes, or are ingested erroneously.

Word related wellbeing and security strategy tends to the wellbeing, wellbeing, and government assistance of laborers to help encourage a protected workplace, the advancement of physical and mental prosperity of laborers in all occupations and the anticipation of working environment related injury and sicknesses. Strategy consistence guidelines requires, Management responsibility and task of security duties to laborer, standard wellbeing correspondence framework, risk distinguishing proof and control, episode examination, wellbeing arranging, rules, and work methodology and preparing. Work environment security compliances assumptions may incorporate the accompanying: wellbeing and security boards of trustees/specialist cooperation, injury and Illness Prevention Program (IIPP), preparing on dangers and distinguishing proof of perils, decreasing or dispensing with risks, better guideline of wellbeing and wellbeing, powerful rest and recuperation time, laborers' pay, return to work, Job rotation, adequate breaks, job analysis and workspace redesign.

3. Methodology

3.1 Research Design

In the current study, quantitative type of the research is followed. Likewise, as in the current study the data was collected from a sample taken from a population and the results were applied to the population, thus a descriptive design of the research was chosen to achieve the objectives of the research.

3.2 Study Population and Sample

The population of the current study are the women working in public sector hospitals located in Peshawar city, KPK. The three public sector hospitals, named as Hayatabad Medical Complex (HMC), Khyber Teaching Hospital (KTH), and Lady Reading Hospital Peshawar (LRH) were chosen as the sample.

The sample was chosen from the population through the convenient sampling technique. A sample of 120 individuals was chosen from the population through the convenient sampling technique. The sample distribution is presented in the below table.

Table: Sample Distribution

S. No	Hospital	No. of Respondents	%age
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1	KTH	44	36.66
2	LRH	51	42.5
3	HMC	25	20.83
	Total	120	100

3.3 Research Instrument

A research questionnaire was adapted from the previous literature. The questionnaire included three parts. First part of the questionnaire included the questions regarding the demographic information of the respondents of the research. The second part of the questionnaire included the questions to measure the opinions of the respondents regarding Occupational Health Hazards for working women. The questionnaire was developed by Brunner and Suddarths, (2017), which includes sections, including Workplace hazards, Workplace policies and procedures and Occupational health and safety awareness. While the third part of the instrument was used to measure the nutritional status of the working women.

4 Data Analysis

4.1 Demographic analysis

The below tables show the demographic information of the respondents of the study.

i. Age

Table: Age

	Frequency	Percent
Below 20	17	14.16
20 to 30	52	43.33
30 to 40	31	25.83
More than 40	20	16.66
Total	120	100

The above table thus is showing that most of the respondents belonged to the age group ranging from 20 to 30 years i.e. 43.33 percent of the total respondents. While 14.16 percent of respondents were having age less than 20 years, 25.83 percent were having age ranging from 30 to 40 and the remaining 16.6 percent were having age more than 40 years.

ii. Education

Table: Education

	Frequency	Percent
Inter	18	15
Bachelors	62	51.66
Masters	21	17.5
MS/MPhil	19	15.83
Total	120	100

The above table depicting that 15 percent of respondents were having intermediate level of education, 51.66 percent of the respondents were having bachelors' level of education. 17.5 percent were having MS/Phil degree, while there was no respondent were found having PhD degree.

iii. Marital Status

Table: Marital Status

	Frequency	Percent
Married	38	31.66
Unmarried	82	68.33
Total	120	100

Above table shows, 31 percent of respondents were married, while the remaining 68 percent of the respondents were unmarried.

iv. Nutritional status

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The nutritional status of the working women was measured through the body mass index BMI and dietary assessment. The below table shows the results of the analysis.

v. Body Mass Index

The BMI of the working women was analyzed through asking to choose among the below options:

- a. Under weight
- b. Normal
- c. Overweight

Table: BMI

	Frequency	Percent
Under weight	38	31.66
Normal	43	35.83
Overweight	39	32.5
Total	120	100

The above table shows that most of the respondents i.e., 35.83 percent of the total respondents were normal, 32 percent were overweight while the least respondents i.e. 31.6 were underweight.

vi. Dietary Assessment

The respondents were asked about their dietary assessment by asking the intake of different diets. The percentage diet intake of the respondents is presented in the below table.

S.no	Food item	Daily	Weekly	Monthly	Occasionally	Never
1	Rice	82%	12%	0	6%	0
2	Pulses	33%	58%	21%	8%	0
3	Vegetables	82%	16%	0	2%	0
4	Fruits	21%	51%	17%	31%	0
5	Milk and milk products	25%	61%	23%	11%	0
6	Fish	0	23%	34%	63%	0
7	Meat and Meat product	0	53%	44%	23%	0

As shown in the above table, most of the respondents i.e., 82 percent said that they take rice daily in their diet. 58 percent of the respondents said that pulses are included in their diet on weekly basis, 82 percent of the respondents said that vegetables are included in their diet on daily basis, 51 percent of the respondents said that fruits are included in their diet on weekly basis. 61 percent of the respondents said that milk and milk products are included in their diet on weekly basis. 63 percent of the respondents said that fish is included in their diet occasionally, while 53 percent of the respondents said that meat and meat products is included in their diet weekly.

vii. Occupational Health Hazards

In this study, descriptive analysis was used to examine the opinions of the respondents regarding the occupational health hazards. Mean and standard deviation was used to examine the opinions of the respondents.

Research Question: What are the opinions of the working women regarding their workplace hazards?

The respondents were asked regarding the hazards they face at their workplace. The questionnaire included different items to measure their opinions. The respondents were asked they how often they perform the below mentioned activity, while the respondents were given the below options to choose their opinions through the respective numbers;

- a. Very Frequently (1)
- b. Frequently (2)
- c. Occasionally (3)
- d. Rarely (4)
- e. Very Rarely (5)

The mean value and value of standard deviation for their opinions are presented in the below table;

The above table shows the responses of the respondents regarding the different workplace hazards that are faced by them. According to the above table, the respondents were of the opinions that among all the hazards, the hazards to perform repetitive movement with their wrists or hands is higher, as the mean value was measured as 1.4 i.e. nearer

S.no	In your job, how often do you ...?	Mean	SD
1	Manually uplift, take or push the items that are heavier than 20 kg	2.1	0.51
2	Do the repetitive actions with your the hands or the wrists.	1.4	0.42
3	Perform the work tasks, or the use work of methods, that you are thus not familiar with	3.0	0.61
4	Interact with the hazardous substances like as chemicals or flammable liquids and gases	3.2	0.62
5	Work in the bent, the twisted or the awkward work posture	4.0	0.42
6	Work in the noise levels which are so high-level that you have to raise your voice while talking to the people or less than the meter away	3.3	0.52
7	Experience of bullied or either harassed at the work	3.1	0.63

to the response very frequently at value of 0.42 standard deviation. Likewise, the responded were of the opinions that working in a bend, twisted or awkward position happens rarely as the value of the mean was 4.0 at 0.42 value of standard deviation. While all the other hazards were mentioned to happen as occasionally.

Research Question: What are the opinions of the working women regarding Workplace policies and procedures of the health and safety?

The respondents were asked regarding the workplace policies and the procedures of the safety and health. The below options were given to choose among.

- a. Strongly Agree (1)
- b. Agree (2)
- c. Not sure (3)
- d. Disagree (4)
- e. Strongly Disagree (5)

S.no		Mean	SD
1	Everyone gets necessary health and the safety training while starting the job, changing the jobs or when new techniques.	4.9	0.62
2	There exists regular communication between the employees and the management regarding the safety issues.	4.3	0.56
3	Workplace health and the safety thus considered to be the at least important as the production and the quality.	0.31	0.43
4	There exists active and the effective health and the safety committee and/or the worker health and the safety.	0.39	0.62
5	Incidents and the accidents are examined as quickly in the order for improving the workplace health and safety	0.41	0.43

The above table is showing the response regarding the workplace policies and the procedures of the safety and health. As shown through the mean and value of standard deviation, the respondents shown strongly disagreement that everyone receives necessary training regarding the workplace health and safety. Similarly, the respondents were disagreeing that they are regular communication between the employees and the management regarding the health and safety practices. Likewise, the mean value of the other items shows that the respondents were not sure about the response.

Research Question: What are the Occupational health and safety awareness among working women?

The respondents were also asked regarding awareness among the working women regarding the occupational health and safety. The below options were given to the respondents.

- a. Strongly Agree (1)
- b. Agree (2)
- c. Not sure (3)

- d. Disagree (4)
- e. Strongly Disagree (5)

S.no		Mean	SD
1	I am clear regarding the rights and the responsibilities with respect to workplace health and the safety	2.3	0.44
2	I am clear regarding my employers' responsibilities and right in the relation to the workplace health and the safety	2.8	0.53
3	I know that how to perform the job in safe manner	2.1	0.62
4	I know what are necessary precautions which that I should use while doing job	4.1	0.55

The responses shows that the respondents were agree that they know how to perform their job in safe manner as the mean value of the item is 2.1 at 0.62 value of standard deviation. Similarly, the responses were disagreeing that they know necessary precautions while performing a job as shown by the value of the mean as 4.1 as 0.55 value of standard deviation. Likewise, the responses for the other two items also shows the agreement.

5. Discussion

The current study revealed that some of the nutrients are frequently used as the diet by the working women like rice and vegetable while the nutrients like fish, fruits and vegetables are used in less quantity. While the study also revealed that there is a lack of communication between the employees and management regarding the occupational health hazards. Similarly, necessary training in needed to improve the health and safety knowledge in the workplace. In like manner the study conducted by De Castro. A. B et al (2009) study on Occupational Health and Safety Issues among Nurses in the Philippines, discoveries from detailing conduct, and security concerns indicated that roughly 40% of medical caretakers had encountered in any event one injury or sickness before year, and 80% had encountered back agony. Most who had a physical issue didn't report it. Bean et al (2009) concentrate on Occupational Health and Safety Issues among Nurses in the Philippines, discoveries from detailing conduct, and wellbeing concerns indicated that roughly 40% of attendants had encountered in any event one injury or disease previously year, and 80% had encountered back agony. Most who had a physical issue didn't report it. The highest-level concerns were pressure and exhaust. Likewise work request and pressing factor of work appears to incite builds danger of word related risks and on occasion because of lack of staff, when one individual accomplishes a work to be taken care of by numerous others. Other determinants include poor incentives and motivation, poor supply of personal protection equipment and absence of routine test for hepatitis and related diseases.

5.1 Recommendations

Based on the findings, the current study has several recommendations that are given presented below.

- The study recommends that the working women should take a balanced diet to keep the nutritional status normal.
- There should be proper training to be conducted for the working women order to provide knowledge regarding the occupational health hazards.
- The facilities of the health administration should be engaged in the human capacity for the development for safety of education.
- A proper health and safety policy should be introduced in the organizations to provide the knowledge the working women regarding the health hazards.
- Awareness seminars should be conducted for the working women to introduced nutritional knowledge.

5.2 Conclusion

One of the major determinants of life is nutrition. The nutritional issues arise in our country because of many reasons, the prime being the consumption of low quantity and low quality of nutrients, as a result of which nutritional health disorders takes place. The aim of the current study was to investigate the nutritional status and occupational health hazards of working women in Peshawar. For this reason, the quantitative type of the research was conducted, where descriptive design of the research was chosen. The results of the analysis showed that according to the nutritional status, most of the women were having normal weight as per the body mass index. While least of the working women were under weight. Thus, it was found that the rice and vegetable are the frequent nutrients that are included in the diet while fruits and milk products are mostly taken as weekly in the diet, however the fish is occasionally taken in the diet. The results also showed that the respondents were of the opinions that among all the hazards, the hazards to perform repetitive movement with their wrists or hands is higher. It was revealed that necessary training regarding the workplace health and safety is not taken properly, while the respondents were agreed that they know how to perform their job in safe manner, however, Similarly, the responses

Asif et, al: Study of Occupational Health Hazards and Nutritional Status of Working Women were disagreeing that they know necessary precautions while performing a job. The study recommends that the working women should take a balanced diet to keep the nutritional status normal. There should be proper training to be conducted for the working women order to provide knowledge regarding the occupational health hazards.

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