



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 takes 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 Mardan. The study was descriptive and qualitative in nature. A sample of 120 data was collected from the women working in the health sector. This data consist of 3 public sector hospitals located at Peshawar. 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 are 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.

1. Background of the study

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. A nutritional health can be maintained in a state of equilibrium by the proper

intake of nutrient intake and the requirement of the body. The state of malnutrition takes place when the requirement is more than the intake[1]. There are many disadvantages of malnutrition which includes the metabolic abnormalities, reduced tissue and organ function, physiological changes and lastly the major loss of body mass. 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 [2].

The health of a woman is her overall wellbeing which is determined not only by her reproduction and biological factors, but it is also affected by nutrition, stress, workload, etc. The health of family is reflected in the health of the woman. 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[3]. Thus, such situations and circumstances lead to the nutritional deficiency disorders. The nutritional deficiency disorders affect the health of an individual which directly affects the work performance, immunity status of the individual. To lead a healthy beautiful life, nutritional knowledge is an important aspect. For good nutrition intake, the nutrition education is very important as it educates the individual and thus it also influences the practices and attitude towards good nutrition. 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[4].

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. 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 [5]. Thus, the current study aims in the occupational health hazards amongst the working women. Also, it focuses on the nutritional status of the working women considering diverse occupation in Mardan

1.2. Objectives of the study

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

Because of their critical role in generating highly effective human capital, women must maintain a healthy lifestyle (Thompson et al., 2008). Maintaining one's health and vitality begins with a well-balanced diet [6]. According to the United Nations Child's Fund (2009), a woman's ability to make ends meet and the health of her child are both influenced by a woman's inability to feed herself. All three levels of a family, as well as the local community at large—or a combination of these levels—contribute to Ethiopia's shockingly low nutrition and well-being levels [7]. (WHO, 2007; Federal of Ministry of Health - FMOH, 2008). Overweight or obese women make up only six percent of Ethiopian women, according to the Ethiopian Demographic and Health Survey [8].

Overweight or heaviness (weight list $> 25 \text{ kg/m}^2$) was also widespread among nursing mothers, as revealed by data from different Ethiopian areas [9]. According to the Federal Ministry of Health (FMOH), 17 percent of women were pale and 6 percent of women were exhibiting vitamin A insufficiency [10]. Several epidemiological studies have indicated that people's well-being may be damaged by a lack of nutrients [11]. Ethiopia has observed an upsurge in the incidence of chronic health conditions include obesity, diabetes, and cardiovascular disease throughout the previous two decades [12].

Pakistan is influenced by the triple weight of hunger. As indicated by the latest Pakistan National Nutrition Survey (PNNS) led in the 2018 [13], 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 A insufficiency influences 27.3% of WRA, with a higher pervasiveness in rustic settings contrasted and that in metropolitan networks.

2.2 Concept of Occupational health hazard

In this section, a critical review of the issues connected to occupational health hazards are explored through reasonable, hypothetically and exactly in accordance with the particular investigation goals to recognize the information holes in the current examination considers. Word related wellbeing establishes a zone of vivacious talk

across disciplines, yet Complementarities in the methodological or exact discoveries have not yet been united. The determinants of work related wellbeing are multifaceted there are incredible requirements for additional cooperation among scientists of various orders on issues identified with OSH.

Adjustment to security guidelines involves consistence and compliance dependent on solid impacts which may be different and changed [14]. This investigation investigates the accessible clinical, mental, sociological and financial writings on the determinants and ramifications of OSH for singular specialists, economies and social orders. Additionally, gives a valuable manual for different scientists in exploring issues, identified with wellbeing and security by utilizing an integrative examination. Moreover, it fills in as a valuable hotspot for the intrigued peruser on data on the issue of OSH, in both scholarly diaries and official reports appointed by significant public bodies, (for example, the WHO, the ILO and the EU). It similarly investigates the reaction procedures and outcomes on the wellbeing faculty and a portion of the hypothetical/exact structures that are utilized by scientists to examine issues of wellbeing and security and to advise public approach.

From the beginning of time work environment dangers and work related medication have been molded by the powers that shape work itself, social advancement, changing methods of creation, moving monetary forces, and segment changes in the labor force. These progressions are not exceptional to right now; it has consistently been in presence. Hippocrates stressed the connection between climate (air and water) and wellbeing. The effect of work on wellbeing could be followed to the Edwin Smith Surgical Papyrus, composed roughly 1700 BC. The most punctual work related doctors served military powers, and Galen was doctor to Roman combatants. Finger and wrist monitors worn by women address early close to home defensive hardware.

Medical care faculty are presented to synthetic, physical, mental and natural specialists or patients' body liquids and supplies utilized for understanding consideration as an aspect of their responsibilities particularly the doctors, attendants, work related advisors, drug specialist, just as assistant laborers and research center staff in clinical offices. The ramifications of these are the requirement for all medical care laborers to be prepared on fundamental contamination control whether or not they convey direct consideration to patients [15]. The work environment conditions have substances with positive and negative impacts, where most grown-ups spend a considerable part of their time. Likewise, ideal work environment temperature and mugginess are important to give warm solace in chilly climate. In like way satisfactory ventilation and air development improves efficiency and diminishes danger of airborne cross contamination. Significant in workspace is the ergonomics/actual course of action of work zone and hardware (particularly, space, lighting, tidiness,) which permit individuals to work with solace and security.

2.3 Social Ecological Model.

The perspectives of this dissertation work are based on the social ecological model. As a general framework, the social ecological structure suggests that results, for instance, performance, 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 super powers, social sentences and social powers discovered in the larger environment [16]? 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 influences the overall climate and social cooperation's [17]. In medical care setting the organization proprietors have the command to give the fundamental security preparing and hardware to guarantee prosperity of specialist and gainful administrations that are liberated from peril. The medical services laborers have the obligation to agree with wellbeing norms and appropriately handle hardware's to ensure it doesn't hurt them and related others. Certain examinations have recommended that exceptional mental uniform are somewhat more continuous among wellbeing specialist of senior units not at all like the experts or assistant laborers, and from outstanding tasks at hand [18]. Different investigations similarly indicated that experts are more presented to unreasonable actual consideration remaining burdens they are continually occupied with. Maslow hypothesis of need are of the assessment that an individual is persuaded in life by five general requirements that contribute significantly to life attempts, it have different sides; for development of fundamental ability and change then again, neglected necessities may prompt insufficiency of life change. Three generally normal of these requirements applied here; the physiologic fundamental need are vital for endurance particularly food, oxygen, cover.

3. Research Methodology

3.1 Research Design

The present study used a descriptive research strategy since the data was obtained from a sample drawn from a population and the findings were extrapolated to the public.

3.2 Study Population

The population of the current study is the women working in public sector hospitals located in Mardan city, KPK. The three public sector hospitals, named as Mardan Medical Complex (MMC), District Headquarters Hospital (DHQ), and Combined Military Hospital Mardan (CMH) will be chosen as the sample.

3.3 Sample and Sampling technique

The population from which the sample was drawn was conveniently sampled. Non-probabilistic sampling methods like the convenient sampling approach are used when all members of the population fulfil the selection criteria. As a result, 120 people were randomly selected from the population using the method of most convenience.

3.4 Research Instrument

In order to examine the occupational health hazards and to investigate the nutritional status of the working women, a research questionnaire was adapted from the previous literature. The questionnaire included the questions to measure the opinions of the respondents regarding Occupational Health Hazards for working women. The questionnaire was developed by [19], which includes sections, including Workplace hazards, Workplace policies and procedures and Occupational health and safety awareness. While the other part of the instrument was used to measure the nutritional status of the working women.

4. Data Analysis

The data was analyzed through different statistical tools and techniques. Different analysis techniques like demographic analysis, frequency distribution and descriptive analysis i.e., mean and standard deviation were used in the current study. The analysis was conducted through SPSS.

4.1 Nutritional status

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.

Body Mass Index

5. 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.

4.2 Dietary Assessment

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

S.no	In your job, how often do you ...?	Mean	SD
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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.

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

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

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 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.

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 showed 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.

S.no		Mean	SD
1	I am clear regarding the rights and the responsibilities with respect to	2.3	0.44

workplace health and the safety				
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 show the agreement.

5 Discussion and conclusion

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 [20] 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 eat al (2009) [21]concentrate on Occupational Health and Safety Issues among Nurses in thePhilippines, 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 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 are 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 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.

6 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.

References

1. Ali, S. M., & Lindström, M. (2008). Psychosocial work conditions, unemployment and health locus of control: A population-based study. *Scandinavian journal of public health*, 36(4), 429-435.
2. Allen, S. G. (1981). An Empirical Model of Work Attendance. *The Review of Economics and Statistics*, 63(1), 77-87.
3. Bockerman, P. & Laukkanen, E. (2010). What makes you work while you are sick? Evidence from a survey of workers, *The European Journal of Public Health*, 20(1), 43-46.
4. Böckerman, P., & Ilmakunnas, P. (2008). Interaction of working conditions, job satisfaction, and sickness absences: evidence from a representative sample of employees. *Social science & medicine*, 67(4), 520-528.

5. Chatterji, M., & Tilley, C. J. (2002). Sickness, absenteeism, presenteeism, and sickpay. *Oxford Economic Papers*, 54(4), 669-687.
6. Cole, E. A. (2009), *Personnel and human resource management* (5th ed.). London: Biddles Limited.
7. Dionne, G., & Dostie, B. (2007). New evidence on the determinants of absenteeism using linked employer-employee data. *ILR Review*, 61(1), 108-120.
8. Edema W, Ladaique, M. (2009). How expensive is the Welfare State? Gross and Net Indicators in the OECD Social Expenditure Database. *Social, Employment and Migration Working Papers*.92-97.
9. Fasunloro, A., & Owotade, F. J. (2004). Occupational hazards among clinical dental staff. *J Contemp Dent Pract*, 5(2), 134-152.
10. Fenn, P. & Ashby, S. (2004). Workplace Risk, Establishment Size and Union Density, *British Journal of Industrial Relations*, 43(3), 461-480.
11. Hintermann, B., Alberini, A., & Markandya, A. (2010). Estimating the value of safety with labour market data: Are the results trustworthy?. *Applied Economics*, 42(9), 1085-1100.
12. Houtman, I., Karin J., & Leonor, C. (2007). *Raising awareness of stress at work in developing countries: A modern hazard in a traditional working environment: Advice to employers and worker representatives*. Protecting Workers' Health; Series no. 6. Geneva, Switzerland: World Health Organization.
13. HSE (Health and Safety Executive) (2004), *Review of the occupational health and safety of Britain's ethnic minorities*, Research Report 221, Suffolk: HSE Books.
14. Kramers, P.G.N. (2003). The ECHI project: Health Indicators for the European Community, *European Journal of Public Health*, 13(3), 101-106.
15. Krause, N., Frank, J. W., Dasinger, L. K., Sullivan, T. J., & Sinclair, S. J. (2001). Determinants of duration of disability and return-to-work after work-related injury and illness: Challenges for future research. *American journal of industrial medicine*, 40(4), 464-484.
16. Kreis, J. & Bodeker, W. (2004), *Indicators for work -related health monitoring in Europe* NW: Bremerhaven.
17. Thaler, R.H. and Sunstein, C.R. (2008). *Nudge: Improving Decisions about Health, Wealth and Happiness*, London: Penguin Books.
18. Thomsen, C., McClain, J., Rosenman, K., & Davis, L. (2007). Indicators for occupational health surveillance. *MMWR Recomm Rep*, 56(RR-1), 1-7.

19. Tochikubo, O., Ikeda, A., Miyajima, E. and Ishii, M. (1996). Effects of Insufficient Sleep on Blood Pressure Monitored by a New Multibio medical Recorder, *Hypertension*, 27, 1318-1324.
20. Tolera, T. B. (2016). Occupational Hazards In Construction Industry: Case Studies From Housing And Construction Workers At Addis Ababa, Ethiopia. *International Journal of Research-Granthaalayah*, 4(9), 84-96.
21. Tüchsen, F, Christensen, K.B., and Lund, T. (2008), Shift work and sickness absence. *Occupational Medicine*, 58(4), 302-304.