



Original Research

Evaluation of Employees' Occupational Safety Knowledge and Precaution Measures in the Mosul Dairy Factory

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Abstract:

Material and Methods: Descriptive study design was applied in the present study. Period of data collection first January 2024 extended from First February 2024. Setting of the study dairy Factory in Mosul City Iraq. Random sample consist of (75) students Male(66) and Female (9). tool was used data collection consisting of Five parts: part one: This part included (7) items which focus on the workers' demographic characteristics such as (age, sex, marital status, residence, level of educational, work setting and experience) Part two: To assess the environmental work it content (8) items. Part three: To assess the occupational safety it consists of (10) items. Parts four: To identify the level of hazards it content (10) items. Parts Five: To assess the performance the workers in work setting consist of (10) items.

Results: The finding of this study that the majority of study participants were males and constituted of (88%), and most of them aged (over 40 years).

Conclusion: These researchers found that low knowledge of information about occupational hazard and safety measurement in dairy factory

Keywords: Evaluation, Employees', Occupational Safety, Knowledge, Precaution Measures.

Introduction:

Despite major advances in occupational health and safety (OHS), which have led to measures that aim to prevent injuries and illness in the working environment, challenges persist in many organizations. So, Occupational Health and Safety Management Systems are becoming more widespread in organizations. Consequently, their

effectiveness has become a core topic for researchers. Risks endanger the workforce, equipment, the working environment, and impact the competitiveness and economic performance of both industries and communities. show that occupational accidents and diseases are a major concern and must be properly managed (1). Every industry presents

various kinds of safety hazards to its employees. The spectrum of possible occupational safety risks ranges from severe and immediate physical dangers to milder hazards. The more immediate cases can be fires, explosions, chemical hazards or other such dangers that present an immediate threat to an employee's life. Milder hazards include challenges in ergonomics, workloads, mental capacity and general well-being of employees. The latter kinds of risks often take place in an office environment. However, whatever business you are in, there is always the possibility of an accident happening to someone (2). Historically, safety was always referred to the machinery as it served to keep the production line operating. It was never an issue of analysis to find whether the working procedures and work environment are creating any risks for the workers or not and workers were rarely considered (3). Industrial countries initially attempted to address the issue through the introduction of health and safety regulations. But catastrophic accidents such as Bhopal (India), Chernobyl (Ukraine), and Piper Alpha (UK) resulted in a view of OHS that was more focused on technical and human factors. Organization is only successful when it can keep workplace free from physical as well as mental hazards (4). Occupational health is a multidisciplinary field of healthcare concerned with enabling an individual to undertake their occupation, in the way that causes least harm to their health. It contrasts, for example, with the promotion of health and safety at work, which is concerned with preventing harm from any incidental hazards, arising in workplace (5). The importance of the research stems from the importance of the topic of occupational health and safety itself for business organizations and the workforce in it, where the importance of health, safety and occupational health emerges in preserving economic and human wealth from loss by revealing the risks and the reasons leading to them, and taking preventive measures and precautions to prevent their occurrence (6). If a business does not comply with health and safety rules and regulations, or cannot identify potential risks in

the workplace, it can lead to injury, property damage, fines, penalties and even death. What's more, while investigations take place the business will suffer immense damage, not only to its sales and production, but ultimately its reputation as well (7). The aim of the study to Evaluation of Employees' Occupational Safety Knowledge and Precaution Measures in the Mosul Dairy Factory

Materials and Methods:

Design of the study:

Descriptive study design was applied in the present study.

Period of the study and data collection:

Period of data collection first January 2024 extended from First February 2024.

Setting of the study:

Dairy Factory in Mosul City Iraq .

Sample and sampling of the study:

Random sample consist of (75) students Male(66) and Female (9)

Tool of the study:

Questionnaire –tool was used data collection consisting of Five parts: part one: This part included (7) items which focus on the workers' demographic characteristics such as (age, sex, marital status, residence, level of educational, work setting and experience) Part two: To assess the environmental work it content (8)items. Part three: To assess the occupational safety it consist of (10) items. Parts four: To identify the level of hazards it content(10)items. Parts Five: To assess the performance the workers in work setting consist of (10) items.

Data analysis:

Data were analyzed through the application of the descriptive and Inferential statistical data analysis. (Frequency, Percentage, Mean standard deviation).

Results:

Variables	No.	Percentage(%)
(A) Gender		
Male	66	88%
Female	9	12%
Total	75	100%
(B) Age		
Below -30 years	2	2.66%
31-35 years	9	12%
36- 40 years	16	21.33%
41- or more years	48	64%
Mean +SD=(38.3+6.9)		
(C) Level of educational		
No read and write	1	1.33%
Elementary	12	16%
Secondary	42	56%
Colleges or institutions	20	26.66%
Total	75	100%
(D) Residence		
Urban	71	94.66%
rural	4	5.34%
Total	75	100%
(E) Work of sitting		
Technician employee	51	68%
Administrative employee	24	32%
Service employee	0	0
Total	113	100%
(F) experiences		
Below 5 years	0	0
6-10 years	23	30.66%
11-15 years	30	40%
More than 16 years	22	29.34%

Table(2): demonstrated the assess of environmental work

Item	Yes(%)	No(%)	Mean	SD
1-Is there a high temperature in the workplace	33(44)	42(56)	1.25	0.985
2-Is there noise and disturbance in the workplace	51(68)	24(32)	1.45	0.654
3-Are there warning signs and safety rules in the workplace	38(50.66)	37(49.34)	1.63	0.432
4-Is it necessary to use protective tools in the workplace	60(80)	15(20)	1.73	0.787
5-Are there appropriate arrangements to protect production tools	58(77.33)	17(22.67)	1.66	0.453
6- Is the floor of the factory clean,sterile and safe	66(88)	9(12)	1.35	0.742
7- Are there records of workers and work injuries	50(66.66)	25(33.34)	1.46	0.634
8-Dose the factory follow the occupational safety plan in the workplace	64(85.33)	11(14.67)	1.59	0.651

Table (3):The demonstrated of level of hazards between workers

Item	Never	Often	Always	Mean	SD
1- There is regular contact between staff and management on safety issues	5(6.66)	42(56)	28(37.34)	2.67	0.467
2- Accidents are quickly investigated in the workplace	4(5.33)	48(64)	23(30.67)	2.98	0.892
3- Communicate about health and safety procedures in the workplace in a way that you understand	5(6.66)	49(65.33)	31(41.34)	2.18	0.667
4- You carry out work tasks and use work methods that you were not aware	32(42.66)	36(48)	7(9.34)	2.78	0.513
5- You work at loud noise levels so that you have to raise your voice when talking to workers	5(6.66)	41(54.66)	29(38.66)	2.69	0.850
6- Know how to perform your guest safely	1(1.34)	17(22.67)	57(76)	2.35	0.730
7- You have enough time to safely complete your work assignments	1 (1.34)	26(34.67)	48(64)	2.44	0.667
8- Feel free to express concerns and freedom to make suggestions about health and safety in the workplace in your job	10(13.34)	37(49.33)	28(37.34)	2.54	0.769
9- Workers are exposed to frequent hazards inside the factory	13(17.34)	54(72)	8(10.66)	2.33	0.575
10- There is a difference between workers in terms of their exposure to occupational hazards	7(9.33)	52(69.34)	16(21.33)	2.44	0.630

Table (4): Assess the performance the workers in workplace

Item	Very agree	Agree	Disagree	Very disagree
1-Risks are unavoidable	11(14.66)	34(45.34)	21(28)	9(12)
2- Natural accidents are a natural part of our daily work	15(20)	44(58.67)	13(17.33)	3(4)
3- Avoid delving into the dangers that are discovered	9(12)	35(46.67)	23(30.66)	8(10.66)
4- We help each other to work safely	60(80)	15(20)	0(0)	0(0)
5- We accept dangerous behavior as long as it does not result in accidents	8(10.67)	29(38.67)	28(37.33)	10(13.33)
6- We break the safety rules to finish work on time	5(6.66)	11(14.67)	25(33.33)	34(45.33)
7- We take seriously each other's opinions and suggestions	48 (64)	25(33.34)	2(2.66)	0(0)
8- We learn from our mistakes to prevent future accidents	36(48)	37(49.33)	2 (2.66)	0(0)
9- We consider occupational safety training a good thing to prevent accidents	45(60)	28(37.34)	2(2.66)	0(0)
10- We believe that a safety assessment helps to create risks	38(50.67)	32(42.67)	5(6.66)	0(0)

Discussion:

Occupational hazards are classified into (5) categories: first physical hazards, example: noise and radiation exposure, two environmental hazards related to gas exposure and environmental hazards, three biological hazards including exposure to viruses and bacteria, four ergonomic threats, contribute to job shifts and stress situations. Finally, five risks: related to work environment e.g accidents with electricity (8). International, there are 2 million deaths related work according of health organization The ILO reports that well over 250 million non-fatal injuries result in job absences (9). Workers work for half the world's population. The health of the staff is reflected in ensuring a healthy

working climate. Some reasons for most developed countries not enforcing the protection policy because lack of knowledge about occupational diseases and injuries (10). Table 1: reveals the distribution of the studied sample regarding personal characteristics among diary factory workers; it was observed that the mean age of workers was Mean± SD = (38.3±6.9) years, and 94.66% of them were from urban areas. Regarding educational level, Table 1 shows that 56% of workers had secondary education. Moreover, 68% of them worked in technician department in the factory. However, more than half (40%) of workers had experience from (11-15 Years). The present research indicates that the mean age was (38.3±6.9) years for the participant workers. Table 2: illustrates

the assess of environmental work the workers in order of their work in dairy factory. It was noticed that 44% of workers they feeling a high temperature in the workplace. More than half (68%) of them they feeling noise and disturbance in the workplace , whereas , 80% to use the protective measure it necessary to use protective tools in the workplace .Table 3: reveals the demonstrated of level of hazards between workers. It is observed that (37.34) of workers are always the regular contact between staff and management on safety issues.(65%) of workers communicate about health and safety procedures in the workplace in a way that you understand. Moreover, only (9%) of workers were exposed to You carry out work tasks and use work methods that you were not aware, the current study indicated that (52.97%) of them have hazards .Table 5: The current study found that more than half of participants had low level of knowledge , whereas only 7.5% of them had good level.

Conclusion:

These researchers found that low knowledge of information about occupational hazard and safety measurement in dairy factory.

Recommendation:

This study recommended building of training program for workers about occupational safety in dairy Factory. Increase awareness of dairy factory workers toward importance of compliance with Protective measure during work and measure regularly medical checkups for workers.

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