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and Scientific Research
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Faculty of Nursing**



**Strategies of Prevention Health Care Related to
Occupational Health Hazards Among Workers at
Cement Governmental Factories in Holly
AL-Najaf Governorate**

A Dissertation

Submitted to the Council of College of Nursing,
University of Babylon

By
Ghassan Adnan Hashim

in Partial Fulfillment of the Requirements for the Degree
of Doctorate of Philosophy in Nursing

Supervisor

Prof. Dr. Amean A. Yasir

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﴿وَقُلْ اَعْمَلُوا فَسَيَرَى اللّٰهُ عَمَلَكُمْ

وَرَسُوْلُهُ وَالْمُؤْمِنُوْنَ﴾

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Supervisor Certificate

This is to certify that the dissertation entitled: **Strategies of Prevention Health Care Related to Occupational Health Hazards Among Workers at Cement Governmental Factories in Holly AL-Najaf Governorate.** submitted by **Ghassan Adnan Hashim Al-Talkany** to the University of Babylon, College of Nursing in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Nursing. The dissertation work was carried out by the student under my supervision and guidance

Signature

Prof. Dr.

Amean A. Yasir

Date: / / 2022

Signature

Prof. Ph.D. Salma al Ibrahimi

Head of Family and Community Health Nursing

College of Nursing / University of Babylon

Date: / / 2022

Committee Certification

We, the members of the Dissertation Discussion Committee, certify that the we have reviewed the dissertation entitled **“Strategies of Prevention Health Care Related to Occupational Health Hazards Among Workers at Cement Governmental Factories in Holly AL-Najaf Governorate** carried out by **Ghassan Adnan Hashim Al-Talkany** examined the student in its contents and what is related to it on / / 2022.

We decided that the dissertation is accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Nursing with an estimation of ().

Member

Prof. Dr.

Date: / / 2022

Member

Prof. Dr.

Date: / / 2022

Member

Assist Prof. Dr.

Date: / / 2022

Member

Assist Prof. Dr.

Date: / / 2022

Chairperson

Date: / / 2022

Approved by the council of the college of Nursing

Dean of Collage of Nursing

Prof. Dr. Amean A. Yasir

Date: / / 2022

Dedication

To

Praise be to Allah Almighty first.

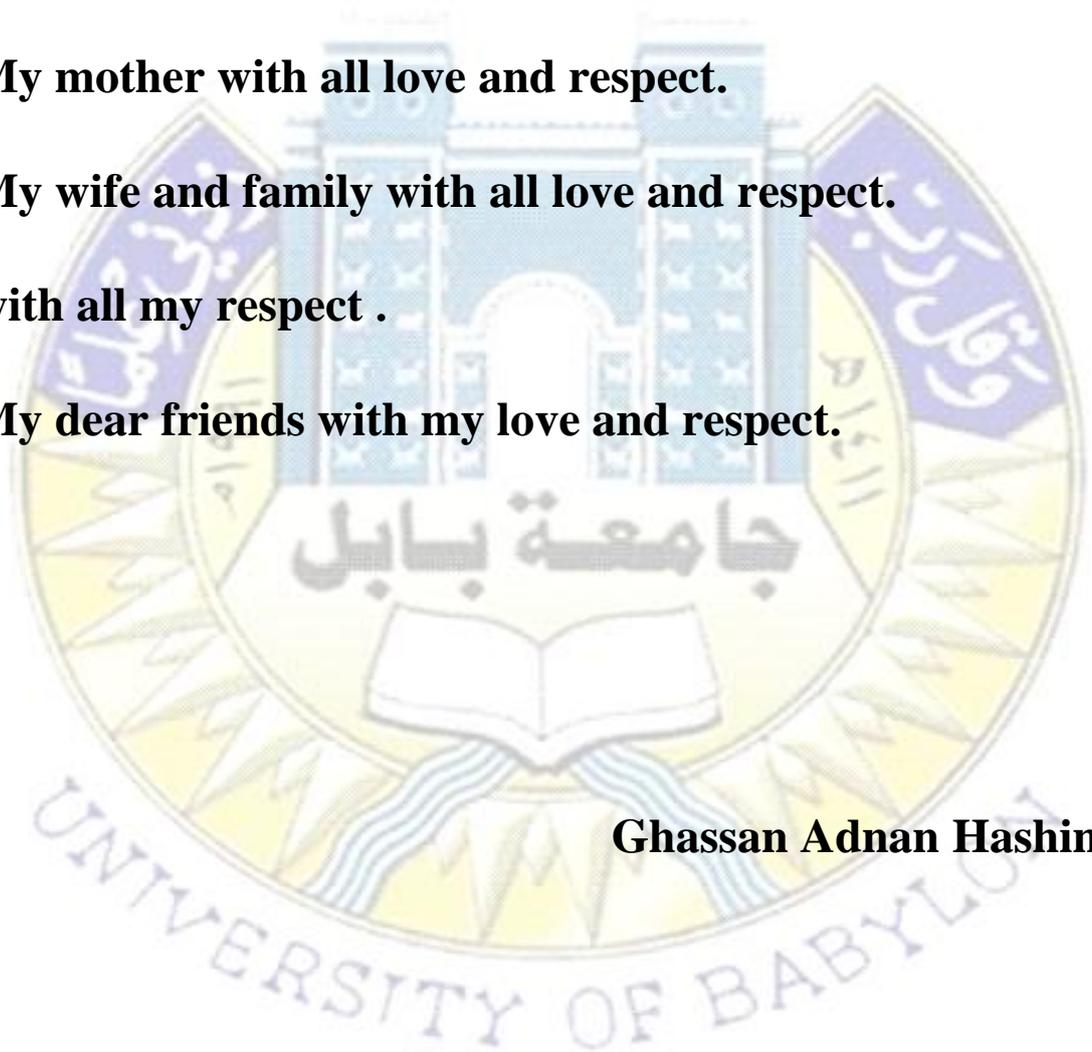
My father all love and respect.

My mother with all love and respect.

My wife and family with all love and respect.

with all my respect .

My dear friends with my love and respect.



Ghassan Adnan Hashim

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Summery

Occupational health is an important strategy not only to ensure the health of workers, but the study aims to identify the types of risks that are (physical - chemical - biological - psychological - mechanical - electrical) and other occupational risks among the study sample and evaluate strategies to prevent occupational hazards related to the health status. It shows how workers use these means and strategies to prevent those risks and how to implement them to reduce hazards.

The descriptive design cross-sectional study was conducted in three government places where cement is manufactured in the governorate of Najaf Al-Ashraf. It is the example of the Al-Ashraf Najaf cement factory - the Koufa cement factory - the section of stone crushers (crushers), which included about 200 workers from various collaborators and age groups who were selected from 1,000 workers working in those factories. The data was collected through the use of the questionnaire and data analysis by SPSS .

The study showed that workers are exposed to great hazards (physical - chemical - biological - electrical - mechanical) during the performed of their tasks inside the factory about 55.5% considered High Hazard , so it became perfect that workers who use occupational prevention strategies are less exposed to the risk of occupational risks that occur with the worker during the work environment . while The study found an important statistical relationship with workers regarding psychological risks during work and The study concluded that there is a very important relationship between physical risks and their impact on workers in the working environment

The study recommended the education of cement industry workers about the hazard that affect their health and using the protective safety measures (prevention strategies) and the application of standard guidelines

for safety and prevention hazards .and Increase health awareness programs about the risks of work and clarify the positives of adherence to and application of personal protective equipment to avoid various work risks (physical, chemical, biological, mechanical and electrical). Increase the warning signs in the various sections of the plant about the risks to avoid them and provide a suitable and safe environment for the worker.



Table of Content

Content	Page No.
Summery	I
Table of Contents	III
List of Tables	VI
List of Abbreviations	IX
List of Statistical Symbols	X
Chapter One: Introduction	1-12
1.1. Introduction	2
1.2. Importance of study	8
1.3. Problem statement	10
1.3.1. Objective of study	10
1.4. Research hypothesis	11
1.5. Definition variables	11
1.6. Hazard	12
1.7. Worker	12
Chapter Two: Review of Literature	13-78
2.1. Historical Overview.	14
2.2. Theoretical framework	17
2.3. Epidemiology of occupational health.	22
2.4. occupational health:	30
2.5. Physical hazards.	37
2.6. Chemical hazards	50
2.7. Psychological Hazards	58

2.8. Mechanical hazard:	69
2.9. Electric hazard	70
2.10. Strategies of prevention of occupational health hazard.	71
2.11. Administration.	74
2.12. Previous studies.	76
Chapter Three: Methodology	79-93
3.1. Study Design	80
3.2. Ethical and Administrative Agreement.	80
3.3. Setting of the study:	81
3.4. Study of the sample:	82
3.5. Inclusion Criteria:	82
3.6. Exclusion Criteria:	82
3.7. Instrument:	83
3.7.1 Part One Socio-Demographic Data:	83
3.7.2. Part Two:	84
3.8. Method of Data Collection:	90
3.9. Validity of the instruments	91
3.10. Pilot of study:	92
3.11. Reliability of Questionnaire:	92
3.12. Rating and scoring:	92
3.13. Statistical Analysis	93
Chapter Four: Results	94-139
Chapter Five: Discussion	140-155
Chapter Six: Conclusions and Recommendations	156-159
Conclusion	157

Recommendation	159
References	160-207
Appendices	No.
Panel of Experts A	A
Administrative Arrangements B	B
Questionnaire of occupational health hazards C	C



List of Tables

Title	Page
Table (4.1) clarify of the Workers by their Socio-Demographic characters' concluded Frequency & Percentage	95-97
Table(4. 2 .) Medical History Characteristics of Workers.	98-99
Table (4.3) Overall of the Medical History Workers at Cement Government Factory.	99-100
Table (4.4) Distribution of the Workers by their Health Care Facilities through Frequency and Percentage.	100-101
Table (4.5) Statistical Distribution of the Workers by their Health Hazards (Physical Hazard Domain) through Frequency and Percentage.	101-102
Table (4.6) Statistical Distribution of the Health Hazards domain (Physical Hazards) at Cement Government Factory.	102
Table (4.7) Statistical Distribution of the Workers by their Health Hazards (Chemical Hazard Domain) through Frequency and Percentage.	103
Table (4.8) Statistical Distribution of the Health Hazards (Chemical Hazard Domain) at Cement Government Factory.	104
Table (4.9) Statistical Distribution of the Workers by their Health Hazards (Biological Hazards Domain) through Frequency and Percentage.	105-106
Table (4.10) Statistical Distribution of the Health Hazards (Biological Hazards Domain) at Cement Government Factory.	106
Table (4.11) Statistical Distribution of the Workers by their Health Hazards (Psychological Hazards Domain) through Frequency and Percentage.	106
Table (4.12) Statistical Distribution of the Health Hazards (Psychological Hazards Domain) at Cement Government Factory.	107
Table (4.13) Statistical Distribution of the Workers by their Health Hazards (Mechanical hazard Domain) through Frequency and Percentage.	107-108
Table (4.14) Statistical Distribution of the Health Hazards (Mechanical hazards Domain) at Cement Government Factory.	108
Table (4.15) Statistical Distribution of the Workers by their Health Hazards (Electric Hazard Domain) through Frequency and Percentage.	109

Table (4.16) Statistical Distribution of the Health Hazards (Electric Hazards Domain) at Cement Government Factory.	110
Table (4.17) Statistical Distribution of Overall the Health Hazards (all Domain) at Cement Government Factory.	110
Table (4.18) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Safety Equipment) through Frequency and Percentage.	111-112
Table (4.19) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Places) through Frequency and Percentage.	113
Table (4.20) Statistical Distribution of the Strategies of Prevention (Places) at Cement Government Factory.	114
Table (4.21) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Health Requirements) through Frequency and Percentage.	114-115
Table (4.22) Statistical Distribution of the Strategies of Prevention (Health Requirements) at Cement Government Factory .	115
Table (4.23) Statistical Distribution of the Workers by Using of the Strategies of Prevention (working conditions) through Frequency and Percentage.	116
Table (4.24) Statistical Distribution of the Strategies of Prevention (Working Conditions) at Cement Government Factory .	117
Table (4.25) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Exposition) through Frequency and Percentage.	118
Table (4.26) Statistical Distribution of the Strategies of Prevention (Exposition) at Cement Government Factory.	119
Table (4.27) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Peace Factors) through Frequency and Percentage.	119-120
Table (4.28) Statistical Distribution of the Strategies of Prevention (Peace Factors) at Cement Government Factory.	121
Table (4.29) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Emergency Fund) through Frequency and Percentage.	121-122
Table (4.30) Statistical Distribution of the Strategies of Prevention (Emergency Fund) at Cement Government Factory	122
Table (4.31) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Industrial Security) through Frequency and Percentage.	123-124

Table (4.32) Statistical Distribution of the Strategies of Prevention (Industrial Security) at Cement Government Factory .	125
Table (4.33) Distribution of the Participant level of Strategies of Prevention Scale among cement factories.	125-127
Table (4.34): Relationship between the overall Health Hazards of Workers and their demographic characteristics.	128-129
Table (4.35) Association between Overall of the Health Hazards with Medical History.	129
Table (4.36) Association between Overall of the Health Hazards with Overall of the Medical History.	129
Table (4.37) Association between Overall of the Health Hazards with all Domains of the Health Care Facilities.	130
Table (4.38) Association between Overall of the Health Hazards with Overall of the Health Care Facilities.	131
Table (4.39) Association between Overall of the Health Hazards with all Domains of the Strategies of Prevention.	131-132
Table (4.40) Association between Overall of the Health Hazards with Overall of the Strategies of Prevention.	132
Table (4.41): Relationship between the overall Strategies of Prevention of Workers and their demographic characteristics.	133-135
Table (4.42): Relationship between the overall Strategies of Prevention of Workers and Medical History.	135-136
Table (4.43) Association between Overall of the Strategies of Prevention with Overall of the Medical History.	136
Table (4.44) Association between Overall of the Strategies of Prevention with all Domains of the Health Care Facilities.	137
Table (4.45) Association between Overall of the Strategies of Prevention with Overall of the Health Care Facilities.	138
Table (4.46) Association between Overall of the Strategies of Prevention with all Domains of Health Hazards.	138-139
Table (4.48) Stepwise Regression for Predicting the Effect of Strategies of Prevention of Workers on Health Hazards.	139

List of Abbreviations

Items	Meaning
°C	Celsius
CDC	Centers for Disease Control and Prevention
CHN	Community health nursing
dc	Decibel
Dr.	Doctor
ECDC	Environment concenter cases
H&S	Health and safety
HCW	Health care workplace
ILO	International Labor organization
L	Lighting
N	Noise
CtSS	Services Sociaux Santé
No.	Number
OCD	Obsessive compulsive disorder's
OHS	Occupational health safety
(OT)	Occupational Therapy
PPE	Personal protective equipment
R	Radiation
SLM	sound level meter
UPS	uninterruptible power supply
V	Vibration
WHO	World health organization
OSH	World related Safety & Health

List of Statistical Symbols

Symbols	Meaning
Freq.	(frequency)
<i>Std. Dev</i>	(Standard deviation).
χ^2	Chi-square
<i>df</i>	Degree of freedom
=	Equal
e.g.	For example
<i>F</i>	Frequency
<i>G</i>	Group
<	Less than
\bar{X}	Mean
<i>M.s</i>	mean of scores
>	More than
\geq	More than or equal
P	Page
P.P	Pages
%	Percentage
r	Person Correlation Coefficient
P.value	Probability value
<i>R.S.</i>	rating score
S	Significant
SPSS	Statistical Package for Science Service
<i>T</i>	total
USA	United States of America
V	Version
Vol.	Volume

Chapter One

Introduction

1.1. Introduction:

The International work Organization assesses that world related infections kill six fold the number of individuals every year as word related injuries Canadian examinations propose a lot higher proportion in the discourage primary of the impact perils on the specialist that openness to the climate work (Harrison, J., & Dawson, L. 2016).

Not with standing being to a great extent preventable, the human, cultural, and financial effects of these infections are tremendous and incorporate, for instance, a destitution of the laborers and with the relatives, decreased usefulness & work limit, laborers' pay advantages, and medical care uses (Abd Wahid. 2020).

Remuneration figures, for example, these generously under-represent the genuine weight of word related illnesses and are lacking as a reason for research or as an aide for public approach (Singh. S., 2021).

The quantity of world related malignant growth fatalities in Canada has expanded consistently over the long run and presently outperforms the yearly number of working environment horrendous fatalities (Zahid, F. 2016)

supposed cancer-causing agents at labor was inescapable, and late examinations assessing that more than 1500000 Canadians active in 2011 has been presented to something like one cancer-causing agent in the working environment somewhere in the range of 1961 and 2001 (Keefe,& Bornstein, S. 2020).

The another-use smoke, nickel combinations, polycyclic sweet-smelling hydrocarbons , radon, night shift work, silica (glasslike), sun based bright radiation, and welding exhaust. (Juan, C. W. 2015).

Work related contact dermatitis coming about because of work environment openness to either aggravations or allergens essentially affects work, business, personal satisfaction, and expenses (Samet, J. 2016).

In numerous purviews, is one of the most well-known work related diseases³⁰ and in several high-hazards enterprises, up to 20 to 40% of laborers has astute establish to have hand skin disease (Lushniak, B. D. 2004).

Counteraction of centers around aversion of openness, the utilization of proper individual defensive gear, and skin health management (Guimarães, A. G.2018).

The prior the analysis, the better the result; in this way, early discovery, authoritative finding, and successful administration are essential. (Behroozy, A., and Keegel, T. G. 2014).

Late efficient audits have noticed the set sum of great-specific concentrates with anticipation databases & have suggested advance assessment of existing projects. (Keefe, A. R., Demers, 2020).

The International Labor Organization (ILO) gauges that 160 million individuals experience the ill effects of business related sicknesses each year Concurrently, the effect of work related illnesses has for some time been a worry on both the public and the global level (Niu, S. 2010).

World related sicknesses not just mischief laborers' wellbeing and their own economy, yet additionally contrarily affect the efficiency and benefit of undertakings—and at last on the government assistance of whole social orders. The economy of the People's Republic of China (henceforth China) kept up with incredibly quick development of work related illness (Fishwick, D., 2015).

Its thriving economy during the previous many years has made the nation and monetary generator. Behind the accomplishment of China's economy are a great many Chinese laborers, and the word related soundness of these individuals is critical for the country (Jeebhay, M. F., and Quirce, S. 2007).

Work deficiency has turned into an issue in the assembling business during late years; this lack will turn out to be more conspicuous, as China speeds up en route to turning into a maturing society. Toward the finish of 2011, in China 185 million individuals were beyond 60 years old. It is assessed that the working-age populace will hit a limit of 998 million out of 2015, then, at that point, decay by 3.66 million yearly, dropping to 870 million of every 2050 (Schenk, L., and Hansson, S. O. 2013).

The significance of word related wellbeing for China's economy will in this manner increment the control of dangers and utilizations the security equipemaint to save the existence of specialist (Hansson, S. O. 2013).

Professionals utilized as OSH chiefs, OSH facilitators or OHS leaders in relations were systematically positioned on the sideline when choices are made with regards to the everyday activity with the association & specially around changes in the association making (Dickel, H. Bruckner .,2018).

This may be can make she hard aimed at them to straight for wardly influence the dynamic interaction & to save active with, improve before establish a decent workplace (Diepgen, T. L., and Coenraads, P. J. 2010) .

The first point of view has its beginning in quite a while calling and spotlights on portrayal of the occupational health and safety experts' assignments. These investigations are for the most part study based and

don't depict the elements in the association and how the OHS proficient explores in the association to work on the work space (Olsen, K. 2012) .

An expanding extent of Occupational related wounds on the planet are happening in non-industrial nations. The level of insurance against word related dangers shifts by country as well as by financial area and size of the endeavor. The most elevated paces of word related mishaps happen in agribusiness, ranger service, mining and development, and by and large, little ventures have a more terrible security record than huge ones (Rajabi, F., Jahangiri, M .2020).

This undertaking outgrew the worries voiced by word related wellbeing and security experts (doctors, medical caretakers, hygienists, audiologists, and toxicologists) who work in an essential medical care office, the Center the Services Sociaux Santé (CtSS) dela Montagne. The wellbeing community's region covers a thickly populated metropolitan region in Montreal, half of whose inhabitants are foreigners. There are 14,903 organizations delivering labor and products nearby (Buchanean, D., Millers, B. G., 2018).

The OHS experts partner issues in appropriating security the executives in independent ventures with those having a to a great extent outsider labor force. Notwithstanding, it is preposterous to expect to draw an immediate association between such issues and the cosmetics of the labor force on the grounds that the freely available report contains no information on ethnic, relocation or etymological foundation (Jiménez Paneque, R., and Pavés Carvajal, J. R. 2015).

During the start of the Industrial Revolution in Europe, laborers started to move towards modern urban areas, and they don't know and don't have full attention to the word related dangers of laborers and how the dangers to laborers of different sorts show up, just as their absence of

information on the impacted processing plants (Harrison and Hutchins, 2018).

As per the World Health Organization, which focused on the significance of work related wellbeing, which is viewed as a vital science pointed toward mindful and shielding laborers from the risks in the workplace that might make wounds laborers and undermine their lives at work (WPRO, 2020).

Work related wellbeing was created from mono disciplinary to multi-disciplinary and extensive methodology that arrangements with individual's Physical, mental and social health. The workplace might force positive or contrary impacts on individual's wellbeing and the usefulness is affected by physical and mental of laborers prosperity (Wasowicz, W. 2013).

Ongoing years arose a huge advancements as in the field of work related security and wellbeing and kept on concentrating on the extraordinary changes occurring in the modern, financial and innovative turns of events, specialists should evaluate work related security and offer better types of assistance to the laborer study to forestall wellbeing dangers of laborers in the business happens (Weisæth, L. 2013).

To secure laborers and decrease wounds and further develop wellbeing execution, which guarantees improvement on the wellbeing and financial level of the nation's laborers and private speculation programs. A few arrangements and conferences have been directed with the association addressing laborers putting them under the management of work related wellbeing association determined to support the wellbeing factor since it addresses the center fragment of the nation and the turn of events and strength of the modern nations (Speroni, K. G. 2013).

To upgrade the wellbeing of laborers who are viewed as a significant part comprises the functioning conditions and work on the nature of work and remain on the significant key ways of serving the specialist and serve the local area on a monetary level and pointed toward reinforcing the soundness of laborers prompts serve the nation and serve people in general as broad and hence ensure the fundamental standard. A sound laborer implies the wellbeing and the nature of the nation's economy. New compound, substance of The advancement of the cycles, instruments , and showcased for Ever, increment the expense openness to this danger (Stanhope and Lancaster, 2019).

Unfavorably hazards influencing the existences of laborers working in the field of businesses in the event of inability to go to lengths emergency to forestall them and is on a few kinds (physical - synthetic - natural - and enthusiastic or mental) and forestall, control and going to lengths emergency given by the Occupational Safety Organization of the World Health Organization and follow the method for control and afterward hazard evaluation. To assess the dangers that influence laborers in all fields of industry laborers should decide the extent of those dangers and handled by adhering to the obligations of word related wellbeing, direction and apparatuses that serve to ensure the interests of the world (Radford, J., and Staun, J. 2014).

One of the primary explanations behind expanded level word related dangers increment is increment the expenses of care and the absence of responsibility by the private areas in addressing ecological approach and thusly laborers presented to word related perils and inability to give that consideration (private industry) and the inability to give medical coverage to the class work by the public authority and with increment injury rate among laborers of this side and the other hand should organize with the modern government to attempt to lessen the dangers and increment the

extent of work related wellbeing and wellbeing sculptures (Oniovokukor, B. E., and Erhabor, G. E. 2018).

To guarantee the prosperity of more laborers give psychosocial support through instructional classes on how peril evaluation and expanded wellbeing attention to forestall wounds and to further develop specialist wellbeing and expanding patterns, abilities and information on those dangers and along these lines serve the interests usefulness and wellbeing, an objective of worldwide security for the laborers association (Cherrie et al., 2011) .

History of Occupational Health Nursing:

When OHS was reviewed historically, it was named nurses factories since it progressed slowly. It was first developed in the United Kingdom. in the United States. Betty Moulder was hired by a coal-miners group in 1888 to care for their employees and their families, which is considered the beginning of occupational health nursing. (Topcu, 2019).

During the early 1900s, employee health services increased significantly as businesses realized that providing on-site health care resulted in a more productive workforce. Workplace accidents were seen as an unavoidable element of working at the time. However, the public did not agree with this viewpoint, and a workers' compensation system evolved, which is still in use today (Altalakany, 2017).

1.2. Importance of study:

Occupational hazards are divided into five categories: first, physical hazards, such as noise and radiation exposure; second, environmental hazards, such as gas exposure; third, biological hazards, such as virus and bacteria exposure; and fourth, ergonomic threats, which contribute to job shifts and stress situations (Younis, et al, 2021).

The cement manufacturing was one of the most important problems that adversely affect the lives of people and workers due to their exposure to several risks firstly respiratory diseases and other environmental risk issues such as indicated by some studies in the United Arab Emirates (Soltanian, A., 2017).

Some researchers of the Social Work Organization in area have come up with some measures and annual costs for all occupational diseases resulting from exposure to the risks that workers are exposed to in that capital for the period from 2005 to 2007. It was estimated at the time about 834 million US dollars in Canada and was There is an average mortality associated with these risks to workers, representing about 128 million US dollars (Takaro, T. K., & Demers, P. A. 2016).

The importance of our study was emerged from the importance of health promotion with safety as global issue for organizations with workforce, which highlight the importance of health promotion and safety and professionalism in maintaining the economic ; human resources from less than by detecting risks with reasons leading to it, and to take preventive measures and precautions to prevent their occurrence. As well as the study will propose a numbers of appropriate recommendation to contributes to solving problem face by some occupational health with safety stakeholders and workers (Byass, P., Cai, W. and Costello, A., 2015).

Around 270 million individuals on the planet succumb to word related wounds, lethal and non-deadly consistently. A new International Labor Organization report appraises that around 2 million word related fatalities happen across the world every year (Bepko, J., 2019).

Word related Safety covers the peril factor in your workplace, and workers security gambles with that could really cause injury. Word related

Health, on the other hand, looks at potential prosperity concerns and flourishing Occupational wellbeing is a piece of the local area for that examination is of high significance since it concentrates on the issues and risks that specialists openness in concrete industrial facilities. The review incorporates knowing the danger that laborers are presented to in the workplace and dealing with how to lessen their and the wellbeing of laborers in the workplace (Hamidi, Y.2017).

The concrete assembling was quite possibly the main problem that antagonistically influence the existences of individuals and laborers because of their openness to a few dangers right off the bat respiratory sicknesses and other natural danger issues, for example, demonstrated by certain examinations in the United Arab Emirates (Sana et al., 2018) .

prevent of hazards related wellbeing association for effecting of resulting at the nature of many atims work exposure and apply of the personal protective for safety in community (Ssempebwa, J. 2015).

1.3. Statement of the problem :

The present study ought to conduct an " *Strategies of prevention health care related to occupational health hazards among workers at cement governmental factories in Holly AL-Najaf Governorate ."*

1.3. 1. Objective of study:

1. To find out the occupational hazards among the study sample
- 2-To assess the strategies for preventing occupational hazards related to the health status.
- 3-To find out the association between the socio-demographic characteristics of the study sample and the type of occupational hazards.

1.4. Hypothesis of research :

H0: there is no effect of Strategies of prevention health care related occupational hazards among workers at cement government factories

H1: there is effect Strategies of prevention health care related occupational hazards among workers at cement government factories

1.5. Definition of terms :

Theoretical definition

1.5.1. Strategies: Strategies followed in the professional environment to reduce the risks that workers are exposed to in the work environment and how to implement them correctly to avoid those risks.

Operational definition:

Strategies These are the standards used by the worker in the work environment aimed at reducing exposure and protecting against occupational risks to which workers are exposed to hazards .

1.5.2.Occupational health :

Occupational health is a specialty within nursing that focuses primarily on disease and injury prevention. principal of targets of occupational health nurses was practicing is of workers in the many occupational places across of the country (Sattler, 2016).

1.5.2.Operational definition:

A set of services that were provided by primary health personal to prevent illness and promote well-being of workers and maintain safety at work like health education, immunization ,periodic investigation, provide workers with protective safety measures ,etc

1.6.Hazard :

1.6.1.Theoretical definition:

A hazard is a potential adverse effect in regarding an agents or circumstances and the risk is the probably harm workers. Risk assessment involves identifying hazards and characterizing the associated risks" (Palmer & Coggon, 2012).

1.6.2. Operational definition :

Referred to-some hazards that workers may experiences as result of job performance These studied illnesses were classified into four major groups for hazards as: (physical - chemical - emotional and psychological)

1.7. Worker:

1.7.1 Theoretical definition :

A person who does a particular job to earn money, or a person who is actively involved in a particular activity, or a person whose job does not involve managing other people (Merriam-Webster, 2015).

1.7.2 Operational definition:

Workers when we're working in cement factories were enrolled in the cement study .

Chapter Two

Review of literature

Review of literature

During the study that is in your hands, through which the literature is reviewed regarding the research process and the research topic studied or the research problem related to the study of occupational health safety for workers .Through matters related to the study. Therefore, the literature is reviewed from several different modern sources related to the subject of the study, such as the use of books, the Internet, previous research, articles and reports, which in turn indicate that we have reached the desired goal of the study through which the phenomena of the current study are understood, so the literature is coordinated here in the research as follow.

2.1. Historical Overview.

During the Alma Ata Conference on Occupational Health and Safety, a set of policies for all programs related to workers were announced to work on the decisions of the World Health Organization and how to promote occupational health and safety for workers who are exposed to risks in the work environment, which in turn limits or prevents those risks. which workers are exposed to in the work environment, thus increasing the health promotion capacity of workers who are in contact with the hazards (Beijing,2016)

In the decade or so in the 1980s, everyone has noticed occupational diseases and their effects, and has conducted extensive discussions on worker health and safety issues. Research on occupational diseases is no longer limited to medical caregivers. Experts in the field of industrial hygiene have also contributed a lot to this change (He, X., & Song, 2014).

As the ability to analyze the concentration of trace substances has increased, occupational disease researchers have learned many substances, biological sources, or energy that are still harmful to the human body

although they are very small. Exposure to trace amounts of industrial raw materials may also harm the health of workers (Wegman & D. H ,1992).

Now when engineers are responsible for designing and constructing industrial facilities and manufacturing processes related to operations, they must take into account the health of workers. For new substances or new manufacturing processes that are continuously introduced, the health effects must be paid attention to in the design stage. Engineers should not sacrifice health considerations in order to adapt to reality (Schaller, H. E., & Lotter, O ,2012).

The public's increasing attention to such issues has had positive effects. For example, most workers pay more attention to health issues and realize the need to educate relevant practitioners (such as engineers) on health issues. This book hopes to understand the relevant (Sritharan, J., MacLeod, J. S., McLeod,2019) .

Knowledge, engineers can contribute to improving the well-being of workers. Occupational diseases can be prevented, and understanding the nature of occupational diseases (identifying pathogens, assessing exposure, and studying the interaction of harmful substances with the human body) will establish a safe working environment. To achieve this state, part of it requires engineers to consider the health effects of special operations during the entire engineering design. (Watterson, A., Jeebhay, M. F ,2020).

If you notice the interaction between workers and the work environment, it will affect the design of the process, including engineering controls, decisions about safe operation procedures, and the use of protective equipment. This education unit intends to introduce some basic principles to engineers and students so that they can understand the occurrence and prevention of occupational diseases. Before discussing occupational diseases in more detail, let's review the current scientific

background knowledge of workers' diseases (Varonen, U., & Mattila, M. 2000).

Occupational health and well-being or social comfort are two essential parts for increasing the productive capacity, which in turn has a clear impact on increasing economic development, which is considered sustainable development, as the constitutes about 45% of the world's population and 58% of the population aged over ten years are from The labor force, which is a source of continued economic and material strength for these societies (Eyayo, F ,2014).

The goal of working with the system of strategies is that over time, countries must be aware of the positive trend of occupational health and safety effectively, and to show more progress and improvement of the health reality in the field of occupational safety, which greatly affects the reduction of the level of risks that workers are exposed to in the work environment Which is naturally high risk (Schulte, P., & Vainio, H. , 2010) .

The occupational environment is a risky climate. Work related wellbeing and safety2 perils are normal in numerous monetary areas and influence huge quantities of laborer (Vartia-Väänänen, M.,2003).

Around 30-half of laborers report risky physical, substance or organic openings or over-burden of absurdly weighty actual work or ergonomic elements that might be perilous to wellbeing and to working limit; an equivalent number of working individuals report mental over-burden at work bringing about pressure side effects. Numerous people burn through 33% of their grown-up life in such unsafe workplaces. Around 120 million occupational related mishaps with 200,000 fatalities are assessed to happen every year and a few 68-157 million new instances of occupational related illness might be brought about by different openings at work (Melchior, M., Roquelaure, Y., Evanoff, B. 2018) .

Notwithstanding superfluous human misery, the costs implied in these wellbeing perils have been assessed to sum up to a few percent of certain nations' gross public item GNP (WHO. ,2003).

During the year 2003, the period of June, which saw a worldwide meeting called the International Labor Conference, in which principles and methodologies for work in the field of occupational related wellbeing and security were talked about. Managers and 58 working individuals in the field of word related wellbeing and security (ILO,2014) .

Knowing that it was founded in 1919 and since that time its subject and objectives are in occupational (H&S) contract by it and its outputs in relation to occupational health and safety, and its private and public activities by setting standards and strategies that attracted attention and discussion in 2003 at a high level of interest among the delegates to the organization International work on the issue of occupation, safety and health (ILO,2016).

Being a somewhat new calling in Brazil, Occupational Therapy (OT) has as of late become better known to the overall population and has figured out how to bring its social profile up in this country. The primary word related treatment (OT) undergrad program in Brazil was opened in 1956 in Rio de Janeiro by the followed by USP (São Paulo University) after a year, both as basically based specialized courses. It turned into a college undergrad program in 1991 (Brower, J., & Chalk, P. ,2015).

2.2. Theoretical framework. . (Florence Nightingale's theory)

The theory was chosen according to the concept of the study about the risks that workers are exposed to in the work environment, and that the theory has dealt with the study of the risks to which workers are exposed through the study of the environment and its impact on workers.

The theoretical of research guiding for nurses practice and nursing when to work in model in these theory (Pirani, A., & Bachman, M. A. 2018).

Likewise, the current study on occupational hazards benefited from many concepts of Florence Nightingale's theory on environmental safety, even if it was only at the level of assessing these risks without reaching the stage of treating and evaluating them (Martins, D. C. ,2018).

Florence's theory shows that, which included the study of climatic conditions and how to deal with them according to special standards, increases the workers' experience in how to avoid making mistakes. She also emphasized the study of climatic variables and emphasized the role of nursing and gave him the right to deal with climatic influences and how to deal with them. There is no similarity with medicine in this field (Brewer,M. A., & Jones, K. ,2021)..

Correspondingly, Nightingale's Theory contained four Meta worldview or ideas and can be itemized as:

2.2.1 Environment:

Climate: Physical parts of the climate incorporate ventilation and warming, soundness of houses, Light, noise, vibration and other cleanliness of the environment and food, how to deal with climatic variables and how to avoid physical and mental injuries and neglect to reduce the problems that occur to prevent illness (Smith, M. C. ,2019).

1- Person:

The persons while happened nursing management of care . Although the information that Nightingale didn't characterize the personal explicitly, she conceptualized individual as comprehensive (Ali Pirani, 2016).

2- Health :

Well just however to have the option to utilize each power the individual has. The good condition has a unique kind of application in terms of the quality of benefit from solving the problems encountered during the work and thus ensuring a good level of health for all (**Warner, K. 2017**)

3- Nursing :

is seen in two fields. The first is characterized as broad nursing; she complete the exercises referenced in groups of climate and another is legitimate nursing who are taught in the craftsmanship and the study of nursing. They can apply nursing process (Von Kardorff, E., & Steinke, I. ,2012).

Sub ideas of songbird hypothesis Including ventilation and heating - eating food - vibration - noise and with regard to nutrition - home health and personal hygiene and how to maintain the quality of ventilation and maintain good health (Denis, J. L. ,2015).

In conclusion, and after we reviewed the most important thing in Florence's environmental theory, it can be said that the current research has dealt with many theoretical concepts from the perspective of assessment, such as the concept of the environment, which contains many physical, chemical and biological aspects. The concept of health was taken into consideration during the research. As for the concept of nursing, the current study applied the first steps of the nursing process, which is the assessment of occupational hazards (Soler .,2010).

Obviously, the current study is not experimental and does not include a planning and implementation process, but rather paves the way for other experimental studies in which all steps of the nursing process can be

applied from the perspective of Florence's environmental theory, and not only assessing these occupational hazards (Pfettscher, S. A. ,2021).

The board is dependable and responsible for the wellbeing and strength of laborers, Stewart expressed that the essential driver to somewhere safe and secure is the factors including the executives responsibility, line possession, and labor force association, these variables are support by wellbeing frameworks and practices (Hünefeld, L., Gerstenberg, S., and Hüffmeier, J. ,2020).

The result for this model is protected actual climate and security mindful mentalities and ought to bring about remarkable wellbeing execution (Han, S. et al .,2014).

Indeed, even in the midst of financial somberness, and to advance word related wellbeing and wellbeing in a steady way across all levels

The result for this model is protected actual climate and security mindful mentalities and should bring about remarkable wellbeing execution (Erkılıç, E. , 2021).

The administrative obligation regarding word related wellbeing and wellbeing incorporates the dangers run by individuals in different work exercises and the dangers that those exercises posture to different specialists and individuals from people in general, Management obligation to word related security and wellbeing is reflect in the capacity of the upper-level administration to exhibit a suffering, uplifting perspective towards word related wellbeing and wellbeing (Nembhard, I. M., & Edmondson, A. C. , 2016).

Indeed, even in the midst of monetary grimness, and to advance word related security and wellbeing in a steady way across all levels inside the association, Only when there is harmoniousness between words, practice

and mentality of the chief's and those of the administration, representatives will feel they are essential for the association and security execution will improve, (Wick, E. C. , 2017).

This model is great in a manner as it centers around extraordinary wellbeing execution and its determinants that drive towards a remarkable security execution, Commitment of senior administration is indispensable to expand wellbeing and wellbeing execution (Chen, J., & Chen, D. 2016).

The executives responsibility is an essential element as administrative skill in word related wellbeing and wellbeing must basically be comparable with the dangers innate in the business undertaking and should be pretty much as great as that expected to work the business effectively,(Zhao, Z. , 2016).

The administrative obligation regarding word related security and wellbeing incorporates the dangers run by individuals in different work exercises and the dangers that those exercises posture to different specialists and individuals from general society (Qamar, N. U. ,2018).

The board obligation to word related wellbeing and wellbeing is reflect in the capacity of the upper-level administration to exhibit a suffering, uplifting outlook towards word related security and wellbeing, even in the midst of financial severity, to advance word related wellbeing and wellbeing in a reliable way across all levels inside the association. Local area (Michie, S.et al . , 2017). just when there is consistency between words, practice and demeanor of the chief's and those of the administration, workers will feel they are essential for the association and wellbeing execution will get to the next level (Williams, Kang, & Johnson, J. ,2016).

2.3. Epidemiology of occupational health .

There are some criteria and indicators that include all work accidents that workers are exposed to within the work environment, according to the estimates of the Labor Organization of the World Health Organization, which in turn refers to accidents at the work level, which amount to about (270) million accidents annually, which are accidents that occur with workers Within the work environment, as well as due to occupational risks, and also about (160) million in the world suffer from work-related injuries and diseases (Goldman, L. , 2018).

Epidemiology the purpose of epidemiological research is to try to find out the relationship between the exposure of harmful substances, the incidence of disease or harm, and the distribution in society. Unlike clinical medicine that emphasizes above the deter main &treated of the accident of self-care (Criqui, M. H. ,2017).

With regard to accidents that occur within the work environment and significantly affect the increase in injuries, especially in the Arab countries, despite the few industries that are planned and incubated by the Arab countries, which increases and affects the presence of industrial failures significantly in following safety and occupational prevention procedures in general and safety and security instructions (Mannering, F. L. , 2015).

The industrial sector in particular, and there is also a general weakness in the control of these risks, and it becomes important to increase the activation of a role or responsibility that aims to work on developing plans in the ground of occupational safety that are greatly developed and updated on scientific basis (Izadi, N. , 2014).

Therefore, it must be supported by awareness programs and guidelines that increase and contribute significantly to all visual media, both audio and

print, in order to reach every Arab worker working in a factory or mine, and also to reach all individuals working to convince him of the role of occupational safety and occupational health and how to implement its procedures in order to Positively reflected on him and his country and that this is coupled with the role of specialists in the field of occupational health and safety to stand and adhere to the application of these policies (Djalali, M. , 2014).

2.3.1 epidemiologists emphasize the form of disease or injury in the population to find out the cause.

Individuals are exposed to other factors that affect the outcome of the disease (interference factors) in addition to specific environmental factors, the explanation of causality becomes equivalent. difficulty. The original epidemiological data may include the form of exposure, position and death records or medical records. The results of the study may describe the incidence of a specific disease (Kwedi Nolna, S., 2016) .

may be expressed as a rate standardized by the general population. In these studies, statistical methods are usually used to determine whether exposure (including degree and time) will cause an increase in the disease rate. The results of epidemiological research are helpful in assessing causality, but they are often inaccurate due to data errors, the appearance of interference factors, and deviations in research (Lees, A. J., & Schrag, A. 2017).

Therefore, I would like to point out here that the Arab Institute for Occupational Health and Safety in Syria (Damascus) conducted a survey study that included some Arab countries for the purpose of identifying or identifying the reality of injuries that occur at work, by way of healthy as the reality of occupational health and safety in general (Langholz, B. , 2018).

First:

Qatari-Arab legislation in the sphere of occupational health and safety (OSH) and how to protect workers from injuries and accidents that occur within the work environment, and it was found that they are sufficient and appropriate in the event of commitment to their application and implementation.(Fluellen,L.,& Rodriguez, M.2018). .

Second:

The standards and conditions related to the protection of workers that occur during work, in turn, confirmed that all countries possess the importance of tripartite cooperation in the field of limiting or controlling accidents within the work environment, and it was found that the systematic policies and legislation in those Arab countries with the exception of (Jordan and Sudan) obligate the And institutions that design protection for those accidents that result from dealing with machines and equipment and applying special standards that match machines and equipment, physical and mental ability of the worker and how to deal with them well (Dollard, M. F., & Bakker, A. B. ,2017) .

Third:

The study revealed that there is no follow-up or central authority in the Arab countries on occupational health and safety in the Arab labor countries or organizations responsible for the independent follow-up and supervision of protection from those accidents that affect the worker within the work environment (AT, V. , 2014).

Fourth:

The study showed that there are many Arab countries that lack national centers for occupational safety and health information to provide

support, expertise and assistance in how to implement occupational health and safety standards or conditions for industrial establishments in Arab countries (Arbury, S., Lindsley, M., & Hodgson, M. ,2016).

Fifth:

It was found that the Arab countries may adopt statistical systems concerned with recording and publishing the results of work accidents, without referring to or relying on statistical analysis systems that occur within the work environment (Beghi, E. , 2018). .

six

The percentage of workers in the presence amounted to about above of 4% of the workers work in environment hazards who came (19)%, the large family from (7 to 15) individuals amounted to (30%) (Chitimira, H. , 2016).

Seven

Likewise, it was noted that in the State of Jordan the worker or workers who are not well trained to perform the tasks related to (OHS) and in accordance with the principles of correct practice, which in turn preserves the safety of the worker or workers from exposure to risks that result in that industrial environment, and there have been reports that prove that the institution Health and social security in Jordan that a large proportion of injuries to workers working in the industrial environment are of young age groups, which in turn leads to physical disability, disability or death for workers whose work period was less than 6 months (Odediran, S. J., & Windapo, A. O. , 2017).

When apply the epidemiological model). on our study which concerned with phenomenon of OHS with nursing applies

Epidemiology has learned focus originally solely in cases of outbreak of infectious diseases but it extended to deal with treatment of communicable and non-communicable diseases. By the mid-20th century, as well as it has been the development of epidemiological methods and also to include chronic diseases, accidents, birth abnormalities, and child and mothers' health in addition to occupational and environmental health. Then looking for the well-being and Health-behaviors like practicing exercises and the amount of these exercises (Keeling, M. J., & Rohani, P. ,2017).

nowadays, molecular and genetic studies are adopted and studying of infectious diseases genetic markers risks become available. In fact, relate to the validity term can be considered states or events, anything that affects the well-being of the population. However, many of the infectious diseases continue to use word illness as a shortcut for global of health problems that other on the environmental situation of the relevant countries (Fishman, N., 2016).

2.3.2. Host (workers).

Hosts living beings, usually humans if exposed Harboring the disease. The host can be a neighborhood that gets sick organism, as well as any Injury may. Although the host may or may not know they have the disease or have injury on the outward Signs of the disease, the disease does not take housing from the host (Bell, B. P. , 2016).

It also includes the symptoms of the disease. Different people may be Reactions to the same factor. For example, adults infected by the employer or by friction from a distance (Nies, M. A., & McEwen, M., 2014).

2.1.3. Agent (Occupational hazard) :

- ❖ Chemical
- ❖ Physical
- ❖ Psychosocial hazards
- ❖ Electric hazards
- ❖ Mechanical hazards
- ❖ Biological hazards

2.3.3. environmental (Occupational hazard).

An environmental factors effect on the appearance of Agent host correlation, and the courses and the outcome of such interaction between these two factors (agent-host). Physical environment includes the geographical, geological, and atmosphere characteristics of a place, the elements sources (water, temperatures, radiation), all these factors act as positive or negative stressing factors. (However,. & Kettel, L. , 2001). all these factors may influence the host agent interaction, but the social and psychological factors still have a significant role in this interaction(Messias, D. K. H., & Adams, S. A. , 2017).

Increase in industrial waste-products and toxic materials, unfortunately, disturb the fresh environment, in both indoor and outdoor environments that emerge a real health threats to both working and general population. Social environment involves the economic and political issues that may influence the individual and community health. different factors contributed the human health are included such as hygienic and sanitary conditions, house conditions, and level of development in health-care services (Hulme, A., & Finch, C. F. , 2015).

The environment and a favorable external conditions to the host that cause or allow to illness or injury or to get moving. To others, some still, ones affected by the external act or exposure to positive or negative Living situation that to other worker health, depends on the degree of exposure and figs include occupational factors can be divided into chemical, physical, biological, psychological, or emotional (**Rubik, B., & Brown, R. R. , 2021**).

The agents related factors which may be associated with the development of diseases or occurrence of injuries, included the exposure to different factors such as biological, chemicals, physical or psychological and social. The environmental factors involving all the exterior parameters affecting the host-agent correlation and inter-action. (Becares, E. , 2013).

All these factors can effect on the workplace conditions such as temperature boundaries, crowd, move work, and inflexible management styles. Basically, the epidemiology principles are based on the health status and interventions for protecting and enhancing health, however, inter-correlation among the three elements (host, agent and environment) is complex (Leonhart, R. , 2017).

Basis and future environmental forecast

In recent years, China has promoted disaster reduction strategies such as the mid-range disaster reduction plan and the National Workplace 233 Disaster Reduction Program, which are effective As a result, the occupational disaster death rate per million persons in the whole industry has dropped by 55%, and the occupational disaster rate per million persons disabled by 42% has been reduced. Disaster reduction has obvious effects. (Zhang, J. J. , 2019).

Performance and However, according to the 2006 International Labour Organization (ILO) O H S with occupational safety In addition to working to reduce mortality from occupational disasters, countries should also establish a national-level program system, chemical management, and health . Health services, occupational safety and health management, national safety culture and other projects (DeMarie, S. M. , 2018).

In view of the promotion of occupational disaster prevention and the national occupational safety and health plan, Involving the powers and responsibilities of central ministries and local governments, all agencies should further cooperate to strengthen the safety of the working environment and promote , Accelerate the reduction of occupational disaster rate and reach the level of the U.S., Japan and other industrial safety standard countries, and also need to respond to modernization (Brauer, R. L. , 2016).

Need targets proposed by the technique are as per the following:

- ❖ Fortifying of worldwide and public strategies for wellbeing at work and fostering the vital arrangement devices.
- ❖ Advancement of sound workplace.
- ❖ Advancement of sound work practices and advancement of wellbeing at work.
- ❖ Invigorating of word related prosperity organizations (OHS) .
- ❖ Reinforcement of help organizations for word related prosperity .
- ❖ Progression of word related prosperity standards considering legitimate bet examination .

- ❖ Improvement of heart reat for word related prosperity .
- ❖ Reinforcement of enlistment and data structures, improvement of information organizations for trained professionals, convincing transmission of data and raising of public care through open information.
- ❖ Invigorating of assessment .
- ❖ Advancement of cooperation in word related wellbeing and with different exercises and administrations.
- ❖ Every goal has two distinct focuses taking into account the global and public activities that are expected to meet the technique targets .(Ibusuki, U., & Kaminski, P. C. , 2017). .

2.4. occupational health .

(history and assessment. of occupational related wellbeing nursing) .

Nursing care for laborers started in 1888 and was called modern nursing. A gathering of coal excavators employed Betty Molder, an alum of the Bleckley Hospital School of Nursing in Philadelphia) presently Philadelphia General Hospital), to deal with their sickly associates and families (Ellis, B. G. ., 2015).

Ada Mayo Stewart, employed in 1885 by the Vermont Marble Company in Rutland, Vermont, is regularly viewed as the principal modern attendant. Riding a bike, Miss Stewart visited debilitated representatives in their homes, gave crisis care, showed moms how to really focus on their kids, and showed solid residing propensities (Felton, J. S. , 2010).

In the early long periods of occupational related wellbeing nursing, the medical attendant's work was family focused and all encompassing (Araneda, R. C. , 2015) .

Worker wellbeing administrations developed quickly during the mid-1900s as organizations perceived that the arrangement of worksite wellbeing administrations prompted a more useful labor force. Around then, working environment mishaps were viewed as an unavoidable piece of having some work. Notwithstanding, the general population didn't uphold this mentality, and a framework for laborers' remuneration emerged that remains today (Weiner, G. J. ,2013) .

occupational related prosperity accepts a central part in people's lives, since most workers spend something like eight hours of the day in the work space, whether it is on a house, in an office, modern office, etc Thusly, work environments should be secured and strong. Anyway this isn't valid for certain workers. Reliably workers from one side of the planet to the other are faced with countless prosperity hazards, for instance, (cleans; gases; upheaval; vibration and ridiculous temperatures) (Harrison, A., & Hutchins, B. L. , 2013).

This implies that word related perils can effectsly affect laborers, their families, and others locally, as well as on the actual climate around the working environment. An exemplary model is the utilization of pesticides in horticultural work (Talge, N. M., 2017) .

Laborers can be presented to harmful synthetic compounds in various ways while splashing pesticides: they can breathe in the synthetics during and in the wake of showering, the synthetic compounds can be retained through the skin, and the specialists can ingest the synthetics on the off chance that they eat, drink, or smoke without first cleaning up, or then

again assuming drinking water has become sullied with the synthetic compounds (Valdimarsson, G. ,2017).

The workers' families can moreover be uncovered in different ways: they can take in the pesticides which could stand by in the air, they can drink contaminated water, or they can be introduced to stores which may be on the expert's pieces of clothing. Others locally can be for the most part revealed in the same ways as well. Exactly when the manufactured substances get polished off into the soil or channel into groundwater supplies, the troublesome effects on the normal living space can be really sturdy (Takatori, N. , 2014).

Generally speaking, endeavors in occupational related wellbeing and security should mean to forestall modern mishaps and illnesses, and simultaneously perceive the association between specialist wellbeing and security, the working environment, and the climate outside the work environment (Rogers, J. , 2012).

Business related wounds and mishaps are the main issue work laborers processing plants, given the unsafe idea of industrial facilities climate work habitually experienced with every day dangers, which incorporates physical, organic, stress and synthetic perils, Physical risks range from ecological conditions that may came about to falls, cuts or electrical shocks, Biological in different piece of clothing perils then again, range from openness needle therapy, microorganisms, hepatitis, and tuberculosis among others on account of infusing laborers. (Huang, T. ,2015).

Synthetic risks incorporates with unsafe specialists going from cancer-causing agents, corrosives and poisonous All security insurances and methods, including the wearing of any defensive attire as well as hardware (like fitting footwear, wellbeing glasses, hearing, hand assurance) should be seen consistently (Rubio-Romero, J. C. , 2021).

The laborers in the piece of clothing industrial facilities are fundamentally presented to postponed sitting, long standing, significantly monotonous work, lifting of significant things, working with their hands lifted to bear level or a lot higher, and working with their back turned or contorted forward, that have been displayed to anticipate disabled work capacity and improve long haul ailment (Carr, M. , 2021).

Global examinations have recognized various medical conditions among modern laborers overall and piece of clothing laborers specifically, explicitly, the specialists with monotonous nature of work due to the genuine solicitations are leaned to get physical, mental and sustaining clinical issues (Cheung et al ., 2016).

Article of clothing laborers were experience outer muscle issue, cardiovascular, respiratory, gastrointestinal, gynecological, ophthalmological and wholesome issues and dysfunctional behavior, The outer muscle issues were the most noteworthy among all with a pervasiveness of The most well-known district impacted were back, needle stick followed by shoulder and Review of The investigations uncovered that the significant medical issues among the medical issues among piece of clothing assembly line laborers uncovered that the outer muscle problem were more predominant, most of the examinations were conveyed among ladies, Therefore, it is important to arrange explicit projects focused on avoidance of outer muscle issues among article of clothing workers (Khairi, M., Nozulaidi, M., & Jahan, M. S. , 2015).

The specialists in the piece of clothing manufacturing plants are presented to work which require high focus like cutting, sewing and completing which causes migraine and visual uneasiness For this explanation, they decide to take unhygienic food which cause different kinds of medical issues like food contamination, the runs, gastric agony,

unhealthiness, stomach torment, An investigation discovered that laborers in the experience the ill effects of some medical conditions like hunger, less craving, looseness of the bowels, hepatitis , food contamination, etc, that are identified with the food they generally take (Habibullah, M., Hossain, M., & Islam, M. , 2016).

As indicated by the World Health Organization (WHO), in excess of 59 million medical care work force are presented to natural, compound, and actual dangers consistently. occupational related injury counteraction is basic for giving top notch clinical consideration, further developing resolve, and expanding proficiency by decreasing time-misfortune and other truancy (Marshall, P. D. , 2014).

This has been demonstrated in a study directed in Coimbatore, in the province of Tamil Nadu, the discoveries of which uncovered that the greater part of the laborers experience the ill effects of medical issues, neither do the specialists have rest in the middle of their work nor do they get appropriate nourishment (Timai, P. , 2017).

Wellbeing dangers: Occupational Health Hazards are comprehensively separated into

.This figures distribution of hazards in occupational work

- ❖ Physical Hazards
- ❖ Chemical Hazards
- ❖ Biological Hazards
- ❖ Behavioral Hazards
- ❖ Psychosocial Hazards
- ❖ Mechanical Hazards
- ❖ Physical hazards .

Occupational health hazards :

Natural hazards in the workplace mean all that influences the security and wellbeing of the workers because of regular dangerous or hurtful variables, and these normal elements are either heat, mugginess, briskness, commotion, sound, vibrations and lighting,(Mbirimtengerenji et al., 2015).

1-Elimination:

The materials or apparatuses that outcome in peril are supplanted by materials or instruments that are less risky or without hazard. For instance, while managing profoundly combustible materials, they are supplanted with other less combustible or combustible materials, and here it should be noticed that the option ought not include its utilization of some other dangers (Vandermerwe, S., & Oliff, M. D. 2016).

2-Engineering controls:

It is the third best method for controlling dangers. This strategy doesn't kill chances, but instead disengages individuals from chances. Building exceptional ways to exit in the event of crisis and introducing alarm units and focal fire units are among the overall designing controls that can lessen the event of risks (Spirin, V. et al ., 2015).

3-Managerial controls:

These are the setting up of regulations, guidelines and practices that guarantee the advancement of work to decrease or forestall the event of dangers and they incorporate preparation of representatives, and the establishment of signs and advance notice signs like composing work directions in labs (Maus, M. V. et al ., 2015).

Personal protection equipment:

Personal defensive hardware (PPE) incorporates gloves, respirators, hard caps, defensive glasses, defensive apparel, wellbeing showers, security shoes and different instruments and materials that decrease the assurance of the wearer from the dangers that might happen (Hassan, S. A. et al ., 2020).

Individual defensive hardware is viewed as the most un-successful method for controlling gamble on the grounds that the gamble might be high to such an extent that PPE becomes incapable. Furthermore, some private defensive gear, for example, ventilators, expands the physiological and actual exertion of the people who manage it, and consequently, may require clinical assessments to guarantee that representatives can utilize PPE without taking a chance with their health (Mokdad, A. H. et al ., 2020).

This has been demonstrated in a study led in Coimbatore, in the province of Tamil Nadu, the discoveries of which uncovered that the majority of the specialists experience the ill effects of medical issues. Neither do the specialists have rest in the middle of their work nor do they get legitimate nutrition (Lilly pet et al., 2017)

Actual dangers are regularly supposed to be less significant than substance hazards yet nature of actual specialists is wide and ought not be misjudged this isn't really. They can and do cause a few medical issues, wounds or even passing, however the primary ones equipped for causing occupational related issues and wounds are:

- ❖ N(noise) .
- ❖ L(lighting) .
- ❖ . V(vibration) .

- ❖ R (radiation) .
- ❖ Microclimatic conditions on account of outrageous hotness and cold.
- ❖ mugginess
- ❖ Ventilation (Kena, G., et al., 2015) .

Noise :

It is a sound, however it harms the consultation and invigorates the spirit, and it has high frequencies, Noise and is spread by the vibration of items as it happens in machines and gear when they are pivoted, just as to fluctuating levels of sound at high frequencies Noise effectsly affects the ear and its impact prompts deafness or hindered hearing, and there is a permissible breaking point to clamor and the individual can work in it or be in a spot for quite a while, addressing 8 hours every day for five days for a long time (Mor, O. et al., 2021) .

Clamor directly affects focus while performing work and a backhanded impact that influences circulatory strain levels and heart mood, particularly in logical research centers, study halls and talks, Therefore, there are designing strategies for sound protection as indicated by designing and clean principles ... and so forth Shapiro CN. occupational related danger of disease with hepatitis B and hepatitis C infection (Fahy, J. V. , 2018).

2.5.Physical hazards:

These are occupational dangers that result in various energy types with diverse impacts. Workplace lighting, temperatures, vibrations, and radiation are examples of these influences (Thornbury, S. , 2017)...

This constitutes the above scheme, in which it is clarified that the worker is exposed to a set of physical hazards , which in turn lead to physical harm that may reach the level of disability, and as shown in some

forms, how to adhere to health protective equipment to prevent or reduce exposure to those occupational hazards (Rahman, S. , 2019).

The regularly utilized therapies that have the potential to cause damage are: Physical dangers are apparent and obvious in general; yet, they vary from other hazards such as chemical and biological hazards in that physical hazards do not need laboratory examinations. Physical dangers might be natural or man-made, such as sinking. or other injuries. According to the general definition, hazard is a collection of conditions that lead to injuries or death. Risk as a term usually used to represent the probabilities of developed an adverse outcome due to exposure to certain hazardous factor (Goniewicz, M. L., & Zielinska-Danch, W. , 2018).

Hence, in the following sections the hazards are discussed they are the potential reasons for adverse impact on health and unavailability of methods of preventing or ameliorating exposure against pernicious health sequels. Adverse outcome severity is broadly differs and even included death (O'Callaghan, J. P. et al .,2016).

For instance, major injuries might lead to quadriplegia or paraplegia as in cases of spinal injuries or head injuries. Fractures and breaks of bones due to sliding or falls on greasy grounds or from height (Mandelkern, M. A. et al ., 2019).

Previous studies and literatures referred that young age persons more likely to be injured because they represented the higher proportion of working man power and human resources in many industries, therefore, increase the awareness and educating programs should targeting these human resources in regard to the safety behavior and measures (Afridi, A. A. K., Kumar, A., & Sayani, R. , 2015).

There are a wide range of kinds of wounds and risky circumstances, and there are numerous different reasons for these dangers or wounds, like incidental passings, falls, impacts, sliding, and so on, that can bring about appendage cracks and can occur in an assortment of circumstances because of perilous conduct or the inability to utilize security and defensive measures (Hassim, M. H.et al . , 2018).

Actual perils can bring about sicknesses. Actual perils are connected with work cycles and circumstances, and they might create wellbeing takes a chance because of the impacts of specific positions, for example, tedious movement, specialist deficient wellness with the work station, sliding floor, disarranged workplace, or conveying weighty loaded things (Rittenberger, J. C. et al .,2016).

When assessing and evaluating dangers, various crucial elements should be taken into account, including:

- ❖ The existence and character of a dangerous element, whether natural or manufactured.
- ❖ The utilization of recreating & restorative inceptions.
- ❖ The caring, duration, and concentration of danger contact

(Purser, D. A., & McAllister, J. L. , 2016).

The following figures above shows that the work organization and how it affects the life of the worker within the work environment and how to control and prevent and reduce those hazards through controlling them through the use of equipment Protection and prevention of those risks through the application of means of occupational health and safety as any defect in the application of those standards (Environmental Health and

Safety Standards) negatively affects the worker's life in the work environment (Mahood, Q. et al ., 2017).

Commotion & vibration remain firmly connected trendy that clamor begins from a vibrant body and both clamor and shaking need comparable material science as they are sent as waves complete a medium. The wellbeing effects of commotion dangers are very much perceived with clamor prompted hearing misfortune distinguished as really important business related infection for Australian specialist (Duckert, L. , 2017).

The expressions commotion and vibration are frequently connected as in, for instance, 'clamor and vibration designing.' This is on the grounds that openness toward vibration remains generally connected with openness to commotion, and the material science with vibration & commotion are comparable (Holmes, J. A. ,2017).

While the particular wellbeing impacts of openness to clamor are distinctive to those emerging from openness to vibration, they are both slippery and can show later a significant stretch of idleness. The wellbeing impacts of clamor & vibration ought to be approached in a serious way by their makers as a component of their business exercise (Cortright, B. ,2017).

The board of commotion and vibration risks is an expert region with guidance ready to be obtained from clamor & vibration engineers, word related hygienists and audiologists. This part manages commotion and vibration according to the viewpoint of the generalist OHS proficient thus tends to the fundamental information needed to comprehend, distinguish, survey and control clamor and vibration risks in the working environment and to draw in with the fitting trained professionals (Satapathy, S. ,2021).

The term vibrations has been defined in a variety of ways. Managing Noise and Preventing Hearing Loss at Work is a proposed code of practice. (Maguire, B. J. ,2018). Supplementary portions of the physique are impacted based on the labor setting, the prominent occurrences of the noise contact, the capacity to change postures throughout the exposure time, therefore the documented effects on the spinal structure are only half of the problem with whole body vibration (Abdalla, S. et al.,2017).

The following are the primary impacts in general:

- ❖ Digestive issues • Blood pressure fluctuations, which might lead for heart diseases .
- ❖ Defects at the ear's system .
- ❖ Exhaustion and overall inefficiency.
- ❖ Motion sickness disrupts the ear's balance system, resulting in an overall feeling of ill health.
- ❖ Obstacles to conception in the reproductive system .(Safety, A., & Council, C. ,2018).

Vibration exposure is common in today's industrial environment, whether as a by-product of an activity or intentionally induced. Vibration is a by-product of several processes, including the usage of hand-held power instruments, gear, and vehicles like trucks, farm haulers, and tractors. Concrete pours utilizing vibrators to shake wet cement into position, vibrating beds in rock quarrying to pick molecule size (Wenzel, H., Hauschild, M. Z., & Alting, L. ,2015).

The cleaning showers for modern items are all examples of processes where vibration is intentionally introduced. Forestry, mining, metal manufacture, agriculture, furniture manufacturing, building, cleaning, and

transportation are among industries that have high vibration exposure (Keegel, G., MacFarlane, Nixon, & LaMontagne. ,2014).

Both (noise and vibration) are communicated as waves across a medium, with noise coming from a vibrating body and both noise and vibration coming from a vibrating body (Cocroft, R. B., 2014).

When it comes to noise, the most common medium is air. Vibration may be transferred through solid objects like the floor or tool handles. Grasp the behavior of noise and vibration, as well as the construction of controls, requires knowledge of units of measurement such as hertz and decibels, as well as a basic understanding of wave mechanics such as frequency, wavelength, amplitude and reflection, absorption, and transmission (Rayleigh, L. (2013). .

2.5.1. Noise and its measurement

Contingent upon the style and size of the working environment, the quantity of laborers, and whether or not past commotion appraisal information is accessible, a clamor evaluation may be straightforward or genuinely confounded (Pan, L., et al 2018).

A sound level meter (SLM) or a clamor dose meter can be utilized to survey sound levels . Since a SLM is frequently hand-held, the assessor is there when the estimations are made; this has the advantage of permitting the assessor to see what is being estimated firsthand (Hempton, G., & Grossmann, J. ,2009).

A person conducting a noise assessment must fulfill the AS/NZS 1269.1 competency standards, which include:

- be comfortable with the common working conditions of the working environment;

- be comfortable with the motivation behind the assessment; and
- be acquainted with the material Australian Standards and administrative necessities (Miller, K. , 2013). .

Noise Exposure Standards:

The quantity of energy absorbed by the inner ear determines how much damage is done to the ear. Two things influence this:

- Noise level in decibels (dB) .
- Duration of exposure in hours and minutes (Miller, K. , 2013).

Noise-induced hearing loss :

Except in the case of excessively loud noise that causes hearing misfortune as well as primary harm (acoustic injury), boisterous clamor exhausts the touchy hair cells in the internal ear, making an adjustment of hearing edge. A brief edge shift is the thing that this is alluded to as . Workers can conduct a simple test to measure the impacts of workplace noise exposure and its impact on hearing acuity (Doda, D. , 2017).

The chances of acoustic shock occurring as a result of an acoustic occurrence are low; in any case, factors, for example, high foundation clamor, the administrator's psychosomatic state (for example encountering sensations of strain), and physiological state (e.g. suffering from a middle ear infection) may increase the chances. Call centers are the most prevalent venues for acoustic events, while they may occur in any job (Behnia, A., 2016).

Control measures for acoustic occurrences should focus on the following areas:

- ❖ Workplace layout, including acoustic considerations

- ❖ Workplace systems, worker performance monitoring, training and stress management, reporting systems, and procedures to cope with acoustic occurrences besides shockwave
- ❖ Specialized control frameworks, which incorporate media communications consistence, shout dismissal gadgets like Volume Limiter Amplifiers for each phone administrator, and uninterruptible power supply (UPS) frameworks to stay away from brown-outs and power outages that cause signals in headsets (Niederleithinger, E. et al ., 2015).

Vibration environment :

Vibration is portrayed as oscillatory developments of particles (molecules) around their congruity in a solid body, liquid, or gas, in the infrasound repeat range (for instance 20 Hz) and, to a lesser extent, in the detectable sound repeat range (up to 1500 Hz). Since vibration happens in air - in the detectable repeat range - it is typically considered to be strong in current settings (Ermakov, S. et al ., 2015).

Health effects of vibration

Injury to the lower spine is the most well-known wellbeing consequence of entire body vibration; notwithstanding, harm to inward organs can likewise happen Entire body vibration has been displayed in examinations to raise pulse (Sana, S., Bhat, G. A., & Balkhi, H. M. ,2017).

Prevention of the effects of sound and noise.

The prevention of the effects of sound and noise is based on three principles: - Attempt to eliminate the noise and its source by changing the design of the machines and putting them in balance so that vibrations are decreased and therefore noise is reduced.

- Noise reduction with insulation material such as cork or spongy material
- Personal ear protection, such as cork or rubber plugs or a protective headphone, depending on the level of noise (Sereshki, F., & Saffari, A. , 2022).

One of the main establishments of cold avoidance is cold protection tasks with uncommon materials, for example, glass fleece, plugs, or unique synthetic substances, just as the most common way of wearing cold-defensive dress like gloves, garments, and shoes that give warmth inside the body and keep a temperature (Li, C., Wu, M., & Yao, W. , 2019).

Light: It isn't one of the dangers that besets the specialist, yet its shortcoming and helpless dissemination are an immediate reason for some mishaps, and its shortcoming causes eye infections because of visual tirelessness (Doosti et al., 2014).

- ❖ The justification for lighting dangers and harms because of its deformities, the most significant of which are
- ❖ Helpless lighting is a rule, and this prompts eye weakness, particularly in fragile items that need a sufficient measure of light (Luzuriaga, M. A. et al ., 2019).
- ❖ Poor dispersion of light by making it solid in one spot and powerless in another, and not circulating it appropriately in one spot Regularly.
- ❖ Dazzling or getting sight(Alweis, R. et al ., 2014).

Dampness:

Dampness is a fundamental element in enterprises like turning and weaving, tanning, or in the work space, uncovered regions, contingent upon the idea of the overall environment. Moisture has its own harm, which can

be summarized in the mental infections it causes, nerve torment, and dental pain (Irlbacher-Fox, S. , 2018).

Ventilation: Ventilation in workplaces and public places and two basic lights:

Fresh air to breathe and expel the impurities such as smoke, dust, gases, and unpleasant odors, as well as heat, humidity and cold (Borgheipour, H., 2020)

The main causes of spoiled work atmosphere and poor ventilation:

- ❖ Insufficient ventilation.
- ❖ The place is overcrowded with workers and people.
- ❖ Presence of furnaces or sources of combustion and heat.
- ❖ Existence of processes that give off fumes, odors, or dust (Enshassi, A., 2017).

Basics of organizing ventilation in workplaces :

- ❖ His ventilation outlets should not be less than 1% of the floor area of the place.
- ❖ Ensure that each worker has a vacancy of at least 10 cubic meters of working environment (Shafeek, H. , 2014).

Isolate sources of heat and cold

- ❖ Withdrawal of industrial products resulting from vapors, gases, or dusts through industrial ventilation, General rules for industrial ventilation:

- ❖ Suction devices and fans should be installed as close as possible to the place of generation of the materials desired to be suction and to the direction of dispersion (Miró, L., Gasia, J., & Cabeza, L. F.,2016).

The suction current must be strong so that the materials to be suctioned can be withdrawn and varies according to the type of material, as for steam, the current is weak. As for the dust, the suction current must be stronger.

Taking into account the maintenance and verification of safety of suction devices (Yadav, S., 2020).

The reason for lighting risks and damages as a result of its defects, the most important of which are

- ❖ Poor lighting in general, and this leads to eye fatigue, especially in delicate objects that need an adequate amount of light (Quater, P. B.,2020).
- ❖ Poor distribution of lighting by making it strong in one place and weak in another, and not distributing it properly in one place Regularly.
- ❖ Dazzling or caught sight (Malik, S. H., Blake, H., & Suggs, L. S. ,2014).

Illumination: It is not one of the risks that afflicts the worker, but its weakness and poor distribution is a direct cause of many accidents, and its weakness causes eye diseases as a result of visual diligence (Gambhir, R. S. et al . , 2016).

The prevention of moisture can be summarized in the following points:

- ❖ Maintaining permissible limits for humidity at work for industrial installations.

- ❖ Working on cooling the air in closed non-industrial areas and working on organizing ventilation (Sunstein, C. R., & Thaler, R. H. , 2013).

Type of personal protective equipment (PPE)

- 1- Protection of the hands:
- 2- Protection of the head:
- 3- Protection of the eye and face:
- 4- Respiratory protection standard:
- 5- Hazards of the feet:
- 6- Protection of ears (Çiriş Yildiz, C., Ulaşlı Kaban, H., & Tanriverdi, F. Ş. , 2022).

Kinds of PPE gloves:

- ❖ Gloves with metal mesh (used in handling and contact of sharp surfaces or edges.
- ❖ Leather gloves (used in rough surface and object.
- ❖ Gloves of vinyl and neoprene (used in handling of toxic material.
Rubbery-gloves (used for electricity processes)

The importance of protecting the head during work is to reduce the risks to which the worker is exposed. These injuries are usually in the head, which is considered one of the most dangerous injuries at the level of risks that the worker was exposed to in the work environment. Therefore, workers in those factories must adhere to head protection equipment to prevent those injuries that Usually life-threatening for the worker (Tanko, B. L., & Anigbogu, N. A. , 2012, July).

Protection of the eye and face:

The potential incidence of hazards to eye/face include the foreign bodies, objects that affected the eyes, fumes, dusts, powders, tiny particles all can enter the eyes and affected the eye tissue and function, In some processes such as splashing, smoothing and hitting can lead to formation of small particles as in the processes metal cutting or welding, the eyes can exposed to heat, glare, UV and infra-red rays. Wearing protective safety glasses is a good protective measure than the traditional glasses, according to the standard safety guides, the safety-glasses must be approved (McLaughlin, J., & Tew, M. , 2018).

Hazards on the eye and face The potential incidence of hazards to the eye/face include foreign bodies, objects that affected the eyes, fumes, dust, powders, tiny particles all can enter the eyes and affect the eye tissue and function. In some processes such as splashing, smoothing, and hitting can lead to the formation of small particles as in the processes of metal cutting or welding, in addition to the mechanical hazards caused by these particles, the eyes can be exposed to heat, glare, UV and infra-red rays. Wearing protective safety glasses is a better protective precaution than wearing standard spectacles because the safety glasses come with a side shield to protect the worker from indirect risks from the sides, rather than the front. The usual safety guidelines state that (Altalakany, 2017)

Protecting the feet during work is of great importance. The worker's commitment to the feet protection equipment protects the worker from potential injuries such as slipping, pollution and wounds, in addition to its importance that prevents the worker from being exposed to electric shocks while working in some departments, especially since the worker works in environmental conditions filled with cement, which is by nature It has an

effect on the skin, especially the feet, so it requires protection during work (Blum, K. et al .,2018).

protection of ears:

The ear is one of the most important sensitive organs of the human being, so it must be dealt with with all the importance and the application of ear protection equipment to prevent the occurrence of the risk of hearing loss during work or a state of deafness. Therefore, it is important to apply ear protection standards to prevent such injuries during work, especially since recently there have been cases of hearing loss during work. Due to the high vibration of the machines at work (Lookingbill, D. P., Lookingbill, G. L., & Leppard, B. ,2017).

Temperature:

Temperatures and humidity levels in the workplace must be kept as regular as possible. The suggested temperature ranges and maximum permissible levels are determined by the type and nature of the work. For light work in a sitting position, the recommended temperature is 21–25°C; for other light labor, the recommended temperatures are 19–23°C; for moderate-heavy work, 17–21°C; and for heavy work, 12–17°C. (Altalakany, 2017)

2.6.Chemical hazards :

In the United States alone, almost three hundred billion pounds of chemical ingredients are made every year, with nearly two million compounds produced; yet, only around 0.1 percent of these chemicals have been adequately investigated in terms of their impacts on humans (Goldman, L. R., & Koduru, S. , 2015).

Chemicals have been discovered in the bodily tissues of members of the general public. These tissue burdens might be caused in part by unintentional chemical releases into the environment, such as what happened in the direct canal when chemicals leached out of buried industrial wastes (Al Salhen, K. S. , 2014).

Several chemical causes in various labor environments might be at minor stages of hazardous exposure, yet they nevertheless have an impact on employees' health. Some of these compounds, on the other hand, may be mixed and interact, resulting in additional health impacts. Workplace reproductive risks have emerged as significant legal and scientific concerns (Mascitti, V. et al .,2013).

Chemical hazards included being exposed to various dangers as a result of manipulating or managing hazardous chemical compounds. The evaluated of on-the-job chemical hazards includes the evaluation of the risks associated with these variables, as well as the protection and safety measures taken, as well as the negative consequences of contact to these causes (Glehr, M., et al ., 2019) .

Chemical compounds posed a threat as a result of exposure to hazardous chemicals. The risk should be examined in relation to standard criteria, and further specific measurements are required to determine whether it meets workplace norms or not. However, the safety measures and dangerous features of each chemical agent, as well as safe handling procedures, may be derived from the labels affixed to these chemicals' packaging and containers, as well as from modern safe handling standards (Schuhmacher, M., Domingo, J. L., & Garreta, J. , 2014).

Industrial substances and materials can be classified based on their impact and affect on people, making them appropriate for epidemiological investigations (Megido, L. et al ., 2017) .

The information on the criteria and harmful effects of chemical substances and goods, as well as the safety precautions that should be taken when exposed to these chemicals, should all be provided by the producers. Moreover, data sheets with information on safety measures should be provided with each product, updated on a regular basis, and freely available to all employers (Winder, C., Azzi, R., & Wagner, D. ,2015).

The worker should be assured that hazards are kept to a minimum and that safety precautions are taken. To ensure this commitment, employers should revise and return hazardous and dangerous activities to manufacturers or suppliers, using substitutes to keep the risk to worker health to a minimum (Damalas, C. A., & Eleftherohorinos, I. G. ,2018). Checking substitute substances and exchanging the process can be done for determining the magnitude in health care services, therapeutic care, and sanitation measures. (Shavell, S. , 2018).

Processes with greater emission rates should be studied and appraised before to application, as well as on a regular basis afterward, in terms of engineering processes and applicable forms (Meo, 2008).

Despite awareness of preventative methods, diseases caused by mineral dust exposure continue to occur over the world. The implementation of engineering measures that minimize employees' exposure to mineral dust can help to avoid disease. Administrative measures and the usage of personal protection equipment can be used to augment such technology (Morman, S. A., & Plumlee, G. S. , 2016).

Epidemiological studies have reported an increase in the prevalence or risk of infectious illnesses in the working population, including chronic nonspecific respiratory diseases, cardio-vascular diseases, including hypertension, musculoskeletal disorders, and gastric and duodenal ulcers (Roy, N. et al .,2015).

Individuals who labor with harmful chemicals in agriculture or elsewhere may become poisoned by pesticides. Pesticides are stored, distributed, and handled within a short distance of people's houses. Pesticides have been carried or kept with food, and food or water has been placed in containers that previously housed pesticides (Pingle, S. , 2018).

People in danger are frequently oblivious of the threat because they have not been warned about it, or because employees have been given insufficient or no notice . (Lu, J. L. , 2019).

Frequent skin contact with moisture can cause destruction or irritation, and skin damage can lead to sensitization and allergic reactions. As a result, safety precautions must be taken to avoid this threat. Daily hand contact to moisture as a consequence of the continuous or incorrect usage of water and liquid proof leapers can lead to skin sensitivity and damage (Sasseville, D. , 2018).

Chemical toxicity can be intermittent, as it is most commonly encountered at work, or continuous at steady levels under certain conditions. For example, gasoline and chloroform have a more frequently intermittent harmful impact than a continuous poisonous effect. As a result, the concentration level has no bearing on the level of exposure and the estimated danger. Heavy metals, on either hand, have cumulative characteristics and are affected by their concentration (Lakhani, R. ,2014).

In excess of 100 various types of toxic substances were created by contagious and plant poisons. Longer hours in the service industry cause functional issues and may expose the worker to the cumulative effects of various medicines (Meeuwisse-de Vries, B. et al ., 2020). Employers who operate with hazardous materials must be educated on the risks involved and the precautions that must be taken.

Before and after the job, the risk assessment necessitated the creation of appropriate courses of training (as required). These courses should be taken at least once a year. The material offered to employers in these courses should contain various hazards of employees or occupations, and it must be delivered in writing form (Mohandie, K. R. I. S. , 2014).

This form or instruction must be written in a comprehensible and simple manner in the employees' native language, and it must be posted in a prominent and well-known location at work (Mylnikov, L., & Kuetz, M. , 2017).

Although we now know a lot more about some job hazards than we did in the past. Every year, new chemicals and technologies are introduced, posing new and often unexpected risks to both employees and the general public. Workers, employers, educators, scientists, and anyone else concerned about worker health and the impact of hazardous agents on the workplace environment face significant hurdles as a result of these new and unexpected hazards (Friis, R. H., & Sellers, T. , 2020).

That while discussing the work environment, it is important to remember that not all forms of labor are performed in enclosed spaces. And that, while factory and workshop workers did their work inside buildings, and miners did their work inside tunnels, the agricultural professions' work environment was - for the most part - open, as was the case for many other professions, such as traffic cops and public transportation workers, sailors, and Galion vendors, and those affected by - in addition to the specific risks to their business - everything. In such circumstances, the external environment concerns of qualitative risk for this firm must be evaluated (Di Bartolo, I. et .al ., 2016) .

Environment within enclosed spaces such as working and housing
Closed places of amusement and other interior environments, as well as the

environment and the school environment. It may also distinguish different interior habitats, the most significant of which is the work environment, depending on the sorts of activities that take place in these locations (Adan, O. C., & Samson, R. A. (Eds.). ,2019).

Workplace variables, together with other risk factors, have a role in the development of several diseases with numerous causes, which may or may not be related to professional considerations. As a result, they typically have broad effects on individuals, but when they impact workers, occupational variables may interact - to various degrees with other factors to produce disease. Multiple causes of illnesses are also known as illness at work (David, G. C. , 2015).

It is well recognized that several non-common occupational disorders, like as bronchial asthma disease, worsen when exposed to various types of dust Joe, and that non-professional personnel exposed to certain organic solvents have a higher risk of developing liver disease. Furthermore, some occupational conditions raise the risk of the wounded worker contracting additional diseases, such as pulmonary ossification disease, which increases the risk of TB infections (Kock, E. et. Al .,2012)

The above diagram shows the mechanism or stages of manufacturing cement, which in turn passes through 9 stages to reach the production stage, and through those stages, which in turn constitute a group of risks to which businesses are exposed in the work environment (physical, chemical, biological, mechanical, electrical, psychological and other risks from Hazards that negatively affect the worker's health (through contact with those machines, as well as exposure to that environment that poses a health threat to the worker's life) Through contact with these machines as well as exposure to that environment that poses a health threat to the life of the worker (Saetta, A. V., Schrefler, B. A., & Vitaliani, R. V. , 2017).

Occupational Health Hazard :

Control Recognize the hazards and dispose of it or Control at source through dust gathering framework or other designing control strategy. Water sprinkling and guaranteeing great housekeeping on customary premise is additionally best strategy to controlling residue and forestalling word related wellbeing infection (Misra, V., & Pandey, S. D., 2015).

Keep up with dust control frameworks on ordinary reason for keeping them all ready. Direct air checking to quantify specialist openings and guarantee that controls are giving satisfactory assurance to laborers (Power, M. , 2014).

Concrete industry laborers should wear reasonable staff defensive hardware like high-proficiency particulate capturing or high-productivity particulate air (HEPA) veil, wellbeing goggles and compulsory get pre-business and clinical reconnaissance on occasionally (Ramos, D., Afonso, P., & Rodrigues, M. A. , 2020).

The Use wellbeing gloves additionally for forestalling dermatitis like infection. Shown post admonition signs inside manufacturing plant and Provide preparing to laborers and staff's for making mindfulness and taking reasonable wellbeing control measure. Report all word related Health illness to OHS focus and Govt. authority. This will serve to diminishing the danger of Occupational risks of concrete residue in the concrete business laborers (W H O .,2021).

All infection that made inside plant because of concrete residue, exhaust and gases, Noise should be researched and forestalling measure should be taken to keep away from comparable future sicknesses (Agins, H. J .et. al .,2011).

Use Enclosure, safeguard and boundary like gadgets for lessening clamor level and use Ear plug and goggle like PPE's is a strategies to shield ear and eye from such infections. (Jafferson, J. M., & Pattanashetti, S. 2021).

Risk should be distinguished in each interaction and functional movement and take sufficient control measure for limiting its level as low as sensible practicable to forestall word related wellbeing infections and Protect to climate. Peril is controlled through danger control technique that is known as order of hazards control measure (Wolpaw, J. R. et .al ., 2015)

To utilization of PPE's last thought of ordered progression of peril control strategy on the grounds that not wipe out to danger, it limit seriousness of mischief. The Limestone mining additionally need center around the accompanying to work on the Occupational Health and wellbeing compliances included .

- ❖ Initial and intermittent clinical assessment
- ❖ Training of clinical officials in Occupational wellbeing and cleanliness.
- ❖ Training of clinical officials for utilization of standard ILO chest radiographs for order of pneumoconiosis
- ❖ Hierarchy of controls for anticipation of Occupational illnesses
- ❖ Rehabilitation of impacted people
- ❖ Equipment and different game plans to safe watchman from word related sick (Paton, N. , 2016).

2.7. Psychological Hazards :

Actual perils have been the point of convergence for research on work related wellbeing and security for a really long time. Be that as it may, as of late accentuation has been put on mental risks. To start, a mental peril is any risk that influences the psychological prosperity or emotional wellness of the laborer by overpowering individual methods for dealing with especially difficult times and affecting the specialist's capacity to work in a sound and safe way. Mental risks in the work environment incorporate brutality/tormenting, weakness, innovative change, substance misuse, and age related factors (Chirico, F. et al ., 2019)

At the point when an individual is exhausted, they are bound to nod off hands on which can unfavorably influence one's capacity to think, convey really, perceive dangers, and simply decide. This outcomes in expanded mistakes and decreased usefulness in the work environment (Leka, S., Jain, A., & World Health Organization. , 2017).

Hence, exhaustion is viewed as a significant mental peril. It is significant, along these lines, that organizations initially recognize every one of the elements which could add to and increment the gamble of exhaustion in the work environment (Law, R. et al ., 2019) .

Such factors incorporate long working hours, performing dreary work, deficient rest, brutal ecological worries, and non-related work factors, for example, low quality of rest, family needs, and public activity. When the dangers are distinguished, managers should then make a suitable move to evaluate them appropriately. To survey these dangers, organizations ought to perform risk evaluations to conclude which perils should be tended to and in what the future held (Craig, B. N. , 2014).

The accompanying measures can be executed by managers for controlling exhaustion in the work environment:

- ❖ Bosses should initially play out a gamble appraisal to distinguish the current or likely dangers
- ❖ stages to evaluating gambles in the work environment. Source:
- ❖ Present work turn and break plans/programs to consider rest and enough recuperation time between work shifts for voyaging, supper breaks, and mingling.
- ❖ Organizations might give a solace space to representatives to unwind.
- ❖ Permit representatives to work from a distance or have adaptable working hours.
- ❖ Urge representatives to voice their viewpoints by revealing any worries namelessly that they might have comparable to work weakness.
- ❖ Give advising to weariness the executives on a balanced premise to their workers.
- ❖ Introduce ventilation and mechanical cooling gadgets in hot, restricted workplaces.
- ❖ Guarantee the work environment and environmental elements are sufficiently bright, free from any and all harm. A superior climate will mean expanded usefulness (Kaplan, S. , 2014).

The Viciousness in the working environment is a mental danger since it is brought about by dread and uneasiness of the attacker. Aside from carrying out stiffer punishments for the people who are brutal in the work environment, bosses can observe the underlying driver of the savagery by handling the issue independently and offering backing to the individuals

who might be casualties or aggressors. Furthermore, managers can carry out emergency signals, video reconnaissance, alert frameworks, and escorts to and from the working environment to assist manage or annihilate brutality in the working environment (Gray, G. M., & Ropeik, D. P. , 2016).

The maltreatment of unsafe substances or illicit medications can prompt Psychological Hazards at the work environment (Masi, F. , 2014).

The Substance maltreatment previously, during or subsequent to working hours can imperil the wellbeing and security of representatives as well as other associates. The maltreatment of these medications whether lawful or illicit can impede the appropriate working of somebody mentally (Belle, D., & Doucet, J. , 2018).

The powerlessness for a worker to work on an ordinary level builds the potential dangers that can be available at the work environment. The maltreatment of substances, both lawful and unlawful, can prompt mental dangers (Caroline, N. L. , 2017).

These include:

- ❖ Liquor - The maltreatment of brew for instance can slow the reflexes of a worker if he/she is to answer or keep a disaster from occurring at the working environment. (Vijendren, A., Yung, M., & Sanchez, J. ,2015).
- ❖ The utilization of weed can disable a specialist's memory if he/she utilizes it previously or potentially during working hours. This memory impedance can make the laborer fail to remember how to utilize a machine, gear, or play out an interaction appropriately. This can truly hurt the wellbeing and security of the representative as well as others laborers. Palmier-Claus, J. E. et al ., 2011).

- ❖ Psychedelic drugs - Phencyclidine (PCP) otherwise called Angel Dust, whenever ingested, infused, grunted or smoked by a specialist previously or during working hours can make him/her scatterbrained which can prompt lethal episodes or mishaps in a modern foundation. (Rappolt, R. T., Gay, G. R., & David Farris, R. , 2018).
- ❖ Inhalants - From hydrocarbon inward breath, a representative chipping away at an oil rig for instance, can become mixed up which could bring about the worker falling on or between a machine or hardware where he/she can be genuinely harmed. (Nossa, R., Costa, J., Cacopardo, L., & Ahluwalia, A. , 2021).
- ❖ Narcotics - Employees affected by medications like Heroin for instance, can contract Hepatitis B or C from infusing this medication into their body. The Hepatitis illness can spread to different representatives by interacting with the contaminated individual's blood.(Koester, S., Glanz, J., & Barón, A. , 2015).
- ❖ Energizers - Cocaine, whenever utilized by representatives, can cause over movement which can bring about the ill-advised utilization of machines and hardware which will imperil the wellbeing and security of different laborers.(Hamid, A. , 2018).
- ❖ Laborers ought to be taught/directed about the risks of substance misuse. And Sanctions/punishments for people manhandling such substances anywhere nearby with work sum Intermittent medication tests ought to be directed. (Chokroverty, S. , 2016).

Wellbeing or mental danger might be lead to loosing of the work. Loss of work effectsly affects the individual, the family, and the local area. While the financial outcomes are all around perceived, the unfriendly wellbeing impacts of being jobless for expanded periods are less very much

perceived and tended to. Research shows that being jobless for extended timeframes is terrible for an individual's wellbeing (Pfefferbaum, B., & North, C. S. , 2020).

The more somebody spends away from work, the more outlandish they will at any point return. We have the information and abilities important to change work inability into work capacity (Deleuze, G. , 2017).

Work inability exists when a representative can't play out his/her standard work because of a medical issue. Medical issues that block people from are being working, including extreme agony, weakening injury or sickness and recuperation from medical procedure. In any case, there are likewise numerous ailments with which representatives could be working in the event that the right situation were set up. In these occurrences, work nonappearance isn't 'restoratively fundament (Bosk, C. L. , 2013).

Mistaken assumptions about work commitment to ailments should be adjusted through advancement and better availability of the proof base on work causation and word related the study of disease transmission. Both boss and worker play parts and obligations that should be accepted in this cycle. Individuals foster a feeling of themselves through friendly jobs and relations (Hayes, S. C. et al ., 2013) .

Work - which is regularly joined by a feeling of being a supplier at home and contributing in the work environment - can frame a significant piece of an individual's center character. This might be lost or decreased when an individual is missing from the labor force. Whenever individuals can never again satisfy what they consider to be the fundamental commitments of their connections they frequently feel that they are a weight on everyone around them and portray sensations of pointlessness and reliance on others (Fine, J. R. , 2016).

Overflow pressure is the justification for huge issues in made countries. A lot of this strain has been associated with work and business (Quinlan, M., 2017).

the last choice takes up a colossal piece of our lives. According to the European Agency for Safety and Health at Work.(Burke, R. J., 2018) , stress was the second most ordinary business related clinical issue in 2005, when it affected 22% of workers . The Agency predicts that the amount of people persevering through pressure related conditions caused or bothered by work is most likely going to augment. Factors like downsizing and yet again appropriating, the extending need for flexibility in limits and capacities, the growing number of brief arrangements, the creating position vulnerability, and defenseless harmony among genuine and fun exercises are constraining continuously outrageous solicitations on workers (Bevan, S., et. Al ., 2019).

which is inciting more noticeable tensions. Word related tension can transcend the workplace and moreover risk the general thriving of the worker. A colossal number of assessments interface word related strain to other clinical issues, for instance, external muscle issues (Joseph, J. (Ed.), 2016) .

cardiovascular sickness , apprehension and distress , burnout , and a resting problem . Stress also critically influences the affiliation's show, explicitly on creative mind , value , improvement , obligation , and drive . A significant part of the factors that make strain or stressors-are psycho-social in nature (Kupper, N., Denollet, J., Widdershoven, J., & Kop, W. J. , 2017).

Furthermore, it is all around recognized in the composing that people answer unmistakably to receptiveness to these components. Accordingly, stress-related aftereffects or ailments can move between individuals. As

such it is similarly basic to contemplate direction while focusing on pressure related issues (Strait, G. , 2019).

Women and men are introduced to different work areas and different kinds of solicitations and strains, regardless, when they work in a comparable region and calling. Men will undoubtedly have higher positions (Yamazaki, K., 2016).

Women (42% of the powerful people in the EU) will undoubtedly work low support than are men (32% of women say they work low upkeep, stood out from 7% of men), and various women work in low-paid, questionable positions, which impacts their working circumstances and in this manner the threats to which they are revealed (He, N., Zhao, J., & Archbold, C. A. ,2017).

Women furthermore will by and large remain in comparable work longer than men, so their receptiveness to any current risks is longer-persevering. Directing workers and their participation is a critical component in word related prosperity and security, but women will as a rule work in places where affiliation depiction is lower. Finally, women truly do by far most of the disregarded work in the home and truly zeroing in on youths and relatives, regardless, when they work day in and day out. This is on top of their consistently paid work and delivers extensively more strain, particularly when they can't in any capacity whatsoever oblige work and regular daily existence (He, N., Zhao, J., & Archbold, C. A. , 2017).

Different examinations focusing in on either stressors or their signs inspect the effect of direction on the levels of occupation strain in the workplace, yet the situation in the work space as discussed above seems to make it critical to foster the assessment. In the current audit we apply the JDCA model on an enormous illustration of workers to analyze whether individuals contrast essentially in their perspective on Demands, Control

and Support in the workplace and in what the future held the levels of occupation stress (Karasek, R. A., Triantis, K. P., & Chaudhry, S. S. , 2018).

To do this, the evident risk of encountering a sickness or having a setback in the workplace is used as a sign of occupation stress. We also break down whether the socio-section factors age and area of activity impact work pressure contrastingly in limit of the direction (Yanos, P. T., Roe, D., & Lysaker, P. H. , 2015).

With the transformation of the labor market, workplace social and psychological hazards have become the norm for workplace safety and health in Western industrialized countries. One of the themes of period monitoring. This study explores the investigation and monitoring systems of workplace psychosocial hazards in international and Taiwan, and compares the monitoring indicators (Tompa, E. et al .,2017) .

Check the monitoring system, and use the information published on its website and related academic papers or published reports as analysis materials. The choice of international system The basis is: there are public English information on the webpage, including the name of the survey monitoring, research design, survey objects, sample size, questions, etc. volume content, measurement method, survey time and frequency, etc. Results: The main monitoring indicators of the survey of social and psychological hazards in the workplace in various countries (Tompa, E. et al .,2017) .

The employment contract, salary status, job security, advancement opportunities and training, job control, workload, hours, rotation Shifts, night shift work, organizational justice, family and work conflicts, etc.; Taiwan's inclusion in monitoring indicators is relatively limited. It is suggested that the scope of investigation and monitoring of social

psychological hazards in the workplace in Taiwan can be enriched with the following aspects: In terms of employment status, it should be included in the contract category (Ahonen, E. Q., Benavides, F. G., & Benach, J. , 2017).

Type, salary status, employment security and other indicators and be precise; in terms of work content and characteristics, consider expanding the workload The measurement content, the type of overtime work and whether extra pay is also taken into consideration; in terms of workplace social and organizational characteristics .On the other hand, in addition to organizational justice, family and work conflicts, workplace violence, harassment, bullying, Ling et al (Taiwan Wei Zhi 2010; 29(6): 551-560)

As the labor market shifts, job stress Growing physical and mental health problems, social psychology in the workplace Hazards are getting more and more attention. Especially in recent years, workplace worries Depression, suicide, overwork-induced diseases and other incidents are frequently reported in the workplace. Psychological stress has become an urgent need for occupational health policies to face important subject. Executive Yuan Labor Committee Labor Safety and Security Three national surveys conducted by the Institute of Health Employers' occupational health survey (Stynen, D., Forrier, A., Sels, L., & De Witte, H. , 2015).

which has included workplace social psychology Hazards and workplace fatigue issues are included in monitoring. This study aims to Through international comparison, understand workplace social psychology in other countries (Lerman, S. E. et al . , 2018) .

The monitoring mechanism and indicator content of hazards, with a view to Workplace health surveys suggest improvements. According to the definition of (Veleva, V., & Ellenbecker, M. , 2016).

Popularity Epidemiological studies point out that workplace psychosocial hazards can lead to Many health risks, including cardiovascular disease, bone Muscle disease, mental illness, absence from work due to illness, etc (Serbin, L. A., & Karp, J. , 2014). .

The organizations or associations, working environment psychosocial perils are moreover have many adverse consequences, including expanded worker truancy, Diminished feeling of responsibility, expanded turnover, work execution and Decreased usefulness, expanded paces of word related mishaps and different mishaps, occurrences of tormenting or defacement, client grumblings, and so on Sound associations not just influence the physical and emotional wellness of laborers, yet additionally It can carry extensive financial misfortunes to the undertaking association, and it is likewise inconvenient on the social picture of the association (Karasek, R. , 2019). .

Regular surveys of general health issues are the Government Occupational Health important business of the sector; with the development of industrial patterns in advanced countries Transformation, workplace social and psychological hazards have also become workplace safety and security An important topic in health surveys; how to identify and monitor workplaces various psychosocial hazards, identifying high-risk groups (Breucker, G.,2016) .

Assess its health hazards and further develop appropriate prevention Intervention strategies and policy plans are also the work of Europe, America and Japan. It is a research topic that has received considerable attention in advanced countries. In Taiwan, physical and mental illnesses caused by work stress The issue has also attracted more and more social attention, but most of the controversial It still focuses on occupational disease identification and compensation. we recognize Therefore, the

prevention of health problems caused by work stress must be The cause of the disease is started, and the regular survey of social and psychological hazards in the workplace (Alberti, K. G. M. M., Zimmet, P., & Shaw, J. , 2017).

The Investigation and monitoring is an important mechanism to understand the cause of disease. Word related wellbeing was create from mono-disciplinary to multi-disciplinary and complete methodology that arrangements with individual's physical, mental and social wellbeing. The workplace might force positive or adverse effects on individual's wellbeing and the usefulness is affected by physical and mental of laborers well-being (Fatima and Pasha, 2017).

Organizations have focused on productivity for a really long time to guarantee their supportability, yet as of late, the accentuation has changed to incorporate working environment wellbeing and security as a determinant of an organization's intensity. For the accompanying reasons, organizations are turning out to be more inspired by wellbeing and security the board (Kahneman, D., & Krueger, A. B. , 2016).

The Meeting with representatives and their wellbeing and security delegates is a significant piece of lessening working environment wellbeing and dangers. Staff ought to be counseled and implied in the danger the board cycle to guarantee that wellbeing guidelines and suitable work rehearses are observed. Utilizing Representatives from the wellbeing and security local area should approach relevant data on issues that could affect the mending system (Borys, D. , 2019).

Conference with laborers and their wellbeing and security agents is a basic advance of overseeing work wellbeing and dangers. Talking with and implying laborers in the danger the executives cycle can help with guaranteeing that wellbeing guidelines and safe work rehearses are

followed Health and security delegates should approach important data on issues that can influence the wellbeing and security of laborers, for instance, risky synthetics register and information from observing airborne contaminants (Lingard, H. , 2019).

2.8. Mechanical hazard:

Concrete enterprises assuming fundamental part to advancement of nation and set out work open doors and this is known as sure effects. Safe work environment in concrete enterprises assumes imperative part to forestall work related wellbeing sicknesses and expanding business open doors. Various contaminations, for example, Particulate matter, Sulfur oxide, nitrogen oxygen produces and reason for ecological corruption and medical affliction and it is known as adverse consequences (Lehne, J., & Preston, F. , 2018).

The assembling units of a concrete processing plant, for example, crude factory, Preheater, oven, coal plant, concrete plant stockpiling storehouse and pressing segment are point wellsprings of contamination emanation. The concrete area is the third biggest modern wellspring of contamination, producing of sulfur dioxide, nitrogen oxide, and carbon monoxide and it impact to climate and strength of individuals (Mohamad, N. et al ., 2021) .

The Open of concrete residue can foster lungs disease, pneumoconiosis, respiratory framework harm, skin disturbance, dermatitis, skin consume, conjunctivitis, migraine, exhaustion, eye injury just as stomach and colon issue (WHO . , 2017).

As per studies announced concerning oral cavity , the generally detailed sicknesses in specialists are aggravation of gums (gum disease), dental caries, math and pockets development, loss of surface area of teeth

and furthermore periodontal infections. This rely upon span of openness of residue. Eye additionally affected when concrete residue particles enters in eye. Poisons created from concrete assembling businesses additionally impact to structure, Tree and creatures. Aside from this Noise created from concrete businesses and openness past allowable breaking point additionally impact to our hearing framework(WHO ., 2019)

2.9. Electric hazard

Electrical Hazards Is motive power and one of the most significant means of the makes work easy and smooth, but society, it affects the lives of workers in the work environment as a result of dealing with it the machines that work on it and most people neglect messages Security and safety Occupational safety (Sommerich, C. M. et al .,2018) .

The instructions and duties that workers must follow at work or when using so we will address examples of the factors causing electrical hazards during work in cement factories Electrical accidents and their causes Faulty electrical installations that do not conform to specifications in laboratories or commercial and industrial facilities and electrical fortunes, as this leads to material and human losses for workers in those industrial facilities during the operations of use and operation (Ropeik, D., & Gray, G. M. , 2016).

The Injuries and the obligations of occupational safety instructions while performing their work The age that negatively affects the life of the worker is vulnerable and there are some common mistakes that caused accidents and injuries One of the most important risks is neglecting the periodic maintenance work, first, not conducting the periodic inspection and testing of the electrical lanes that the worker is in direct contact with, not maintaining damaged equipment (Costa, G. , 2019).

As well as not replacing the means of cutting and connecting protection when noticing a spark from them during their work, and not reviewing the electrical loads and making sure of the Their suitability for the circuit breakers and wires that perform their duties towards that machine. On the other hand, those reasons we mentioned lead to a negative impact on the worker's life in his environment (Siu, O. L., Phillips, D. R., & Leung, T. W. , 2018).

2.10. Strategies of prevention of occupational health hazard.

strategies of occupational health :

The concept of strategies in the field of injury prevention with regard to (OHS) conducted with protection of work from injuries is positive to deal with and apply them in a proper manner in order to increase (OHS) indicators in the industrial facility in order to reduce the level of risk to workers' lives (Gravel, S., Rhéaume, J., & Legendre, G. , 2019).

But with found in canters was that current situation or trends are still influential and negative, but it is expected that there will be regulation and a positive, orderly development of actions that increase the development of the necessary concept and infrastructure of the industrial establishment to make the concepts and trends more positive that can be obtained. And all countries that show coordinated and gradual progress and development in the field of occupational health and safety in the field of services and therefore aim to cover all workers with those services, regardless of the economic situation, the size of the profession, how they work or the nature of dealing with them (Meswani, H. R. , 2018).

The work environment is considered dangerous. Because occupational health and safety there are two common risks in many economic industrial sectors, which in turn affect the lives of large numbers of workers, about 30

to 50% of workers, for physical, chemical and biological risks, as well as psychological risks to which they are exposed in addition to the overload of physical work. Hard and in a large amount exposed to it. (Lieberman, H. R. , 2019).

during work and in an unreasonable, acceptable or comfortable way, and the factors that are, by the nature of dealing with them, are dangerous to the health of workers and their ability to work is approximately equal. dangerous. About 120 million work accidents with approximately 2,000,000 deaths annually resulting from exposure to these health hazard (Verbeek, J. , 2019).

Work incapacity is a significant individual, monetary and general wellbeing trouble. Yearly usefulness misfortunes from missed business days because of low back torment (LBP) are gauge at \$28 billion in the United States alone and LBP is presently the main source of inability, influencing almost 600 million individuals around the world. Notwithstanding outer muscle problems (MSKDs), handicap from cardiovascular sickness, malignant growth survivorship and psychological well-being messes are additionally expanding (Levesque . et al ., 2012) .

The development of control strategies for occupational hazards takes place at two levels: the societal level and workplace level. The information needs for these two levels can be quite different although there is some overlap. At the societal level, the control measures are usually through regulatory action. Regulatory action first requires strong scientific evidence that a harmful effect is caused by a particular workplace agent. Information is then needed on possible exposure effect relationships as well as a number of workplace demographics. At the workplace level information is needed on the nature of the hazard,

where it is likely to be encountered, and the available options for risk reduction. Scientific evidence (WHO., 2019)

Can vary in terms of its nature, quantity, and strength and there is no fixed yardstick for what is required for regulatory and other actions because there are also many additional factors which may impede the decision on the necessity of control and the degree required.

Scientific evidence may derive from toxicological and epidemiological studies. Toxicological studies on animals can provide information on causal agents and give some indication of possible dose-response relationships for risk assessment purposes. In addition they can provide information on entry, distribution, metabolism, and excretion pathways for toxic substances, useful in establishing biological monitoring methods for assessment of exposure to toxicants and relating health effects to internal dose. Epidemiology on the other hand provides information directly on the effects of chemicals and other agents on humans. It can sometimes give an indication of exposure-response relation and this is extremely important evidence when regulatory action is being considered. Supplementary evidence may be obtained from surveillance programmes, including hazard surveillance, exposure measurement, and medical surveillance. (Alberti, K. G. M. M., Zimmet, P., & Shaw, J., 2017).

These programmes, especially when used together, are important in the recognition of the need for controls and the assessment of their effectiveness and, as such, are usually considered components of a control strategy. However, on occasion, as in the case of vinyl chloride for example, they can provide the initial alert to potential harm. Medical surveillance programmes allow occupational physicians and nurses to recognise recurring patterns of illness in certain groups of

employees. Such observations may lead to direct recognition of a new hazard, provide impetus for research, or recognise the adequacy or otherwise of any implemented controls. Hazard surveillance and measurement of workplace exposures produce, in a systematic way, documented evidence of existing workplace conditions, providing information on potentially hazardous situations, the adequacy of any existing controls, or the need to introduce controls where none exist.¹ It can also provide exposure information which is useful in the investigation of exposure-response relationships (Kahneman, D., & Krueger, A. B., 2016).

In addition anecdotal data may come from the plant physician in the form of isolated clinical cases or from worker health and safety representatives and trade union officials who are often the recipients of persistent health complaints by workers. The collection and organisation of such information may produce evidence of workplace conditions in need of assessment and possible control (Maccabee, et al., 2014).

With more individuals living with many kinds of ongoing ailments now than any time in recent memory, the issue of work inability will keep on raising in the event that we don't make a move Return to work (RTW) is a significant mark of certifiable working; consequently, anticipating future work achievement is a significant focal point of examination, Individuals incapable and the because of a physical issue or disease can encounter more prominent actual infirmities, as well as more unfortunate psychosocial change (Rowland, C. et al., 2019).

2.11. Administration.

Latest thing shows that associations began focusing on hierarchical and organization influences security execution especially the capacity of

wellbeing and security organization, The interest in wellbeing and wellbeing organization is because of serious fiascos that featured the downfalls of organization to safeguard the wellbeing and security of their laborers and along these lines, to conform to Occupational Health and Safety Act as to satisfy their obligations as a business to guarantee that specialists have a protected work-place (Nur Shuhada, M. J. , 2018).

Successful gamble the board relies halfway upon the conduct of people in an association, A critical number of mishaps could be follow to risky practices, Poorly planned gear or tasks, unfortunate frameworks and unfortunate working circumstances can all support perilous practices, however these practices are not inescapable, An association's mentalities and values in regards to safe working are significant variables that impact its way to deal with work and at last its wellbeing and security execution, (Woodring, M. , 2015).

High-danger, high-risk ventures request consideration regarding wellbeing to succeed. More noteworthy consciousness of specialist wellbeing and medical problems matched with the development of coordinated work in the mid 20th century, During the 1980s and 1990s, distributed investigations caused to notice laborer security issues inside the medical services industry; notwithstanding, numerous word related gambles had be known for centuries (Bond, P. , 2014).

The Sound specialists are less inclined to be harmed and assuming harmed can return to work all the more effectively, That cooperative relationship should be energized and advanced in work environments across the area as steady with and reciprocal to the common wellbeing systems, the Mental Health and Addictions Strategy and Thrive as well as other security related drives, for example, the Road Safety Action Plan(Crawford, E. R.et al ., 2016) .

Work is underway to moreover modernize and enhance the prosperity and security system, to work with the load on business and engage advancement through ensuring the prosperity and security structure enables supervisors to make sensible and proportionate decisions about administering genuine workplace risks, The prosperity and security at work program act clearly puts obligation on individuals who take the risk to direct it, This applies whether the bet maker is a business, freely utilized or a producer or supplier of articles or substances for use at work. Anything the corporate status, each opportunity maker has an extent of commitments that ought to be executed to manage the gamble (Yoon et al., 2013)

2.12. Previous studies.

This piece of the section manages the past investigations regarding the matter of executive's view of security measures. How much advantage from these investigations has been survey from nearby examinations, adjoining nations, and worldwide examinations (Maccabee. Et al ., 2014).

A developing collection of companion inspected examinations exhibits the significance of wellbeing insight in medical care security improvement, however little consideration has zeroed in on fostering a typical arrangement of definitions, aspects and measures (Johnson, C. R. et al ., 2017) .

One more review led to comprehend the impact of the workplace and wellbeing on worker execution in open area associations is the Workplace Environment and its Impact on Organizational Performance in Public Sector Organizations. Besides, an endeavor has been made to characterize the persuading factors for accomplishing the objective (Cancellor ., 2016) .The executives' Perceptions of the word related wellbeing and security framework) is another review centers around assessing the board's impression of the word related wellbeing and security framework. It

researches how the executives see their job as administrators, how the board decipher and institutes their job as supervisors and what this thus means for work related wellbeing and security in the work environment. The executives ought to be adding to the improvement of working environment (Cloutier, O., 2015).

First study

(BB et al., 2020) considered in Assessment of Health Status and QOL of the Women's working in Garment Factory in Tumkur. Objective of epidemiological appraisal of work related mishaps in Iran. Technique for this remedial review, orientation, age, monetary action, kind of mishap and harmed body part in 22158 enlisted mishaps during 200 were portrayed. Results Electrical the work related mishaps rate was 25 in 100,000 specialists in 2008. 98.2% of harmed laborers were men. End Due to the high pace of mishaps in metal and development enterprises, designing controls, the in appropriated defensive hardware and security specialist preparing appears to be vital.

Second study.

(Ahad, et al., 2021) Examined of in South and Southeast Asian spotlight on readymade piece of clothing (RMG) laborers' wellbeing weaknesses. Objective: is to distinguish the unmistakable sorts of wellbeing weaknesses alongside the causes. Strategy: of Literature distributed on wellbeing weaknesses of the RMG of South and Southeast Asian nations were distinguished through electronic information bases. Results: the discoveries announced recommend that RMG laborers of South and South Asian nations are inclined to weaknesses which incorporate physical and mental issues. End: recommends that laborers' weaknesses are an arising area of request that necessities to more readily comprehend and arrangements recognized

Third study.

(Jaiswal , 2021)researched Across-sectional review on modern wellbeing dangers among article of clothing plants laborers of Tamil. Objective: This study investigates variables and framework challenges that make boundaries guaranteeing a solid and safe work environment in the instant article of clothing. Technique: Data were gathered through key witness interviews (n = 14) with government authorities from the Department of Inspection for Factories an Establishments. Results: There is a lack of fittingly prepared staff gear screen on laborers' wellbeing and security issues. End: framework limit should be improved by both expanding HR for in-manufacturing plant risks or and further developed preparing of authorities around checking and detailing. -

Chapter Three

Methodology

Methodology

This chapter presents the methods that are used to perform to their phenomena of occupational health related hazard as the fallowing design of study; agreement of study; tools of study; setting of study; scoring of study; validity and Reliability of study; pilot study and limitation of study.

3.1. study design :

the descriptive design / cross sectional study wear conducted with an analytical utility in order to achieve the stated objectives in terms of assessing the risks to which workers are exposed at work and how to implement prevention strategies. During the period from 9\3\ 2021-20\4\2022.

3.2. Ethical and Administrative Agreement.

- 1- A research protocol approved by the Community Health Branch, as well as obtaining approval or official permission from the College of Nursing, University of Babylon, to conduct the study
- 2- The title and the questionnaire regarding risks and the importance of prevention strategies and questionnaire were evaluated to the Ethics Committee formed in the College of Nursing, which in turn reviewed the tools and axes of the study (occupational risks and questionnaire) and therefore agreed to conduct the official study submitted in 2021
- 3- Obtaining official approval from the Kufa Cement Factory and Najaf Cement Factory, as well as the Stone Crushers Department in the Najaf Governorate.
- 4- The last step that was arranged administratively, which is the issuance of an official letter through which it was approved to conduct the study in

those government laboratories in Najaf to facilitate cooperation with the researcher and complete his message

5- The approval of the heads of the departments and units affiliated with the laboratories was also obtained. The form was explained and the goals were clarified, in order to serve the interests of the workers to identify those risks. A delegation was made clear that the information should be confidential and for research purposes.

3.3. Setting of the study:

The present study was conducted in three governmental places where cement is made in Najaf governorate, namely the Najaf cement factory and the Kufa cement factory, as well as the crushers department, which in turn relates to stone production for both factories). The study included cement factories only with the study causes they contain wholly the risks required in the research study concerning hazards and prevention strategies for those hazards that workers are exposed to within the work environment.

Najaf Cement Factory. Factory name Najaf Cement Factory: It is one of the factories affiliated to the Iraqi Ministry of Industry and is classified within the Southern Cement Industry Company Location Najaf Governorate / Kufa District / Al-Barakia Production Type Ordinary Portland cement Number of production lines Design capacity (156000) tons per year Establishment date 1975 Production start 1975 Executing company Indian ACC Manufacturing method humid.

Al-Kufa Cement Factory, which is one of the factories affiliated with the Southern Cement Company, which in turn is affiliated with the Iraqi Ministry of Industry, which is located in the Najaf Governorate \ Kufa District \ Al Barakiah. Which produces the quality of ordinary Portland cement, which consists of 4 production lines, which produce about

(2,000,000) tons annually, which was established in 1977 and production began in 1984. The executing company was F.L.S. Danish

3.4. Study of the sample:

By utilizing non-probability testing strategy a (purposive example) of 200 specialists have been chosen out of 1000 laborers chipping away at transportation standards or the internal system in the factories intended for the study and the hazards they are exposed to in those factories and according to the following sections (Management Department - Putty Mills Department - Furnaces Department, which in turn consists of 5 thermal furnaces - Department Packaging - production department - maintenance department - mechanics department - production department, as well as the rest of the departments of cement factories .All sections were covered during the stage of collecting the research sample to obtain the aims of study phenomena (strategies of prevention occupational health related hazard among workers.

3.5. Inclusion Criteria:

3.5.1. Workers who are exposed to all risks in the work environment and factories departments and how they are exposed to those hazards and how to deal with or avoid them through the application of safety and occupational hazards and safety standards .

3.5.2. Workers of morning shift and night shifting were included in the study.

3.6. Exclusion Criteria:

3.6.1. Office workers were excluded.

3.6.2. Outside truck drivers were excluded.

3.6.3. Daily wage workers were excluded because they did not continue to work and thus would not be permanently exposed to the hazards that occur within the work environment.

3.7. Instrument:

The survey was applied as a mean of information assortment that was contained three principle parts, the initial segment included socio-department normal for members while the subsequent part was sub-partitioned into four segments (wounds at work, clinical history, evaluation of workplace and utilizing of individual defensive measures . assessment of Strategies of prevention of occupational health hazard (places are available within the facility, The facility shall meet the following health requirements, working conditions inside the facility are suitable for work , exposed, while performing your work, Availability of the peace factor in the machines, tools and tools used in the work , The emergency fund and its supervision inside the facility , The role of management in promoting and applying the concept of industrial security).

3.7.1 Part One Socio-Demographic Data:

This part consists of (11) items that show the worker socio- segment information (Ag, Male Female, . married status, Married Single, Divorced , widow, Number of years in assistance , Monthly Income , Enough , Fairly Enough , Not Enough , Resident , Urban Rural ,. Job Title: Worker , Chief Workers , Observer Technician , Chief Observers Technician ,Assistant Engineer , Engineer , Chief Engineer , Educational level , doesn't read and write , read and write , Elementary , secondary preparatory Institute , graduate Bachelor , Higher Education , Department , Working Hours , work shift)

3.7.2. Part Two:

3.7.2.1. Injuries at Work:

This part includes (8) items which were concerned with the possible injuries that workers will be exposed to.

3.7.2.2 Health problems :

In detail, medical history included (10) questions as follows: The worker's medical history, Have you been absent from work due to illness, Did you leave work because of a disability, Have you stopped working due to a chronic illness, Have you stopped working due to previous surgery, Do you take any medication, treatment or physical therapy, Have you had any skin disease (eczema or allergy), Have you had any breathing problems (asthma, tuberculosis or persistent cough) in the past year, Have you stopped working because of an infectious disease, Have you had a major injury: maybe exposure of worker at work.

3.7.2.3. Occupational hazards during the work

This sub-division included assessment of occupational health related hazards among workers, these items were gathered in four domains according to the type of hazard as follows, physical, natural, chemical, psychosocial hazards, biological hazards, Mechanical hazard, Electric hazard, Strategies of prevention of occupational health hazard, Strategies of the peace factor in the machines, tools and tools used in the work, The emergency fund and its supervision inside the facility and The role of management in promoting and applying the concept of industrial security.

Part Two: Healthcare Facilities:**Health services provided to the worker in the work environment:**

This domain is made out of (9) things which manage the appraisal of work related factors (peril) during the work, for example, (Have you had a regular health check-up (monthly, bi-monthly, weekly) , Is there a permanent presence of the doctor or nurse inside the laboratory: , Have you ever used a cure for your chronic diseases , Have you taken maternity leave (for women) , Do you have health insurance , Have you ever received viral hepatitis vaccines , Is there a health care center within the workplace , Is there a first aid kit in the workplace , Is there a place for eating .

Part Three:**1-Health hazards to workers in the work environment :**

This domain consists from (11) evaluation Health hazards to workers in the work environment at work . Such as (Is there noise in the workplace , Is the level of illumination appropriate , Is the work environment clean , Is there excessive heat in the working environment , Is ventilation adequate , Are there emergency exits , Is there good ventilation in the work environment , Are there safety limits according to the competent authorities? Have you been exposed to heat stress , Are there changes in atmospheric pressure in the working environment , Have you been exposed to a fire while working , Have you been exposed to harmful and dangerous radiation while working) .

2-Chemical hazard :

This space is made out of (8) things which manages the evaluation of substance factors at workplace .like (Have you been exposed to dust , Have you been exposed to toxins , Has the dust been inhaled , Have you

been exposed to dangerous chemicals (dust, fumes, gases or smoke) , Have you suffered from respiratory allergies , Have you ever had a skin allergy , Are there warning signs in the work environment , Are there units of measurement for the chemical pollution environment).

3-Biological hazards :

This domain is composed of (9) items which deals with the assessment of biological hazards at work environment . like (A Have you had a needle related injury , Have you been injured at work , I slipped while working , Did you suffer from burns while working , Have you suffered from malnutrition , Have you been exposed to infectious diseases (bacteria, viruses, infectious diseases) , Have you had a respiratory infection , Have you had a respiratory infection , Have you been exposed to tuberculosis , Have you had a viral fever) .

3.7.2.4: psychological hazards:

This domain is made out of (10) things which manage the evaluation of mental dangers at workplace .such as (Have you been under stress at work , Have you experienced psychological problems while working , Were the workers treated in the same way during work , Have you experienced stress at work , Have you found inequality in the work environment , Have you experienced stress as a result of work , Have you had bone problems or muscle problems , Have you been addicted to alcohol or drugs , Did you find an increase in work productivity, Did you find a decrease in your work productivity) .

3.7.2.5: mechanical hazards :

This domain is contain of (6) the deal with the assessment of mechanical hazards at .such as (Are there special procedures for

machines , Have you been exposed to the dangers of machinery and mechanical equipment , Are you exposed to hand tools while working , Have you been exposed to the dangers of transportation equipment and ,Are stairs safe in the work environment , Do you use a seat belt while working at height) .

3.7.2.6: electrical hazard while working:

This domain is contain of the (6) the deal with the assessment of electrical hazards in the environment workplace .such as (Have you been exposed to electric shocks while working , Is there personal equipment while working near electrical sites , Are there sources of energy and we put the signs of knowledge on them) .

3.7.3.1: Occupational Health hazards Prevention Strategies :

While doing your work, you must be to the following safety equipment according to the nature of the work:

This domain is composed of (9) Health hazards Prevention Strategies at work environment .such as (Helmet or headgear , Eye goggles , face mask , Earplugs , Safety belts , hand gloves , Safety shoes , Masks , Protective clothing) .

3.7.3.2: The following places are available within the facility (work environment).

This domain is contain with the (6) and places are available within the facility (work environment) such as A place or lounge to eat , A place to change clothes , Bathrooms that meet the health requirements , Male and female pools , A place to shower if the nature of work requires it , Medical clinic.

3.7.3.3: the facility have the following health requirements:

This domain is contain the (4) to evaluating of the facility of the health such as (Drinking water , Winter heating devices , Coolers in summer , Garbage bins for waste collection) .

3.7.3.4: The working conditions are suitable for working within the factories:

This domain is contain the (6) to evaluating of the of working conditions are suitable for working within the factories such as (Natural lighting , Industrial lighting , Ventilation , Temperature , Humidity degree , Hygiene , Rest period) .

3.7.3.5: Problems exposure by the worker during the applies of your work due to working conditions:

This domain is composed of (5) items which deal with the assessment of Problems exposure by the worker during the applies of your work due to working conditions at work environment such as (effect of Noise , Dust , smoke , Gases such as carbon dioxide and Radiation (such as the light emitted from the welding process) .

3.7.3.6: Strategies that provide the occupational health to be available in the machines, tools and tools used at work:

This domain is composed from (8) items to deals with the assessment of Strategies that provide the occupational health to be available in the machines, tools and tools used at work such as (The machines available inside the work are designed in a way that ensures the safety of workers

The machines are worked inside the office by trained professionals or under their watch , There is sufficient room around the endlessly machines

to permit laborers to go through and not to obstruct their work , The machines stopped and the power was cut off when they were maintained , The machines used are fireproof , There are guidance panels beside the machines in the workplace to guide workers to the correct way of working , The tools and tools used in the work are durable and free from defects and Staff were instructed and trained in the use and maintenance and reworks .

3.7.3.7: The emergency box fund and its supervision within the factories:

This domain is composed from (5) items to deals with the assessment of The emergency box in factories such as (The appropriate number of ambulance boxes is available inside the facility , The ambulance box(s) are located in easily accessible places , Availability of the necessary materials and medicines inside the emergency fund , Responsibility for supervising the ambulance box is borne by a person within the facility who is familiar with how materials and medicines are use and The presence of the emergency fund supervisor during working hours) .

3.7.3.8: The strategies followed by the administration in promoting and applying the concept of industrial security:

This domain is composed from (8) items to deals with the assessment of The strategies followed by the administration and concept of industrial security such as (The management shall make adequate efforts to ensure the health and safety of employees , The administration conducts initial medical examinations (before employment) for the employee , The management conducts periodic medical examinations (every period of time) for the employees , The department supplies brochures and brochures related to industrial security , The management always provides the necessary safety equipment for work , Management responds to employee

suggestions regarding safety and security at work , The administration holds training courses for security and safety at work and The management educates the employees about the nature of the materials used) .

The scoring system used to assess the hazard for each item of the domains was score (2) if the worker exposed the hazard answer yes and the score of (1) is not exposed to hazard. the higher score indicated and the higher score rate as fallow .The mean was calculated according to the response of the participant of each items and domain . The hazard determined by the division of the amount of score on the absolute scoring for every area.

3.8. Method of Data Collection:

The data was collected through the use of a set of tools (the Arabic questionnaire for the purpose of collection), which in turn leads to the collection of information about risks. It took a maximum of 25 minutes to complete all information, which in turn included (social and demographic data, current and past medical history of the worker, physical or physical risks to which the worker is exposed, chemical risks, biological risks, mechanical risks, electrical risks, psychological risks and their effects, As for the second section, it is about the prevention strategies used for these risks in terms of protection methods and how to apply them From the 6 April 26 August 2021 .

With regard to the method of sample collection, there were several ways to reach the level of accuracy and validity of collecting the information recorded in a previously mentioned questionnaire, which is that the worker is interviewed and identified, and then explained the content of the form in detail to the worker and clarified the importance of

The answer to ensure the quality of the information before starting to answer those The questions and also the risks and prevention strategies were scientifically explained to the worker to determine the importance and accuracy of the study

3.9. Validity of the instruments

The validity study is based on the distribution of application form or questionnaire to look to a group of (experts and specialists in the field and statisticians and took into account all the edits and then tabled their names in the proposed application form and research pertaining to the study. Amendment of (The amendments were very realistic and appropriate and close to the content of the questionnaire,

[2] Expert from Nursing Faculty / Baghdad University.

[3] Expert from Nursing Faculty / Kufa University.

[3] Expert from Nursing Faculty / Babylon University.

[1] Expert from Nursing Faculty / University of Al-Ameed.

[1] Expert from Nursing Faculty / University of Warith Alanbiyaa.

[1] Expert from College of / Slaymaniya University

Appendix (C) :

Present the panel of experts with their specialties and years of experience. The questionnaire and the program are submitted to each one of the experts. After review and evaluation by the experts, reveal that the instrument has adequate content and changes have been done to many items according to their suggestions. In addition, some scale items are modified and some of items are removed from the scale. Also, some

changes and modification to the program done according to the experts' comments and correction, to be acceptable, useful and comprehensive content.

3.10. Pilot of study:

This study was led on 35 workers from the processing plants, concrete specialists, who have driven their avoidance from the example assortment and examination were remunerated laborers and others, the period is from February 10 to February 22 was the Interest of which are the following: Knowledge of the time required to clarify the appropriateness of the form and factor.

Experience of how to deal with workers in research to clarify the meanings of the form and presentation of information.

3.11. Reliability of Questionnaire:

The unwavering quality of the survey in the current review the inward consistency has taken on has been assessed by Cronbach's alpha coefficients which is shown in the table below.

Table (3.1): reliability of the current study.

Alpha Chronbach	Accepted of value	No-of items	Evaluation
0.87	0.70	112	Bass

3.12. Rating and scoring:

The health Hazard part of the study instrument consist of Six domains with two responses one yes and two no responses the yes response was coded with (2) point and the no response coded with (1) point. For all

health Hazard scale range was calculated and divided by 4 (required health Hazard categorize: (equal and less than 1) = (No Hazard) and Hazard rate (less than 1.5) = (Low Hazard) and Hazard rate (1.5) = (Moderate Hazard) and Hazard rate (More than 1.5) = (High Hazard), and thus the cut off point (1.5).

The Strategies of Prevention part of the study instrument consist of eight domains with two responses one yes and two no responses the yes response was coded with (2) point and the no response coded with (1) point. For all Strategies of Prevention scale range was calculated and divided by 4 (required Strategies of Prevention categorize: (equal and less than 1) = (Uncommitted) and Strategies of Prevention (less than 1.5) = (Little Commitment) and Strategies of Prevention rate (1.5) = (Moderate Commitment) and Strategies of Prevention rate (More than 1.5) = (High Commitment), and thus the cutoff point (1.5).

3.13. Statistical Analysis:

Approach has been taken in the statistical analysis of the data through a statistical package of Social Sciences program is (Spss) program and was issuing (22) for the year 2019 .

3.13.1. Evaluation of data analysis:

1. Percentages, tables and frequencies.
- 2- Introduce illustrations ratios.
- 3- Use charts to support and understand the results of research.
- 4- Pearson correlation coefficients.

Chapter Four

Results

4. Results of the study

This chapter describes the demographic and clinical characteristics of the participants and determines the significant differences in the Strategies of prevention health care related occupational health hazards regarding all clinical and socio-demographic variables of cement workers.

Table (4.1) clarify of the Workers by their Socio-Demographic characters' concluded Frequency & Percentage

No.	Variables	Groups	(n = 200)	
			F.	%
1.	Age	- (Less than 18) years	2	1.0
		- (18-35) years	70	35.0
		- (More than 35) years	128	64.0
		Total	200	100
2.	Residency Area	- Urban	173	86.5
		- Rural	27	13.5
		Total	200	100.0
3.	Level of Education	Illiterate	3	1.5
		Literate (read & write)	12	6.0
		Graduate of Primary School	28	14.0
		Graduate of Intermediate/Secondary School	52	26.0
		Graduate of Institute/ College	15	7.5
		Graduate of Institute/ High Education	90	45.0
		Total	200	100.0
4.	Monthly Income	- Sufficient	76	38.0
		- Barely sufficient	39	19.5
		- Insufficient	85	42.5
		Total	200	100.0

5.	Gender	Male	188	94.0
		Female	12	6.0
		Total	200	100.0
6.	Marital Status	- Married	149	74.5
		- Single	7	3.5
		- Divorced	12	6.0
		- Widow	32	16.0
		Total	200	100.0
7.	Number of years in service	Less Than 1 Year	20	10.0
		(1-5) Years	27	13.5
		More Than 5 Years	153	76.5
		Total	200	100.0
8.	Job Title	Worker	41	20.5
		Chief Workers	28	14.0
		Observer Technician	29	14.5
		Chief Observers Technician	34	17.0
		Assistant Engineer	9	4.5
		Engineer	29	14.5
		Chief Engineer	30	15.0
		Total	200	100.0
9.	Level of Education	Illiterate	3	1.5
		Literate (read & write)	12	6.0
		Graduate of Primary School	28	14.0
		Graduate of Intermediate/Secondary School	52	26.0
		Graduate of Institute/College	15	7.5
		Graduate of High Education	90	45.0
		Total	200	100.0
		10.	Workplace	Malls
security clearances	3			1.5

		Queries	3	1.5
		Crushers	21	10.5
		Ovens	15	7.5
		The mills	26	13.0
		Administration	5	2.5
		Awareness	14	7.0
		Guidance	7	3.5
		Technical Section	5	2.5
		Quality Section	2	1.0
		Mechanical Section	5	2.5
		Total	200	100.0
11.	Shift Working Hours/day	Less Than 6 Hours	10	5.0
		(6-8) Hours	187	93.5
		More Than 8 Hours	3	1.5
		Total	200	100.0
12.	Shift of work	Morning Shift	169	84.5
		Night Shift	31	15.5
		Total	200	100.0

The table (4.1) summarizes the occupational characteristics of the study participants, the higher proportion of the study participants of the Cement Workers percentage were (64%) and numbers (128) were (more than 35) years old whereas the minority of them (1 %) were (less than 18) years old and the residence area indicates that the majority of the Cement Workers percentage (86.5%) and numbers (173) were (urban) whereas the minority of them (13.5%) were (rural). The monthly income variable reveals that the majority of the Cement Workers percentage (42.5%) and numbers (85) were (Insufficient) whereas the minority of them (19.5%) were (Barely Insufficient). The marital status shows that the majority of the Cement Workers percentage (74.5%) and numbers (149) were (single) whereas the minority of them (7%) were (married), and also the level of

educational present that the majority of the Cement Workers percentage (45%) were (Graduate of Institute/ High Education) whereas the minority of them (1.5%) were (illiterate).

In addition, the gender of workers reveals that the majority of the Cement Workers percentage (94%) were (male) whereas the minority of them (6%) were (female), and the number of years of service presents that the majority of the Cement Workers percentage (76.5%) were (More Than 5 Years) whereas the minority of them (10%) were (less Than 1 Year), and the title of job presents that the majority of the Cement Workers percentage (20%) were (workers) whereas the minority of them (5%) were (assistant engineer), and the numbers of work hours presents that the majority of the Cement Workers percentage (93.5%) were (6-8) hours whereas the minority of them (5%) were (less than 6 hours).

Also Regarding the workplace of workers shows that the majority of the Cement Workers percentage (47%) were (malls section) whereas the minority of them (1%) were (quality section), and the shift of work shows that the majority of the Cement Workers percentage (84%) were (morning shift) whereas the minority of them (16%) were (night shift).

4. 1. 2 Health problems Characteristics of Workers

Table (4.2) distributed of Workers through Medical History through F&P.

No.	Variables	Groups	(n = 200)	
			F.	%
1.	Did you Absenteeism due to sickness	Yes	127	63.5
		No	73	36.5
2.	Did you leave the work due to a	Yes	172	86.0

	handicap	No	28	14.0
3.	Did you eliminate from work due to chronic disease	Yes	169	84.5
		No	31	15.5
4.	Did you stop from work due to previous surgical operation	Yes	146	73.0
		No	54	27.0
5.	Do you intake any Medicine or Treatment or Physical therapy:	Yes	123	61.5
		No	77	38.5
6.	Did you had any skin disease (eczema or allergy):	Yes	139	69.5
		No	61	30.5
7.	Did you have any breathing issues (asthma, tuberculosis or continuous cough) in the last year	Yes	143	71.5
		No	57	28.5
8.	Did you eliminate from work due to infectious disease	Yes	154	77.0
		No	46	23.0
9.	Is there a place designated for eating	Yes	169	84.5
		No	31	15.5

Current tables uncovers considering mean of scores 1.5 that the subjects reactions in regards to the Medical History things are great at (5) things method for scores ≥ 1.5 . The subjects responses were poor at (1, 2, 3, 4, 6, 7, 8, and 9) items means of scores ≤ 1.5 conclusive medical history of cement factories .

Table (4.3) Overall of the Health problems Workers at Cement Government Factory

Ratings	(n= 200)			
	F.	%	M.S.	Assessment
No Hazard	170	85.0	1.2544	Good

High Hazard	30	15.0		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Medical History (85 %) was poor of health and minority of them (15 %) were good.

Part 2: Health Care Facilities:

Table (4.4) Distribution of the Workers by their Health Care Facilities through Frequency and Percentage

No.	Variables	Groups	(n = 200)	
			F.	%
1.	Did you do a regular health checkup (monthly, bi-monthly, weekly)	Yes	115	57.5
		No	85	42.5
2.	Is there a permanent presence of the doctor or nurse inside the laboratory	Yes	141	70.5
		No	59	29.5
3.	Have you ever used a treatment for chronic diseases that you suffer from	Yes	132	66.0
		No	68	34.0
4.	Did you take maternity leave (for women):	No	183	91.5
		Yes	17	8.5
5.	Do you have health insurance	Yes	100	50.0
		No	100	50.0
6.	Have you ever received viral liver vaccinations	Yes	132	66.0
		No	68	34.0

7.	Is there a health care center inside the workplace	Yes	64	32.0
		No	136	68.0
8.	Is there a first aid box at the work site	Yes	79	39.5
		No	121	60.5
9.	Is there a place designated for eating	Yes	81	40.5
		No	119	59.5

Part 3: Health Hazard

Table (4.5) Statistical Distribution of the Workers by their Health Hazards (Physical Hazard Domain) through Frequency and Percentage

No.	Variables	Groups	F.	
			F.	%
1.	Is there noise at the workplace	Yes	28	14.0
		No	172	86.0
2.	Is the lighting level appropriate	Yes	18	9.0
		No	182	91.0
3.	Is the work environment clean	Yes	68	34.0
		No	132	66.0
4.	Is there excessive heat in the work environment	Yes	57	28.5
		No	143	71.5
5.	Is ventilation sufficient	Yes	42	21.0
		No	158	79.0
6.	Are there emergency exits	Yes	36	18.0
		No	164	82.0
7.	Is there good ventilation in the work environment	Yes	49	24.5
		No	151	75.5
8.	Are there safety limits according to the competent authorities Have you been exposed to heat stress	Yes	71	35.5
		No	129	64.5
9.	Are there changes in the atmospheric pressure in the work environment	Yes	76	38.0
		No	124	62.0

10.	Have you been exposed to a fire during work	Yes	114	57.0
		No	86	43.0
11.	Have you been exposed to harmful and dangerous radiation during work	Yes	123	61.5
		No	77	38.5
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current uncovers considering mean of score 1.5 that the subject reactions in regards to the Physical Hazards Domain are 11 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories

Table (4.6) Statistical Distribution of the Health Hazards domain (Physical Hazards) at Cement Government Factory

Ratings of Physical Hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	55	27.5	1.6900	High Hazard
Yes	145	72.5		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Physical Hazards (72.5 %) was yes (have Physical Hazards) and minority of them (27.5%) were No (haven't Physical Hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Table (4.7) Statistical Distribution of the Workers by their Health Hazards (Chemical Hazard Domain) concluded frequency & Percentage

No.	Variables	Groups	F.	%
1.	Have you been exposed to dust	No	24	12.0
		Yes	176	88.0
2.	Have you been exposed to toxins	Yes	106	53.0
		No	94	47.0
3.	Have you been inhaled dust	No	35	17.5
		Yes	165	82.5
4.	Have you been exposed to dangerous chemicals (dust, fumes, Gases or smoke)	No	81	40.5
		Yes	119	59.5
5.	Have you had a respiratory allergy	No	76	38.0
		Yes	124	62.0
6.	Have you ever had a skin allergy	Yes	103	51.5
		No	97	48.5
7.	Are there warning signs in the work environment	No	27	13.5
		Yes	173	86.5
8.	Are there units of measurement for the chemical pollution environment	Yes	122	61.0
		No	78	39.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Currant tables means of scores 1.5 conducting questions responding regarding the Chemical Hazards Domain are 8 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.8) Statistical Distribution of the Health Hazards (Chemical Hazard Domain) at Cement Government Factory

Ratings of Chemical Hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	68	34.0	1.6413	High Hazard
Yes	132	66.0		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Chemical Hazard Domain (66 %) was yes (have Chemical Hazards) and minority of them (34%) were No (haven't Chemical Hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Table (4.9) Statistical Distribution of the Workers by their Health Hazards (Biological Hazards Domain) through Frequency and Percentage

No.	Variables	Groups		
			F.	%
1.	Have you had a needle-related injury	Yes	158	79.0
		No	42	21.0
2.	Have you been injured at work	Yes	103	51.5
		No	97	48.5
3.	I got slipped during my work	Yes	112	56.0
		No	88	44.0
4.	Have you suffered burns while working	Yes	144	72.0
		No	56	28.0

5.	Did you suffer from malnutrition	Yes	151	75.5
		No	49	24.5
6.	Have you been exposed to communicable diseases (bacteria, virus, Infectious diseases):	Yes	131	65.5
		No	69	34.5
7.	Have you been exposed to a respiratory infection Have you been exposed to a respiratory infection	Yes	136	68.0
		No	64	32.0
8.	Have you been exposed to tuberculosis	Yes	170	85.0
		No	30	15.0
9.	Have you been exposed to a viral fever	Yes	138	69.0
		No	62	31.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables lighting that means of score 1.5 conduct subjective response regarding the Biological Hazards Domain are 9 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories .

Table (4.10) Statistical Distribution of the Health Hazards (Biological Hazards Domain) at Cement Government Factory

Ratings of Biological Hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	157	78.5	1.3094	Low Hazard
Yes	43	21.5		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Biological Hazards Domain (78.5 %) was no (have Biological Hazards) and minority of them (21.5%) were yes (haven't Biological Hazards), so the assessment of this domain by Statistical Overall was Low Hazard.

Table (4.11) Statistical Distribution of the Workers by their Health Hazards (Psychological Hazards Domain) through Frequency and Percentage

No.	Variables	Groups		
			F.	%
1.	Have you been subjected to stress during work:	Yes	66	33.0
		No	134	67.0
2.	Did you suffer from psychological problems during work	Yes	91	45.5
		No	109	54.5
3.	Were workers treated in a single manner during work	Yes	68	34.0
		No	132	66.0
4.	Have you been stressed at work	Yes	58	29.0
		No	142	71.0
5.	Did you find inequality in the work environment	Yes	77	38.5
		No	123	61.5
6.	Have you been stressed as a result of work	Yes	62	31.0
		No	138	69.0
7.	Have you experienced orthopedic problems or muscle problems	Yes	102	51.0
		No	98	49.0
8.	Have you been exposed to alcohol or drug addiction	Yes	133	66.5
		No	67	33.5
9.	Did you find an increase in work productivity	Yes	200	100.0
10.	Did you find an decrease in work productivity	Yes	71	35.5
		No	129	64.5

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding Psychological Hazards Domain are 10 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.12) Statistical Distribution of the Health Hazards (Psychological Hazards Domain) at Cement Government Factory

Ratings of Psychological Hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	92	46.0	1.5360	High Hazard
Yes	108	54.0		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Psychological Hazards Domain (54 %) was yes (have Psychological Hazards) and minority of them (46%) were No (haven't Psychological Hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Table (4.13) Statistical Distribution of the Workers by their Health Hazards (Mechanical hazard Domain) through Frequency and Percentage

No.	Variables	Groups		
			F.	%
1.	Are there special procedures for machines	No	31	15.5
		Yes	169	84.5
2.	Have you been exposed to the	No	90	45.0

	hazards of machines and mechanical equipment	Yes	110	55.0
3.	Are you exposed to manual equipment while working	No	63	31.5
		Yes	137	68.5
4.	Have you been exposed to risks of conveyer equipment and	No	99	49.5
		Yes	101	50.5
5.	re ladders safe in the work environment	No	41	20.5
		Yes	159	79.5
6.	Are you using seat belts while working at height	No	61	30.5
		Yes	139	69.5

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Mechanical hazards Domain are 6 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories

Table (4.14) Statistical Distribution of the Health Hazards (Mechanical hazards Domain) at Cement Government Factory

Ratings of Mechanical hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	86	43.0	1.6792	High Hazard
Yes	114	57.0		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Mechanical hazards Domain (57 %) was yes (have Mechanical hazards) and minority of them (43%) were No (haven't Mechanical hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Table (4.15) Statistical Distribution of the Workers by their Health Hazards (Electric Hazard Domain) through F& P

No.	Variables	Groups		
			F.	%
1.	have you been exposed to electric shocks while working	Yes	131	65.5
		No	69	34.5
2.	Are there personal equipment while working near the electrical sites	No	80	40.0
		Yes	120	60.0
3.	Are there sources of energy and put signs of knowledge on it	No	48	24.0
		Yes	152	76.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Electric Hazards Domain are 3 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.16) Statistical Distribution of the Health Hazards (Electric Hazards Domain) at Cement Government Factory

Ratings of Chemical Hazards	(n= 200)			
	F.	%	M.S.	Assessment
No	79	39.5	1.61	High Hazard
Yes	121	60.5		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Electric Hazards Domain (60.5 %) was yes (have Electric Hazards) and minority of them (39.5%) were No (haven't Electric Hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Table (4.17) Statistical Distribution of Overall the Health Hazards (all Domain) at Cement Government Factory

Ratings	(n= 200)			
	F.	%	M.S.	Assessment
Have a Health Hazards	111	55.5	1.5135	High Hazard
No Health Hazards	89	44.5		
Total	200	100%		

M.s. (mean of scores)}, Hazard rate of (equal and less than 1) = (No Hazard). Hazard rate (less than 1.5) = (Low Hazard). Hazard rate (1.5) = (Moderate Hazard). Hazard rate (More than 1.5) = (High Hazard), cut off point (1.5).

This table indicates that the majority of Overall the Health Hazards (all Domain) (55.5 %) was yes (Have a Health Hazards) and minority of them (44.5%) were No (haven't Health Hazards), so the assessment of this domain by Statistical Overall was High Hazard.

Part 4: Strategies of Prevention of Occupational Health Hazard

Domain (1): Strategies of Prevention (Safety Equipment)

Table (4.18) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Safety Equipment) through Frequency and Percentage

No.	Variables	Groups	(n = 200)	
			F.	%
1.	Helmet or headgear	Yes	19	9.5
		No	181	90.5
2.	Eye goggles	Yes	29	14.5
		Yes	171	85.5
3.	Face mask	No	54	27.0
		Yes	146	73.0
4.	Earplugs	No	73	36.5
		Yes	127	63.5
5.	Safety belts	No	61	30.5
		Yes	139	69.5
6.	Hand gloves	No	24	12.0

		Yes	176	88.0
7.	Safety shoes	No	20	10.0
		Yes	180	90.0
8.	Respirators	No	9	4.5
		Yes	191	95.5
9.	Protective clothing	No	24	12.0
		Yes	176	88.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Safety Equipment) are 9 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories .

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	22	11.0	1.8261	High Commitment
Yes	178	89.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Safety Equipment) (89 %) was yes (Committed to using prevention strategies) and minority of them (11%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Domain (2): Strategies of Prevention (Places)

Table (4.19) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Places) through Frequency and Percentage

No.	Variables	Groups	F.	%
1.	A place or lounge to eat	No	66	33.0
		Yes	134	67.0
2.	A place to change clothes	No	50	25.0
		Yes	150	75.0
3.	Bathrooms that meet the sanitary conditions	No	36	18.0
		Yes	164	82.0
4.	Male and female bathrooms	No	53	26.5
		Yes	147	73.5
5.	A place to shower if the nature of work requires it	No	52	26.0
		Yes	148	74.0
6.	Medical clinic	No	30	15.0
		Yes	170	85.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Places) are 6 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories

Table (4.20) Statistical Distribution of the Strategies of Prevention (Places) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	60	30.0	1.7608	High Commitment
Yes	140	70.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Places) (70 %) was yes (Committed to using prevention strategies) and minority of them (30%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Domain (3): Strategies of Prevention (Health Requirements)

Table (4.21) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Health Requirements) though F& P.

No.	Variables	Groups	F.	
1.	Drinking water	No	9	4.5
		Yes	191	95.5
2.	Heating devices in winter	No	17	8.5

		Yes	183	91.5
3.	Coolers in summer	No	13	6.5
		Yes	187	93.5
4.	Garbage bins to collect waste	No	7	3.5
		Yes	193	96.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Health Requirements) are 4 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.22) Statistical Distribution of the Strategies of Prevention (Health Requirements) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	10	5.0	1.9675	High Commitment
Yes	190	95.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Health Requirements) (95 %) was yes (Committed to using prevention strategies) and minority of them (5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Domain (4): Strategies of Prevention (working conditions)

Table (4.23) Statistical Distribution of the Workers by Using of the Strategies of Prevention (working conditions) through F&P.

No.	Variables	Groups		
			F.	%
1.	Natural lighting	No	18	9.0
		Yes	182	91.0
2.	Industrial lighting	No	25	12.5
		Yes	175	87.5
3.	Ventilation	No	29	14.5
		Yes	171	85.5
4.	Temperature	No	44	22.0
		Yes	156	78.0
5.	Humidity degree	No	35	17.5
		Yes	165	82.5
6.	Hygiene	No	35	17.5
		Yes	165	82.5
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Working Conditions) are 7 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.24) Statistical Distribution of the Strategies of Prevention (Working Conditions) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	25	12.5	1.8450	High Commitment
Yes	175	87.5		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Working Conditions) (87.5 %) was yes (Committed to using prevention strategies) and minority of them (12.5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. Governmental cement factories were more exposed to physical, chemical and psychological risks, while they were less exposed to biological risks

Governmental cement factories were more exposed to physical, chemical and psychological risks, while they were less exposed to biological risks

Domain (5): Strategies of Prevention (Exposition)

Table (4.25) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Exposition) through F&P.

No.	Variables	Groups	F.	%
1.	Noise	No	28	14.0
		Yes	172	86.0
2.	Dust	No	24	12.0
		Yes	176	88.0
3.	Fume	No	34	17.0
		Yes	166	83.0
4.	Gases such as carbon dioxide	No	54	27.0
		Yes	146	73.0
5.	Radiation (such as light from the welding process)	No	58	29.0
		Yes	142	71.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Exposition) are 5 items

at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.26) Statistical Distribution of the Strategies of Prevention (Exposition) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	34	17.0	1.802	High Exposition
Yes	166	83.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (No Exposition). Strategies of Prevention (less than 1.5) = (Little Exposition). Strategies of Prevention (1.5) = (Moderate Exposition). Strategies of Prevention (More than 1.5) = (High Exposition), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Exposition) (83 %) was yes (exposed) and minority of them (17%) were No (No exposed), so the assessment of this domain by Statistical Overall was High Exposition.

Domain (6): Strategies of Prevention (Peace Factors)

Table (4.27) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Peace Factors) through F & P .

No.	Variables	Groups		
			F.	%
1.	The machines available inside the work are designed in a way	Yes	25	12.5

	that ensures the safety of workers	No	175	87.5
2.	The machines are operated inside the facility by specialists or under their supervision	Yes	18	9.0
		Yes	182	91.0
3.	There is enough space around the machines and machines to allow the passage of workers and not hinder the performance of their work	No	17	8.5
		Yes	183	91.5
4.	The machines are stopped and the power is cut off when they are maintained	No	17	8.5
		Yes	183	91.5
5.	The machines used are fireproof	No	47	23.5
		Yes	153	76.5
6.	There are guidance panels next to the machines in the workplace to guide workers to the correct way of working	No	23	11.5
		Yes	177	88.5
7.	The tools and tools used in the work are durable and free from defects	No	27	13.5
		Yes	173	86.5
8.	The staff was instructed and trained to use and maintain the kit	No	10	5.0
		Yes	190	95.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Peace Factors) are 8 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.28) Statistical Distribution of the Strategies of Prevention (Peace Factors) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	16	8.0	1.885	High Commitment
Yes	184	92.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Peace Factors) (92 %) was yes (Committed to using prevention strategies) and minority of them (8%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Domain (7): Strategies of Prevention (Emergency Fund)

Table (4.29) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Emergency Fund) through F & P .

No.	Variables	Groups		
			F.	%
1.	The appropriate number of ambulance boxes is available inside the facility	No	69	34.5
		Yes	131	65.5
2.	The ambulance box(s) are located in easily accessible places	No	64	32.0
		Yes	136	68.0

3.	The necessary materials and medicines are available inside the emergency box	No	80	40.0
		Yes	120	60.0
4.	The responsibility of supervising the ambulance box is assumed by a person from within the facility who is familiar with how to use materials and medicines	No	54	27.0
		Yes	146	73.0
5.	The supervisor of the emergency fund is present during working hours	No	74	37.0
		Yes	126	63.0
Total				

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Emergency Fund) are 5 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories.

Table (4.30) Statistical Distribution of the Strategies of Prevention (Emergency Fund) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	72	36.0	1.659	High Commitment
Yes	128	64.0		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Emergency Fund) (64 %) was yes (Committed to using prevention strategies) and minority of them (36%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Domain (8): Strategies of Prevention (Industrial Security)

Table(4.31) Statistical Distribution of the Workers by Using of the Strategies of Prevention (Industrial Security) F& P .

No.	Variables	Groups	F&P	
			F.	%
1.	The administration shall make sufficient efforts to ensure the health and safety of employees	No	39	19.5
		Yes	161	80.5
2.	The administration conducts preliminary medical examinations (before employment) for the employee	No	41	20.5
		Yes	159	79.5
3.	The administration conducts periodic medical examinations (every certain period of time) for the employees	No	51	25.5
		Yes	149	74.5
4.	The department provides brochures and brochures related to industrial security	No	62	31.0
		Yes	138	69.0
5.	The management always provides the necessary safety equipment for work	No	22	11.0
		Yes	178	89.0
6.	Management responds to employee suggestions regarding safety and security at work	No	41	20.5
		Yes	159	79.5
7.	The administration holds training courses for security and	No	18	9.0

	safety at work	Yes	182	91.0
8.	The management educates the employees about the nature of the materials used	No	35	17.5
		Yes	165	82.5

M.S. = (mean of scores). Std. Dev. = (standard deviation). R.S. = (rating score). Freq. = (frequency).

% = (percentage).

Current tables that means score 1.5 that subjective of respond regarding the Using of the Strategies of Prevention (Industrial Security) are 8 items at cut off point for means of scores equal 1.5. The subjects responses were yes and no at all items in the scale of the section of cement factories

Table (4.32) Statistical Distribution of the Strategies of Prevention (Industrial Security) at Cement Government Factory

Ratings of Strategies of Prevention	(n= 200)			
	F.	%	M.S.	Assessment
No	43	21.5	1.8069	High Commitment
Yes	157	78.5		
Total	200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of using prevention strategies (Industrial Security) (78.5 %) was yes (Committed to using prevention

strategies) and minority of them (21.5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment.

Table (4.33) Distribution of the study Participant Strategies of Prevention Scale level among cement factories

Ratings		(n= 200)			
		F.	%	M.S.	Assessment
Strategies of Prevention Scale	Uncommitted for Strategies of Prevention	6	3.0	1.819	High Commitment
	Committed for Strategies of Prevention	194	97.0		
Total		200	100%		

M.s. (mean of scores)}, Strategies of Prevention of (equal and less than 1) = (Uncommitted). Strategies of Prevention (less than 1.5) = (Little Commitment). Strategies of Prevention (1.5) = (Moderate Commitment). Strategies of Prevention (More than 1.5) = (High Commitment), cut off point (1.5).

This table indicates that the majority of overall the prevention strategies (97%) was Committed to using prevention strategies and minority of them (3%) were Uncommitted to using the Prevention Strategies, so the assessment of this domain by Statistical Overall was High Commitment.

Table (4.34): Relationship between the overall Health Hazards of Workers and their demographic characteristics

N.	Demographic data	Rating and intervals	Overall Health Hazards		Chi-square value	d.f .	p-value
			Have a Health Hazards	No Health Hazards			
1.	Age / Years	- (Less than 18) years	2	0	1.645 ^a	2	0.439

		- (18-35) years	38	32			
		- (More than 35) years	71	57			
2.	Gender	Male	102	86	1.965 ^a	1	0.161
		Female	9	3			
3.	Marital Status	- Single	78	71	3.740 ^a	3	0.291
		- Married	5	2			
		- Divorced	6	6			
		- Widow	22	10			
4.	Number of years in service	Less Than 1 Year	14	6	3.992 ^a	2	0.136
		(1-5) Years	18	9			
		More Than 5 Years	79	74			
5.	Monthly Income	- Sufficient	44	32	3.962 ^a	2	0.138
		- Barely sufficient	26	13			
		- Insufficient	41	44			
6.	Residency Area	- Urban	96	77	.000 ^a	1	0.995
		- Rural	15	12			
7.	Job Title	Worker	24	17	6.563 ^a	6	0.363
		Chief Workers	15	13			
		Observer Technician	15	14			
		Chief Observers Technician	14	20			
		Assistant Engineer	5	4			
		Engineer	21	8			
		Chief Engineer	17	13			
8.	Level of Education	Illiterate	1	2	17.051 ^a	5	0.004 H.S.
		Literate (read & write)	1	11			

		Graduate of Primary School	15	13			
		Graduate of Intermediate/ Secondary School	25	27			
		Graduate of Institute/ College	10	5			
		Graduate of High Education	59	31			
9.	Department	Mills	58	36	35.874 ^a	12	0.000 H.S.
		security clearances	3	0			
		Queries	0	3			
		Crushers	3	18			
		Ovens	4	11			
		subtractors	15	11			
		Administrati on	3	2			
		Awareness	11	3			
		Guidance	4	3			
		Technical Section	3	2			
		Quality Section	2	0			
		Mechanical Section	1	0			
		laboratory	4	0			
10.	Working Hours	Less Than 6 Hours	6	4	2.556 ^a	2	0.279
		(6-8) Hours	102	85			
		More Than 8 Hours	3	0			
11.	Shaft of Work	Morning Shift	98	71	2.733 ^a	1	0.098
		Night Shift	13	18			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

This current uncovers considering mean of scores 1.5 that the subjects reactions in regards to the overall Health Hazards of Workers and their demographic characteristics

(Level of Education and department), at p – values < 0.01 though is Non – significantly relation-ship regarding remainings demographics (gender, age, marital status, residency area, job title, Number of years in service, Working Hours and Shaft of Work).

Table (4.35) Association between Overall of the Health Hazards with Medical History

N.	Domains of Medical History	Rating and intervals	Overall Health Hazards		Chi-square value	d.f .	p-value
			Have a Health Hazards	No Health Hazards			
1.	Medical History -1	Yes	73	54	.552 ^a	1	0.457
		No	38	35			
2.	Medical History -2	Yes	105	67	15.303 ^a	1	0.000 H.S.
		No	6	22			
3.	Medical History -3	Yes	105	64	19.407 ^a	1	0.000 H.S.
		No	6	25			
4.	Medical History -4	Yes	92	54	12.361 ^a	1	0.000 H.S.
		No	19	35			
5.	Medical History -5	Yes	80	43	11.775 ^a	1	0.001 H.S.
		No	31	46			
6.	Medical History -6	Yes	87	52	9.276 ^a	1	0.002 S.
		No	24	37			
7.	Medical History -7	Yes	90	53	11.237 ^a	1	0.001 S.
		No	21	36			

8.	Medical History -8	Yes	94	60	8.318 ^a	1	0.004 S.
		No	17	29			
9.	Medical History -9	Yes	100	69	5.951 ^a	1	0.015 S.
		No	11	20			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

Current table presents that highly significantly associated between overall Health Hazards of Workers and all Domains of medical History, through P- values < 0.01 although there is Non significantly relationships first domain Prevention Strategies.

Table (4.36) Association among Overall of the Health Hazards with Overall of the Medical History

Prevention Strategies	Rating and intervals	Overall Health Hazards		Chi-square value	d.f.	p-value
		Have a Health Hazards	No Health Hazards			
Overall Medical History	Poor	105	65	18.01	1	0.000 HS.
	Good	6	24			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

These result indicates that found was highly significantly relationship among Overall of Health Hazards with Overall of Medical History at ($P < 0.05$) wear analysis using Ch – square testing .

Table (4.37) relationship among Overall of Health Hazards with all Domains of the Health Care Facilities

N.	Domains of Prevention Strategies	Rating and intervals	Overall Health Hazards		Chi-square value	d.f.	p-value
			Have a Health Hazards	No Health Hazards			
1.	Health Care Facilities -1	Yes	71	44	4.265 ^a	1	0.039
		No	40	45			
2.	Health Care Facilities -2	Yes	92	49	18.391 ^a	1	0.000
		No	19	40			
3.	Health Care Facilities -3	Yes	79	53	2.972 ^a	1	.085
		No	32	36			
4.	Health Care Facilities -4	Yes	100	83	.638 ^a	1	.425
		No	11	6			
5.	Health Care Facilities -5	Yes	63	37	4.555 ^a	1	0.033
		No	48	52			
6.	Health Care Facilities -6	Yes	81	51	5.405 ^a	1	0.020
		No	30	38			
7.	Health Care Facilities -7	Yes	40	24	1.867 ^a	1	.172
		No	71	65			
8.	Health Care Facilities -8	Yes	51	28	4.337 ^a	1	0.037 S.
		No	60	61			
9.	Health Care Facilities -9	Yes	50	31	2.138 ^a	1	0.144
		No	61	58			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

Current table presents the significantly associated among overall Health Hazards of Workers and all Domains of Health Care Facilities (Domain 2, 2, 5, 6, 8), with p – values < 0.05 significantly association with remaining domains Health Care Facilities.

Table (4.38) Association between Overall of the Health Hazards with Overall of the Health Care Facilities

Health Care Facilities	Rating intervals and	Overall Health Hazards		Chi-square value	d.f .	p-value
		Have a Health Hazards	No Health Hazards			
Overall Health Care Facilities	Poor	82	38	20.005	1	0.000 H.S.
	Good	29	51			

NS: Non-Sig. at $P>0.05$, S: Sig. at $P<0.05$, HS: high significant at p -value less than 0.01.

Current result indicates that was highly significantly relationship among Overall of Health Hazards with Overall of Health Care Facilities by using analyzing chi- square.

Table (4.39) associated among Overall of the Health Hazards with all Domains of the Strategies of Prevention

N .	Domains of Prevention Strategies	Rating and intervals	Overall Health Hazards		Chi-square value	d.f .	p-value
			Have a Health Hazards	No Health Hazards			
1.	Strategies of Prevention (Safety Equipment)	Uncommitted	15	7	1.610 ^a	1	.205
		Committed	96	82			
2.	Strategies of Prevention (Places)	No Places	44	16	11.037	1	0.001 H.S.
		Available Places	67	73			
3.	Strategies of Prevention (Health Requirements)	Not Available	3	7	2.771 ^a	1	.096
		Available	108	82			

4.	Strategies of Prevention (Working Conditions)	Unsuitable	14	11	.003 ^a	1	.957
		Suitable	97	78			
5.	Strategies of Prevention (Working Conditions)	Exposed	27	7	9.484 ^a	1	0.002 S.
		Unexposed	84	82			
6.	6. Strategies of Prevention (Peace Factor)	Unused in the Work	7	9	.972 ^a	1	0.324
		Used in the Work	104	80			
7.	Strategies of Prevention (Emergency Fund)	Not Available	47	25	4.355 ^a	1	0.037 S.
		Available	64	64			
8.	Strategies of Prevention (Industrial Security)	Not Available	25	18	.155 ^a	1	0.694
		Available	86	71			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

Current table presents that was highly significantly associated between overall Health Hazards of Workers and all Domains of Prevention Strategies (Emergency Fund, Working Conditions and Places), at p-values < 0.01 with non significantly relation of remaining domains of Prevention Strategies

Table (4.40) Association between Overall of the Health Hazards with Overall of the Strategies of Prevention

Prevention Strategies	Rating and intervals	Overall Health Hazards		Chi-square value	d. f.	p-value
		Have a Health Hazards	No Health Hazards			
Overall Strategies of Prevention	Uncommitted for Strategies of Prevention	5	1	1.940 ^a	1	0.164
	Committed for Strategies of Prevention	106	88			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

This result indicates that there was no significant relationship between Overall of Health Hazards with Overall of Strategies of Prevention at ($p < 0.05$) when analyzed by chi-square test.

Table (4.41) Relationship among the overall Strategies of Prevention of Workers and their demographic characteristics

N .	Demographic data	Rating and intervals	Overall Strategies of Prevention		Chi-square value	df .	p-value
			Uncommitted for Strategies of Prevention	Committed for Strategies of Prevention			
1.	Age/ Years	-(Less than 18) years	0	2	1.017	2	0.601 N.S.
		-(18-35) years	1	69			
		-(More than 35) years	5	123			
2.	Gender	Male	2	186	40.365 ^a	1	0.000 H.S.
		Female	4	8			
3.	Marital Status	- Single	3	146	5.555 ^a	3	0.053 S.
		- Married	0	7			
		- Divorced	0	12			
4.	Number of years in service	Less Than 1 Year	0	20	1.900 ^a	2	0.032 S.
		(1-5) Years	0	27			
		More Than 5 Years	6	147			
5.	Monthly Income	- Sufficient	5	71	6.000 ^a	2	.050 S.
		- Barely sufficient	1	38			
		- Insufficient	0	85			
6.	Residency Area	- Urban	6	167	.965 ^a	1	0.021 S.
		- Rural	0	27			

7.	Job Title	Worker	0	41	23.636 ^a	6	0.001 H.S.
		Chief Workers	0	28			
		Observer Technician	1	28			
		Chief Observers Technician	0	34			
		Assistant Engineer	0	9			
		Engineer	0	29			
		Chief Engineer	5	25			
8.	Level of Education	Illiterate	0	3	7.560 ^a	5	0.047 S.
		Literate (read & write)	0	12			
		Graduate of Primary School	0	28			
		Graduate of Intermediate / Secondary School	0	52			
		Graduate of Institute/ College	0	15			
		Graduate of High Education	6	84			
9.	Department	Mills	4	90	13.409 ^a	12	.340 N.S.
		security clearances	0	3			
		Queries	0	3			
		Crushers	0	21			
		Ovens	0	15			
		subcontractors	0	26			
		Administration	1	4			
		Awareness	0	14			
		Guidance	0	7			
		Technical Section	1	4			

		Quality Section	0	2			
		Mechanical Section	0	1			
		laboratory	0	4			
10.	Working Hours	Less Than 6 Hours	0	10	.430 ^a	2	0.807 N.S.
		(6-8) Hours	6	181			
		More Than 8 Hours	0	3			
11.	Shaft of Work	Morning Shift	6	163	1.135 ^a	1	0.287 N.S.
		Night Shift	0	31			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

This result presents of the highest significantly associated between overall Strategies of Prevention of Workers and their demographic characteristics (age, gender, job title, monthly income, marital status and Number of years in service, through < 0.01 although was no – significantly associated through enduring variables of data- demographic

Table (4.42) association among the overall Strategies of Prevention of Workers & Medical History.

N .	Domains of Medical History	Rating and intervals	Overall Strategies of Prevention		Chi-square value	d f.	P-value
			Uncommitted for Strategies of Prevention	Committed for Strategies of Prevention			
1.	Medical History -1	Yes	4	123	.027 ^a	1	.870
		No	2	71			
2.	Medical History -2	Yes	6	166	1.007 ^a	1	.316
		No	0	28			
3.	Medical History -3	Yes	6	163	1.135 ^a	1	.287

		No	0	31			
4.	Medical History -4	Yes	5	141	.335 ^a	1	.563
		No	1	53			
5.	Medical History -5	Yes	3	120	.345 ^a	1	.557
		No	3	74			
6.	Medical History -6	Yes	3	136	1.110 ^a	1	.292
		No	3	58			
7.	Medical History -7	Yes	4	139	.071 ^a	1	.790
		No	2	55			
8.	Medical History -8	Yes	5	149	.140 ^a	1	.708
		No	1	45			
9.	Medical History -9	Yes	6	163	1.135 ^a	1	.287
		No	0	31			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

Current table presents was non-significantly associated among overall Strategies of Prevention of Workers and all Domains of medical History, at P- Value < 0.05 ..

Table (4.43) Associated among Overall the Strategies of Prevention with Overall of the Medical History

Medical History	Rating and intervals	Overall Strategies of Prevention		Chi-square value	d.f	p-value
		Uncommitted for Strategies of Prevention	Committed for Strategies of Prevention			
Overall Medical History	Poor	5	165	.013 ^a	1	0.908 N.S.
	Good	1	29			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

This result indicates that there was non-significant relationship between Overall of Strategies of Prevention with Overall of Medical History at ($p < 0.05$) when analyzed by chi-square test.

Table (4.44) Associated among Overall of Strategies of Prevention with all Domains of the Health Care Facilities

N	Domains of Health Care Facilities	Rating and intervals	Overall Strategies of Prevention		Chi-square value	d.f.	p-value																																																																																			
			Uncommitted for Strategies of Prevention	Committed for Strategies of Prevention																																																																																						
1.	Health Care Facilities -1	Yes	4	111	.213 ^a	1	.645																																																																																			
		No	2	83				2.	Health Care Facilities -2	Yes	5	136	.490 ^a	1	.484	No	1	58	3.	Health Care Facilities -3	Yes	4	128	.001 ^a	1	.972	No	2	66	4.	Health Care Facilities -4	Yes	4	179	4.905 ^a	1	0.027	No	2	15	5.	Health Care Facilities -5	Yes	4	96	.687 ^a	1	.407	No	2	98	6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972	No	2	66	7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a
2.	Health Care Facilities -2	Yes	5	136	.490 ^a	1	.484																																																																																			
		No	1	58				3.	Health Care Facilities -3	Yes	4	128	.001 ^a	1	.972	No	2	66	4.	Health Care Facilities -4	Yes	4	179	4.905 ^a	1	0.027	No	2	15	5.	Health Care Facilities -5	Yes	4	96	.687 ^a	1	.407	No	2	98	6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972	No	2	66	7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119						
3.	Health Care Facilities -3	Yes	4	128	.001 ^a	1	.972																																																																																			
		No	2	66				4.	Health Care Facilities -4	Yes	4	179	4.905 ^a	1	0.027	No	2	15	5.	Health Care Facilities -5	Yes	4	96	.687 ^a	1	.407	No	2	98	6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972	No	2	66	7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																	
4.	Health Care Facilities -4	Yes	4	179	4.905 ^a	1	0.027																																																																																			
		No	2	15				5.	Health Care Facilities -5	Yes	4	96	.687 ^a	1	.407	No	2	98	6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972	No	2	66	7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																												
5.	Health Care Facilities -5	Yes	4	96	.687 ^a	1	.407																																																																																			
		No	2	98				6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972	No	2	66	7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																																							
6.	Health Care Facilities -6	Yes	4	128	.001 ^a	1	.972																																																																																			
		No	2	66				7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065	No	2	134	8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																																																		
7.	Health Care Facilities -7	Yes	4	60	3.416 ^a	1	.065																																																																																			
		No	2	134				8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.	No	1	120	9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																																																													
8.	Health Care Facilities -8	Yes	5	74	4.973 ^a	1	0.026 S.																																																																																			
		No	1	120				9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.	No	0	119																																																																								
9.	Health Care Facilities -9	Yes	6	75	9.087 ^a	1	0.003 S.																																																																																			
		No	0	119																																																																																						

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

The table presents that there is a significant association between the overall Strategies of Prevention of Workers and all Domains of Health Care Facilities (Domain 4, 8, 9), at p-value <0.05 while there is a non-significant relationship with remaining domains of Health Care Facilities.

Table (4.45) Association among Overall the Strategies of Prevention with Overall of the Health Care Facilities

Health Care Facilities	Rating and intervals	Overall Strategies of Prevention		Chi-square value	d.f .	p-value
		Uncommitted for Strategies of Prevention	Committed for Strategies of Prevention			
Overall Health Care Facilities	Poor	4	116	0.115 ^a	1	0.735 N.S.
	Good	2	78			

NS: Non-Sig. at P>0.05, S: Sig. at P<0.05, HS: high significant at p-value less than 0.01.

This result indicates that there was Non-significant relationship between Overall of Strategies of Prevention with Overall of Health Care Facilities at (p< 0.05) when analyzed by chi-square test.

Table (4.46) relationship among Overall of the Strategies of Prevention with all Domains of Health Hazards

N .	Domains of Health Hazard	Rating and intervals	Overall Strategies of Prevention		Chi-square value	d.f.	p-value
			Committed	Uncommitted			
1.	Health Hazard - Physical	Poor	5	50	9.672 ^a	1	0.002 S.
		Good	1	144			
2.	Health Hazard - Chemical	Poor	1	67	.828 ^a	1	0.363
		Good	5	127			
3.	Health Hazard - Biological	Poor	6	151	1.694 ^a	1	0.193
		Good	0	43			

4.	Health Hazard - Psychological	Poor	5	87	3.471 ^a	1	0.062
		Good	1	107			
5.	Health Hazard - Mechanical	Poor	6	80	8.199 ^a	1	0.004 S.
		Good	0	114			
6.	Health Hazard - Electric	Poor	3	76	.285 ^a	1	0.593
		Good	3	118			

NS: Non-Sig. at $P > 0.05$, S: Sig. at $P < 0.05$, HS: high significant at p-value less than 0.01.

The table presents that there is a significant association between the overall Strategies of Prevention of Workers and Domains of Health Hazards (Physical, Mechanical), at p-value < 0.05 while there is a non-significant relationship with remaining domains.

Table (4.47) Stepwise Regression for Predicting the Effect of Strategies of Prevention of Workers on Health Hazards

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
Health Care Facilities (Health Services)	.321	.068	.316	4.691	0.000
Medical History	.318	.096	.228	3.327	0.001

a. Dependent Variable: Health Hazards -Total Scale

b. Predictors: (Constant), Health Care Facilities (Health Services)

c. Predictors: (Constant), Health Care Facilities (Health Services), Medical History.

The findings reveal that there is highly significant relationship between Health Hazards and Health Care Facilities and Medical History at $P < 0.05$.

Chapter Five

Discussions

Discussions

In this chapter to discuss the results is considered the pulse of the research and the researcher in clarifying the researcher's point of view through the results and their interpretation by matching them with other similar researches. In this chapter, the interpretation of the results is based on the credibility of achieving the objectives of the researcher. The chapter includes several themes divided into parts as follows:

The **Table (4.1)** finding of the study about occupational characteristics of the study participants, the higher proportion of the study participants of the Cement Workers percentage age were (64%) and numbers (128) were (more than 35) years old whereas the minority of them (1 %) were (less than 18) years . However, the current study agree with the study of (Abdelhamid, T. S., & Everett, J. G. , 2019) , as the business rate, which ranged around 54%, was closely related to the demographic information regarding age. Hence, our vision is that the government cement factories in Najaf have the highest average age, ranging between about were (more than 35) years old, while the rest constituted the lowest percentage according to the above explanation.

The residence area indicates that the majority of the Cement Workers percentage (86.5%) and numbers (173) were (urban) whereas the minority of them (13.5%) were (rural). The workforce handled nearly half of the total population . (Ibrahim, A. M. , 2014). In Iraq and regardless of the high unemployment rate compared to different countries, the business rate ranged from 46.8% to 49.2% with more than nine million people employed . (Uribe Guajardo et al .,2020). The power of men invested a large part of their energy in work environments, and factories and industrial establishments were considered as one of the important foundations in improving the economy of countries . (Wei, M., Patadia, S., & Kammen, D.

M. , 2018). The age-related discoveries are reliable have investigation of Amin and another researcher in the Republic of Egypt, which tracked down that laborers' ages range from (41-50) years (Amin, S. M. et al ., 2020).

The monthly income variable reveals that the majority of the Cement Workers percentage (42.5%) and numbers (85) were (Insufficient) whereas the minority of them (19.5%) were Insufficient). This study was agreement with the Takeda, J. and Ashi, H. A. analyzes the mental and monetary transformation of Iraqi workers, one of the growing numbers of relied upon and re-worked groups in this country during the 2000s. Information was obtained from 105 Iraqi male industrial workers. The results revealed that workers in the industrial sector do not have enough monthly income due to poor living conditions and a decrease in the monthly income of the worker. (Ashi, H. A. , 2018) & (Takeda, J. , 2016). The From here begins the researcher's opinion about the problem of lack of income, which means it is not enough, and whose reasons are realistic, that the industry in Iraq is low in production, and therefore the worker receives an insufficient monthly salary and does not enough his needs, so the largest percentage was insufficient as explained above.

The marital status shows that the majority of the Cement Workers percentage (74.5%) and numbers (149) were (married) whereas the minority of them (7%) were (single), and also the level of educational present that the majority of the Cement Workers percentage (45%) were (Graduate of Institute/ High Education) whereas the minority of them (1.5%) were (illiterate). Agree for (Qassim, W. J., and Abed, R. I. , 2021), that show the vast majority of workers are married they are accounted 89(89%) .

In addition, the gender of workers reveals that the majority of the Cement Workers percentage (94%) were (male) whereas the minority of them (6%) were (female), agree to study by (Klein et al., 2015), that present the male more than female by 92% .

The number of years of service presents that the majority of the Cement Workers percentage (76.5%) were (More Than 5 Years) whereas the minority of them (10%) were (less Than 1 Year), and the title of job presents that the majority of the Cement Workers percentage (20%) were (workers) whereas the minority of them (5%) were (assistant engineer), and the numbers of work hours presents that the majority of the Cement Workers percentage (93.5%) were (6-8) hours whereas the minority of them (5%) were (less than 6 hours). Cwikel, J., Ilan, K., & Chudakov, B. (2017), this study was incompatibility our study that present in cement workers more than 5 years largest group . and Also, in the expanse of sufficiency and insufficiency of monthly income, it did not correspond to the current study . Also Regarding the workplace of workers shows that the majority of the Cement Workers percentage (47%) were (malls section) whereas the minority of them (1%) were (quality section), and the shift of work shows that the majority of the Cement Workers percentage (84%) were (morning shift) whereas the minority of them (16%) were (night shift). The subjects responses were poor at (1, 2, 3, 4, 6, 7, 8, and 9) items means of scores . 1.5 conclusive medical history of cement factories. Their for the researcher Abrams, H. K. (2021). Agree the results of the current study regarding that there is a relationship between medical history, occupational safety and how to be exposed to hazards . It was found that the researcher . Quick, J. C. (2016). agrees about the study that the worker is absent from work due to exposure to risks in the work environment.

The following is the study that showed that the percentage of workers who are absent from work due to health problems is about 63.5% . The

reason behind the high percentage is that the worker is greatly affected by a group of hazards, which in turn leads to absenteeism from work for treatment or for a proper rest.

In this study (Quick, J. C. , 2016). which agrees with the current study, where it is indicated that many workers want to continue working while the other does not want because of health problems resulting from the chronic diseases that work is exposed to during the employment period. The result represents that the worker has chronic diseases during the work period, which constituted about 84.5% because the worker is exposed to chemical hazards. respiratory diseases, heart diseases and psychological diseases, as well as the workers not have awareness about the occupational health and safety measures , so they are exposed to chronic diseases during work .

The researcher study (Tirgar et al ., 2019) . which agreed with the current study, that was entitled about the importance of injuries that occur during work. Which was about 68% . It agreed with the current study with regard to the injuries that lead to the worker being suspended from work due to the injury. As the current result was in good agreement with the researcher above. This happens because workers neglect to use occupational safety tools during contact with risks in the work environment, and thus injuries that lead to disability occur to workers in the work environment, which constituted in the current study about 73% .

The study (Mälkönen et al ., 2017) was agree with regard to the study, the risks of exposure to a skin disease (eczema) , indicating that about 48% of the workers were referred to the dermatologist and took leave from work, and their plant was about 23% suffering from skin diseases, as their ages ranged between 30-42 years. The reason is that workers are exposed to risks and chemical fumes during work, as it was found that after

that period they show signs of eczema. As the current study shows the severity of exposure of workers in the work environment to chemical hazards. Hence, workers must prevent or reduce those risks that affect the skin, and they must adhere to skin protection equipment, which is one of the most important occupational safety and health standards to ensure the protection of the worker from exposure to those risks.

The study (Sana et al, 2015) was agreed with the current study with regard to respiratory problems and tuberculosis problems among workers, where the infection rate was about 41-51 related to respiratory diseases, which often occurs during the worker's exposure to fumes and chemicals. The reason is that the workers in those laboratories are no longer committed to occupational safety and protection equipment (negligence). Or that the new workers are exposed to it because of their lack of prior knowledge of the risks they are exposed to while working and the occupational safety equipment concedes very important for protecting of life of workers from hazards.

With regard to the results that appeared in the current study, especially the medical history of the worker and how was infected with skin diseases (eczema). And respiratory diseases (asthma - tuberculosis) because of the workers that exposure of chemical hazards . as well as heart diseases that workers are exposed to due to the statistic that government laboratories in Iraq in general and in Najaf governorate in particular, because the worker is looking for the amount of production to increase the monthly income, and thus the proportion of his exposure to risks increased even more. On the other hand, the work They neglect the commitment to the protection and prevention equipment approved by the Occupational Health and Safety Organization in the world. (WHO ., 2019).

The study (Szeszenia-Dąbrowska et al ., 2019) which was agreement with the current study with regard to the medical history of workers and its relationship with risks, as it discussed the levels of previous risks that the worker was exposed to in the work environment, including falls, absenteeism and ill health that occurred with the worker during work. her working. This consensus is realistic about the level of exposure to the current risks to which the worker is exposed. Therefore, all risks are due to one reason, which is the lack of commitment to occupational safety and protection equipment.

And also in another study (Aminian, O., Aslani, M., & Haghghi, K. S. , 2014).) it was regard to psychological effects during a period of time to which the worker is exposed to hazards . As the reason behind this is due to the long periods of work during the (morning and night shift), which leads to tension and psychological anxiety for the worker, as well as the lack of entertainment trips and providing the necessary psychological support for the worker to reduce work pressures during the work period, as well as the decries of weekly or monthly breaks for all workers It is considered a cause of psychological stress in the worker.

The study in Nigeria (Ademola, E., Akinbode, J., & Sokefun, E. , 2018). The review uncovered that the recurrence level of word related risks affected specialists execution; a tremendous contrast exist between execution levels of solid specialists to undesirable workers ; and that protected specialists had high inclinations of performing at work than laborers who were hazardous working in the concrete business. That was compatible with current study Regarding the hazards to which workers are exposed and how to prevent them in cement factories.

The current study (Huang et al ., 2018) was agree about to the worker's exposure to respiratory problems in cement factories and the

importance of their impact on the worker's life. The study was conducted on 147 workers exposed to chemical dust in the work environment. The study concluded that a large number of workers are affected by future respiratory problems that have a significant impact on the worker's life. As now the reasons indicate that the worker mistakes in how to apply respiratory protection equipment from those hazards and how to apply to reduce those chemical dust issued from one of the production stages in cement factories .

This table (4.4) that the study result about responses for study subject about health care facilities that indicate the majority of the study sample are positive responses for all items except (7,8, and 9) were negative responses about health care facilities .

(Saurin et al ., 2018) in this study was agreement with a current study Concerning that the study included a group of workers of the category of engineer, the study was conducted on the importance of conducting medical examinations, whether they are (weekely - monthly - quarterly) and their importance. The study was conducted on approximately 300 engineers, and the study showed the importance of the examination for the safety of workers in the laboratory environment. The current study, which included about 200 workers, shows that there are 115 workers who are conducting tests, and their percentage is about 57.5%. The reasons are due to the presence of a health center responsible for the safety of workers, and the other reason is the nearly of the factory to the city, so it facilitates the process of conducting the monthly examination for workers.

(Joubert, et al . , 2017) The study was compatible with the current study, as the study was conducted in the Paris, France. Assessment of health and occupational hazards to workers working in sewing factories, , there are a number of hazards to which workers are exposed, similar to the

hazards faced by workers in cement factories . The reason is due to the agreement of the study is that hazards to which work is exposed in the seemlier hazards have a significant impact on the level of worker's health and safety and another cause the importance of applying occupational safety and health standards is one of the most important reasons that lead to worker safety in the work environment.

This table (4.6) indicates that the majority of Physical Hazards (72.5 %) was yes (have Physical Hazards) and minority of them (27.5%) were No (haven't Physical Hazards), so the assessment of this domain by Statistical Overall was High Hazard. Concerning that the study (KARAHAN, V., & AKOSMAN, C.,2018). agrees with the study regarding the exposure of workers in cement factories to the highest levels of hazards . The study showed the importance of applying occupational safety strategies. The reason is due to the work environment in such industries in which the worker is exposed to great hazards . It is so dangerous that it causes disability or even loss of hearing etc ... from hazards , and it may be the most dangerous of them that may threaten the life of the worker.

This table (4.8) indicates that the majority of Chemical Hazard Domain (66 %) was yes (have Chemical Hazards) and minority of them (34%) were No (haven't Chemical Hazards), so the assessment of this domain by Statistical Overall was High Hazard . A study was (Al Salhen, K. S. , 2014). Workers about the chemical hazards to which the worker is exposed in the environment of the cement factories in relation to his exposure to toxic dust, chemicals and chemical solutions, which develop and lead to an impact on the worker's life, including suffocation, difficulty breathing and other effects on the skin. The reason that the worker suffers from chemical hazards is that the worker is not committed to the protection tools of the skin, eyes and respiratory system. Among the reasons that lead

to an increase in exposure to dust or chemical dust is the lack of vegetation cover in the laboratory environment.

This table **(4.10)** indicates that the majority of Biological Hazards Domain (78.5 %) was no (have Biological Hazards) and minority of them (21.5%) were yes (haven't Biological Hazards), so the assessment of this domain by Statistical Overall was Low Hazard. The study (Emmanuel, N. O., Ernest, A., & Douglas, K. 2021). identical, as the study was conducted on October 26, 2021 in Nigeria, in an attempt to include an assessment of all risks (physical - chemical - biological - mechanical and other risks) to which the worker is exposed in the work environment. With regard to the exposure to biological risks, the reason is due to the workers' lack of commitment to the strategies of protection and prevention from those risks.

This table **(4.12)** indicates that the majority of Psychological Hazards Domain (54 %) was yes (have Psychological Hazards) and minority of them (46%) were No (haven't Psychological Hazards), so the assessment of this domain by Statistical Overall was High Hazard. The study was agreed with the current study with regard to the psychological problems and risks that the worker is exposed to in the age environment and is usually affected by factors that increase the chance of anxiety and tension in the worker. (Ibrahim, A. K. , 2020)The reason is that the percentage of risks obtained is classified among the high risks and this is due to misconduct by the management. The lack of full psychological support for workers and the lack of recreational breaks for the worker, thus increasing the chance of exposure to anxiety.

This table **(4.14)** indicates that the majority of Mechanical hazards Domain (57 %) was yes (have Mechanical hazards) and minority of them (43%) were No (haven't Mechanical hazards), so the assessment of this domain by Statistical Overall was High Hazard. The current study was in

agreement with a study conducted in cement factories on the mechanical risks to which workers are exposed. Where the risk ratio was about 56.1% of the environmental risks and about 58.9% of the risks are the composition of the mechanical parts of the plant. The current study alludes the reasons to the fact that adherence to occupational safety and protection equipment increases the chance of the worker surviving exposure to these risks, and also the direct proximity of the worker to the production machines poses a danger to the worker in the work environment. (Nezamodini et al ., 2019) .

This table (4.16) indicates that the majority of Electric Hazards Domain (60.5 %) was yes (have Electric Hazards) and minority of them (39.5%) were No (haven't Electric Hazards), so the assessment of this domain by Statistical Overall was High Hazard. A study conducted in Ethiopia for cement factory workers agreed on the electrical risks that workers are exposed to during work. The study included about 85% of workers, where the proportion of males was about 90% and females were 10%, and it was found that there are electrical hazards to which workers are exposed. The reasons are likely to the worker's lack of commitment to occupational safety and protection equipment to prevent those electrical hazards that threaten the worker's life. (Kumie et al ., 2016) .

This table (4.17) indicates that the majority of Overall the Health Hazards (all Domain) (55.5 %) was yes (Have a Health Hazards) and minority of them (44.5%) were No (haven't Health Hazards), so the assessment of this domain by Statistical Overall was High Hazard. A study conducted in India on evaluating the impact of all risks to which workers are exposed in cement factories with regard to (physical - chemical - psychological - biological - and environmental risks) in agreement with the current study, where a proportion of risks was recorded at 55.5% who are exposed to risks in cement factories. The reasons are likely that the commitment to occupational safety and protection equipment and to follow

the instructions that prevent the worker from coming into contact with those risks is weak. (Pathak, A. , 2019).

This table **(4.18)** indicates that the majority of using prevention strategies (Safety Equipment) (89 %) was yes (Committed to using prevention strategies) and minority of them (11%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. The present of the study on how to apply occupational health and safety standards in laboratories is agreement. It has shown that a large percentage of workers who have knowledge of how to apply them are less dangerous towards exposure to the risks in cement factories, as the main objective of following protection methods and applying occupational safety means increases workers' awareness of exposure to those risks. (Lees, F. , 2012).

This table **(4.20)** indicates that the majority of using prevention strategies (Places) (70 %) was yes (Committed to using prevention strategies) and minority of them (30%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. They were consistent regarding the worker's commitment to protective equipment and the prevention of exposure to risks and how to deal with them carefully to avoid their impact. We highlight the reasons that the majority of workers who have knowledge are less exposed to risks and are in good health at work. (Ak, M. F., & Gul, M. , 2019).

This table **(4.22)** indicates that the majority of using prevention strategies (Health Requirements) (95 %) was yes (Committed to using prevention strategies) and minority of them (5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment . The study showed represented

(Liu, S. et al ., 2019) it was predicting that the majority of workers who have sufficient experience to deal with risks are from the category that answered with the word yes through the application of prevention strategies for those injuries.

This table **(4.24)** indicates that the majority of using prevention strategies (Working Conditions) (87.5 %) was yes (Committed to using prevention strategies) and minority of them (12.5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. The study agreed with regard to the commitment of workers to equipment or the application of strategies to prevent this injury, so it was found that the more advanced workers in age are less dangerous, and we attribute the reasons to the fact that the increased experience in dealing with risks leads to the reduction or lack of injury resulting from exposure to those risks.(Bataille, C. G. , 2020).

This table **(4.26)** indicates that the majority of using prevention strategies (Exposition) (83 %) was yes (exposed) and minority of them (17%) were No (No exposed), so the assessment of this domain by Statistical Overall was High Exposition. The study (Joensuu, T., Edelman, H., & Saari, A. , 2020) was agreed which indicates that the majority of workers from different job titles who have the ability to understand and explain how to use strategies to prevent risks belonging to workers are less dangerous than others in relation to exposure to those risks.

This table **(4.28)** indicates that the majority of using prevention strategies (Peace Factors) (92 %) was yes (Committed to using prevention strategies) and minority of them (8%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. The study on the application of risk prevention strategies and how to adhere to them, especially the prevention

of mechanical risks to which he is exposed during the work period, is of great importance to prevent injuries resulting from mechanical risks.(Stemn, E. , 2019).

This table **(4.30)** indicates that the majority of using prevention strategies (Emergency Fund) (64 %) was yes (Committed to using prevention strategies) and minority of them (36%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. A study showing compatibility in the case of using the safety and emergency aid box was used perfectly at the moment of exposure to dangers within the laboratory environment, it was a good use.(Şimşek, B., & İç, Y. T. , 2020).

This table **(4.32)** indicates that the majority of using prevention strategies (Industrial Security) (78.5 %) was yes (Committed to using prevention strategies) and minority of them (21.5%) were No (Uncommitted to using the Prevention Strategies), so the assessment of this domain by Statistical Overall was High Commitment. A study was conducted in Pakistan in 2019 on critical risk assessment for workers in cement plants. The study may agree with regard to how to use personal protective equipment to prevent critical injuries to workers and how to control and limit them. The reasons are that preventive measures to protect workers, if they are good, are in the interest of the worker and protect him from risks .(Khan, M et al .,2019).

This table **(4.33)** indicates that the majority of overall the prevention strategies (97%) was Committed to using prevention strategies and minority of them (3%) were Uncommitted to using the Prevention Strategies, so the assessment of this domain by Statistical Overall was High Commitment. A study in India agreed on developing plans and strategies about the mechanism for applying occupational safety and health standards with regard to workers'

exposure to all risks and how to prevent them. The study emphasized the importance of implementing these plans to address exposure to these risks . (Choudhary, D., Tripathi, M., & Shankar, R. , 2019).

The table (4.34) reveals that there is a highly significant association between the overall Health Hazards of Workers and their demographic characteristics (Level of Education and department), at p-value <0.01 while there is a non-significant relationship with remaining demographic (gender, age, marital status, residency area, job title, Number of years in service, Working Hours and Shaft of Work). According to a study conducted regarding the existence of a relationship between risks and the level of education among workers, except if they were engineers, workers or administrators, it was found that the level of learning increases the understanding of workers in cement factories on understanding risks and how to deal with those risks and avoid them. The higher the level of learning, the lower the level of risk to workers in the laboratory environment. (Shanshal, S. A., & Al-Qazaz, H. K. , 2020).

The table (4.35) presents that there is a highly significant association between the overall Health Hazards of Workers and all Domains of medical History, at p-value <0.01 while there is a non-significant relationship with first domain of Prevention Strategies. A study regarding the relationship between all risks exposure by workers in the cement factory environment and the worker's medical history regarding absenteeism from work due to ill health or exposure to acute and chronic diseases and other chronic diseases that affect workers during work. We summarize the importance of the relationship, and in line with the current study, that long work periods lead to future diseases among workers and may be considered as a medical history for the patient during work. (Fellone, L., & Battista, G. ,2019).

The table (4.41) presents that there is a highly significant association

between the overall Strategies of Prevention of Workers and their demographic characteristics (age, gender, job title, monthly income, marital status and Number of years in service, at p-value <0.01 while there is a non-significant relationship with remaining variables of demographic. In agreement with the study regarding the effect of workers' age, number of years of service, and monthly income on the level of workers' performance within the work environment. I concluded that the progress in the number of years of service increases the chance of injury to the worker while working, as well as the impact of the monthly income, because the work system is productive, as the production increases, the monthly income increases. Therefore, the increase in the monthly income is linked to the increase in working hours, and thus increases the chance of more exposure to risks in the work environment. (Leghari, S. K et al ., 2019).

The table (4.42) presents that there is non-significant association between the overall Strategies of Prevention of Workers and all Domains of medical History, at p-value <0.05 . With regard to the existence of a weak relationship between all stages of exposure to risks of various kinds (physical, chemical, biological, psychological, mechanical, electrical) with the worker's medical history. Because of the nature of the worker's medical history in terms of genetic factors with regard to chronic diseases and other diseases. It does not correspond to how the prevention strategies against these risks are implemented. Or in terms of what was previously mentioned during the interpretation of the results that the workers who are more are the highest level of understanding the mechanism of application Occupational health and safety standards are less likely to be injured during work, but the links that emerged are the result of workers' information that was written down by workers and how their job performance. Therefore, to ensure the good health of workers, workers must adhere to prevention strategies for these risks, which increase the chance of the worker enjoying good health at work.---

Conclusions and Recommendations

Conclusions

1. The study found that the majority of cement workers who participated in the study are in the 35-year age group and are in the male category
2. The study found a correlation between the number of years of service and knowledge in the management of workers' risks in the working environment.
3. The Governmental cement factories were more exposed to physical, chemical and psychological risks, while they were less exposed to biological hazards .
4. The study concluded that there is a correlation between workers' level of learning and how they cope in avoiding those risks to which they are exposed within the working environment.
5. The study found a moderate correlation between variables relating to workers' medical history of absenteeism due to ill health during work.
6. The study concluded that there was an important statistical relationship between workers' chemical risks and how they were affected.
7. The study found that there is a moderate correlation between biological risks and their impact on risk management strategies during work.
8. The study found an important statistical relationship with workers regarding psychological risks during work.
9. The study found a high level of correlation between knowledge about protective equipment and personal safety and workers' exposure to risks in the working environment

10. The study found a variable relationship between the variable occupational health care services of workers and the risks to which they are exposed within the working environment.
11. The study concluded that there is a very important relationship between physical risks and their impact on workers in the working environment.

Recommendations

1. Activate the role of continuous vocational education for employees with different functional headings to increase occupational health awareness of the direction of risks to avoid exposure to them.
2. Attracting workers with a higher level of education with at least one middle school graduate and above.
3. To encouragement workers to follow up periodically on the procedures for examination of the health variables affected by the workers.
4. Adherence to occupational prevention and safety strategies and emphasis on their importance to reduce exposure to occupational risks to workers in the working environment
5. Increase health awareness programs about the risks of work and clarify the positives of adherence to and application of personal protective equipment to avoid various work risks (physical, chemical, biological, mechanical and electrical) .
6. Programs to develop the performance of employees, provide psychological support and improve performance in case of exposure to psychological risks.
- 7 Increase the warning signs in the various sections of the plant about the risks to avoid them and provide a suitable and safe environment for the worker.

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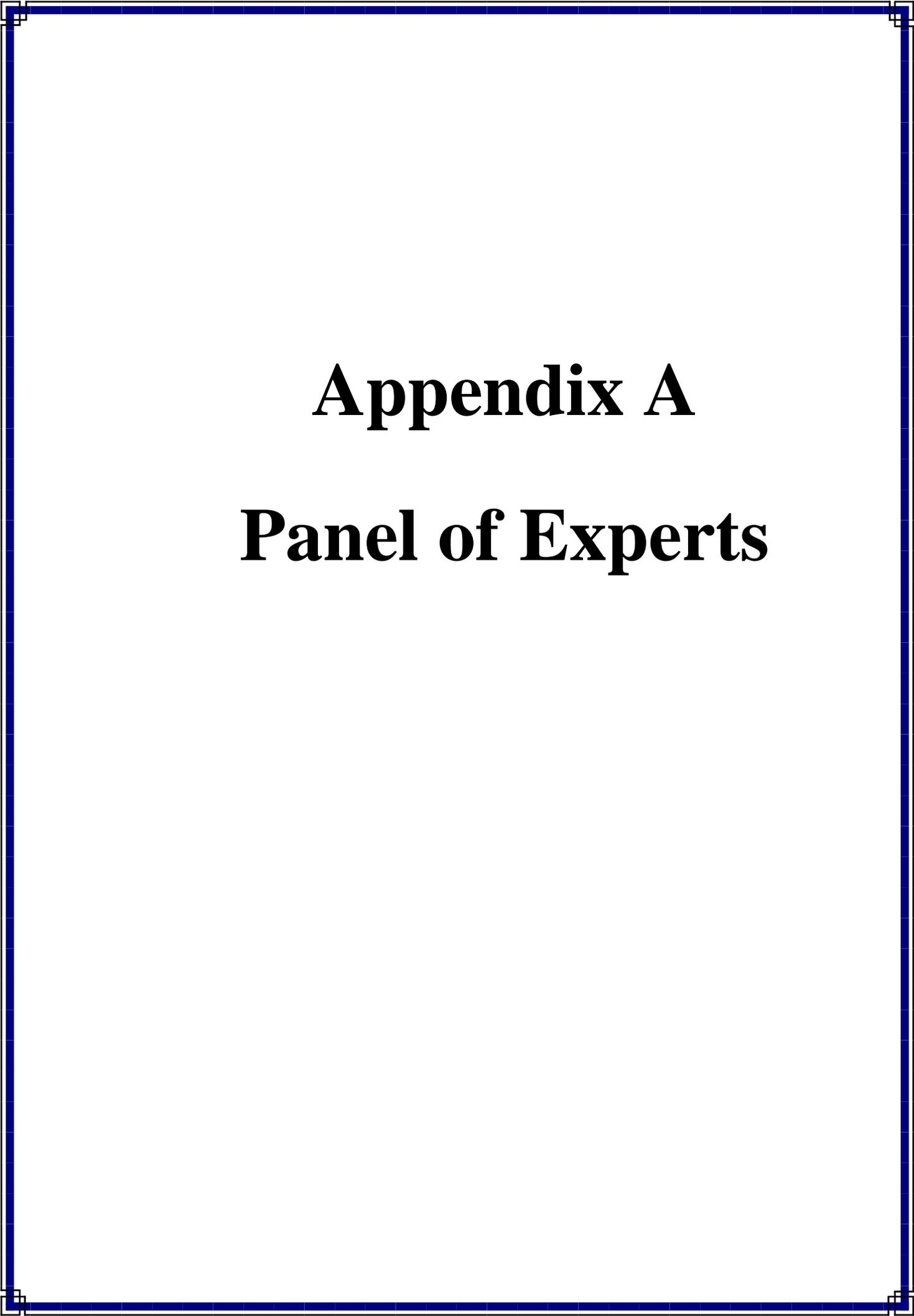
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Appendices

Appendix A: Panel of Experts

Appendix B: Administrative Arrangements

**Appendix C: Questionnaire of occupational health
hazards**



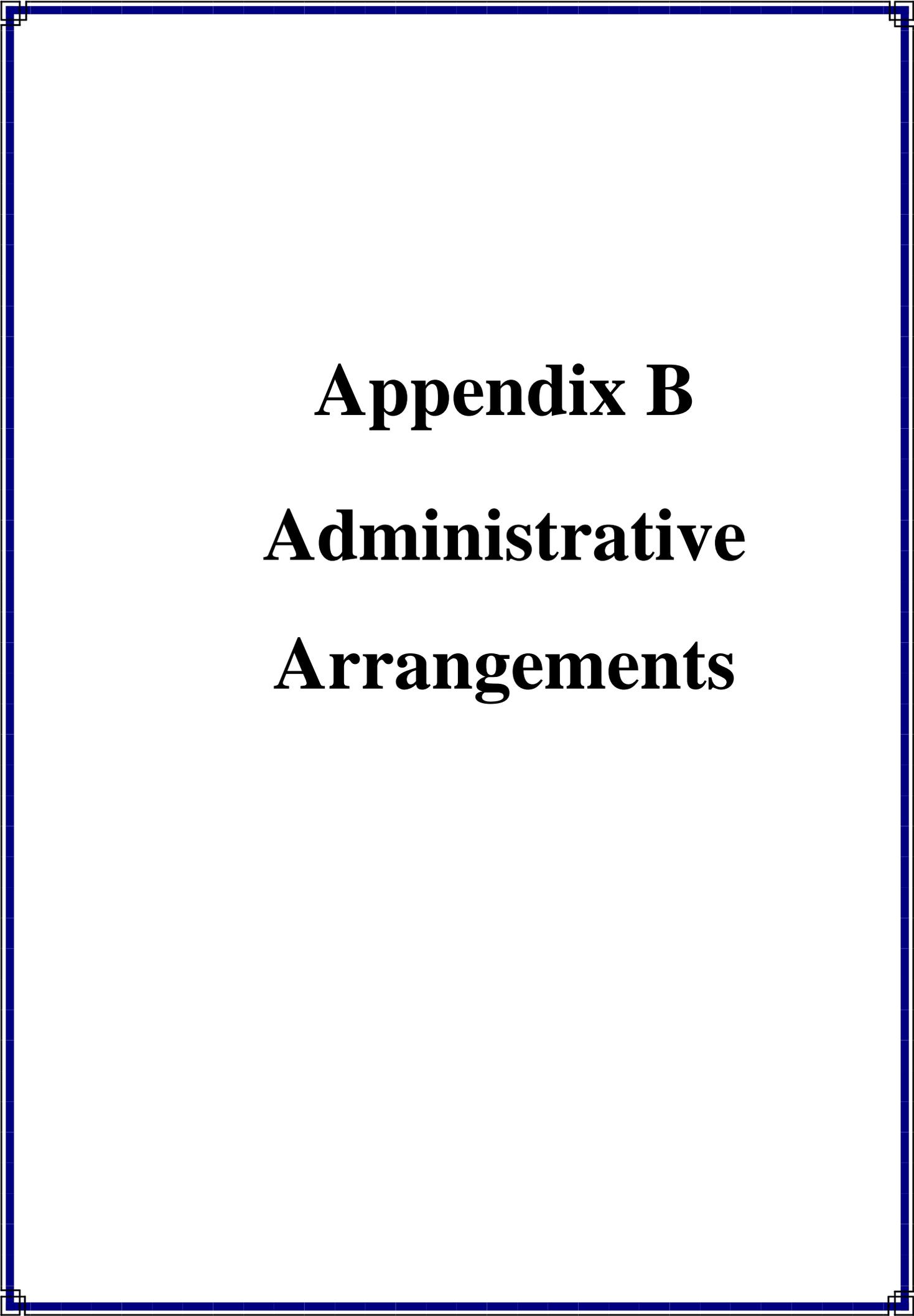
Appendix A

Panel of Experts

Appendix A: Panel of Experts

خبراء تحكيم استمارة الاستبيان

الاختصاص الدقيق	مكان العمل	اللقب	اسم الخبير	ت
طب المجتمع	جامعة الكوفة كلية الطب	أستاذ	د. عبد الكريم عبد الله محمود	1
طبيب صحة مجتمع	دائرة صحة النجف الاشرف	طبيب	د. حميد الحدراوي	2
طبيب صحة مجتمع	وزارة الصحة العراقية	طبيب	محمد جبر حويل الطائي	3
تمريض بالغين	كلية الزهراوي الجامعة	أستاذ	د. نظيرة حسين علوان	4
تمريض صحة المجتمع	جامعة رابين كلية تمريض	أستاذ مساعد	د. سناء حسن	5
تمريض صحة المجتمع	كلية الطوسي الجامعة	أستاذ مساعد	د. كافي محمد ناصر	6
تمريض صحة المجتمع	جامعة بغداد كلية التمريض	أستاذ	د. وسام جبار قاسم	7
تمريض صحة مجتمع	جماعة وارث الانبياء	استاذ مساعد	ا.م مرتضى غانم الجبوري	8
تمريض صحة مجتمع	جامعة الكوفة كلية التمريض	استاذ مساعد	منصور فلاح عبدالله	9
تمريض صحة مجتمع	جامعة العميد كلية التمريض	استاذ مساعد	رضا الطائي	10
صحة مجتمع	وزارة الصحة	دكتوراه	د. احلام كاظم حسين	12



Appendix B

Administrative

Arrangements

Appendix B: Administrative Arrangements

Ministry of Higher Education
and Scientific Research

جامعة البصرة
وزارة التعليم العالي والبحث العلمي

University of Babylon
College of Nursing

جامعة بابل
كلية التمريض
لجنة الدراسات العليا

Ref. No. :
Date: / /

العدد : ١٠٥٧
التاريخ : ٢٠٢١ / ٤ / ٦

معمل اسمنت الكوفة
معمل اسمنت النجف
م / تسهيل مهمة

تحية طيبة :
يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالب الدكتوراه
(غسان عدنان هاشم عذاب) لغرض جمع عينة دراسة الدكتوراه والخاصة
بالبحث الموسوم :
استراتيجيات الرعاية الصحية الوقائية المتعلقة بالمخاطر الصحية المهنية بين
العاملين في مصانع الاسمنت في محافظة النجف الأشرف

Strategies of Prevention Health Care Related to Occupational Health
Hazards among Workers at Governmantal Cement Factories in Holly al –
Najaf Governorate

مع الاحترام ...

المرافقات //
• البروتوكول
• استبانة

ا.م.د. حسام عباس داود
معاون العميد للشؤون العلمية والدراسات العليا
٢٠٢١ / ٤ / ٦

صورة عنه الى //
• مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
• لجنة الدراسات العليا
• الصادرة .

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جامعة بابل
UNIVERSITY OF BABYLON

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كلية التمريض
لجنة الدراسات العليا

Ref. No. :
Date: /

الجدد : ١٠٥٧
التاريخ : ٢٠٢١ / ٤ / ٦

المستقبل
الاستاذ المساعد الدكتور
داود حسام عباس داود

الى / معمل اسمنت الكوفة
معمل اسمنت النجف
م / تسهيل مهمة

تحية طيبة :
يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالب الدكتوراه
(غسان عدنان هاشم عذاب) لغرض جمع عينة دراسة الدكتوراه والخاصة
بالبحث الموسوم :

استراتيجيات الرعاية الصحية الوقائية المتعلقة بالمخاطر الصحية المهنية بين
العاملين في مصانع الاسمنت في محافظة النجف الأشرف

Strategies of Prevention Health Care Related to Occupational Health
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Najaf Governorate

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// المرافقات
• البروتوكول
• استبانة

ا.م.د. حسام عباس داود
معاون العميد للشؤون العلمية والدراسات العليا
٢٠٢١ / ٤ / ٦

الشركة العامة لاسمنت العراقية
معمل سمّنت النجف الأشرف
الوارد
العدد : ١٧٨٦
التاريخ : ٢٠٢١ / ٤ / ٦

صورة عله الى //
• مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
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Appendix B: Administrative Arrangements

Ministry of Higher Education and Scientific Research
جامعة البصرة
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University of Babylon
College of Nursing
جامعة بابل
كلية التمريض
لجنة الدراسات العليا

Ref. No. :
Date: / /

العدد: ١٠٥٧
التاريخ: ٤ / ٤ / ٢٠٢١

م/ تسهيل مهمة
معمل اسمنت النجف
معمل اسمنت الكوفة

تمتية طبية:

يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالب الدكتوراه (غسان عدنان هاشم عذاب) لغرض جمع عينة دراسة الدكتوراه والخاصة بالبحث الموسوم:

استراتيجيات الرعاية الصحية الوقائية المتعلقة بالمخاطر الصحية المهنية بين العاملين في مصانع الاسمنت في محافظة النجف الأشرف

Strategies of Prevention Health Care Related to Occupational Health Hazards among Workers at Governmantal Cement Factories in Holly al – Najaf Governorate

مع الاحترام ...

المرافقات //
• البروتوكول
• استبانة

م.م. حسام عباس داود
معاون العميد للشؤون العلمية والدراسات العليا
٢٠٢١ / ٤ / ٦

الشركة العامة للاسمنت العراقية
معمل اسمنت النجف الأشرف
السوارد
العدد: ١٦٨٦
التاريخ: ٤ / ٤ / ٢٠٢١

صورة عنه الى //
• مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
• لجنة الدراسات العليا
• المصادرة .

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Appendix C

Questionnaire of

occupational health

hazards

Questionnaire for the research:

Strategies of prevention health care related occupational hazards among workers at cement government factories in AL-Najaf city "

Objectives the study:

1. To find out the occupational hazards among the study sample
- 2-To assess the strategies for preventing occupational hazards related to the health status.
- 3-To find out the association between the socio-demographic characteristics of the study sample and the type of occupational hazards.

Part 1 :demographic information

Sample Number:

1. worker Personal information:

1.1.age:

1.2.gender:

Male Female

1.3.Marital status:

Married Single Divorced widow(er)

1.4. Number of years in service: years

1.5.Monthly Income:

Enough Fairly Enough Not Enough

1.6.Resident:

Urban Rural

1.7.Job Title:

Worker Chief Workers Observer Technician Chief
Observers Technician Assistant Engineer Engineer
Chief Engineer

1.8.Educational level:

doesn't read and write read and write Elementary
secondary preparatory Institute graduate
Bachelor Higher Education

Part 2: Health Care Facilities:

What are the health services provided to them?

1. Did you do a regular health checkup (monthly, bi-monthly, weekly)
2. Is there a permanent presence of the doctor or nurse inside the laboratory:
3. Have you ever used a treatment for chronic diseases that you suffer from:
4. Did you take maternity leave (for women):
5. Do you have health insurance:
6. Have you ever received viral liver vaccinations:
7. Is there a health care center inside the workplace:
8. Is there a first aid box at the work site:
9. Is there a place designated for eating:

Part 3: Health Hazard

Question: have you faced any of these health issues during work?

Note: please make sure the answer does not involve the issues that happened outside work time.

First: physical Hazard.

1. Is there noise at the workplace:
2. Is the lighting level appropriate:
3. Is the work environment clean:

Appendix C: Questionnaire of occupational health hazards

4. Is there excessive heat in the work environment:
5. Is ventilation sufficient:
6. Are there emergency exits:
7. Is there good ventilation in the work environment?
- 8-**Are there safety limits according to the competent authorities Have you been exposed to heat stress
- 9_** Are there changes in the atmospheric pressure in the work environment
- 10_** Have you been exposed to a fire during work
- 11_** Have you been exposed to harmful and dangerous radiation during work

Second: Chemical Hazard

1. Have you been exposed to dust:
2. Have you been exposed to toxins :
3. Have you been inhaled dust :
4. Have you been exposed to dangerous chemicals (dust, fumes, Gases or smoke):
5. Have you had a respiratory allergy:
6. Have you ever had a skin allergy:
- 7-Are there warning signs in the work environment
- 8- Are there units of measurement for the chemical pollution environment

Third: biological hazards

1. Have you had a needle-related injury:
2. Have you been injured at work:
3. I got slipped during my work:
4. Have you suffered burns while working
5. Did you suffer from malnutrition:
6. Have you been exposed to communicable diseases (bacteria, virus, Infectious diseases):
7. Have you been exposed to a respiratory infection Have you been exposed to a respiratory infection:
8. Have you been exposed to tuberculosis:
9. Have you been exposed to a viral fever:

Fourth: Psychological Hazards

1. Have you been subjected to stress during work:
2. Did you suffer from psychological problems during work:
3. Were workers treated in a single manner during work:
4. Have you been stressed at work:
5. Did you find inequality in the work environment:
6. Have you been stressed as a result of work:
7. Have you experienced orthopedic problems or muscle problems
8. Have you been exposed to alcohol or drug addiction

9. Did you find an increase in work productivity
10. Did you find a decrease in work productivity

Fifth :Mechanical hazard

- 1- Are there special procedures for machines
- 2- Have you been exposed to the hazards of machines and mechanical equipment
- 3- Are you exposed to manual equipment while working
- 4- Have you been exposed to risks of conveyor equipment and
- 5- Are ladders safe in the work environment
- 6- Are you using seat belts while working at height

Six: Electric hazard

- 1 - have you been exposed to electric shocks while working
- 2_ Are there personal equipment while working near the electrical sites
- 3_ Are there sources of energy and put signs of knowledge on it

Part 4: Strategies of prevention of occupational health hazard

(1) While performing your work, you shall abide by the following safety equipment according to the nature of the work

1. Helmet or headgear
2. Eye goggles
3. Face mask
4. Earplugs

5. Safety belts

6. Hand gloves

7. Safety shoes

8. Respirators

9. Protective clothing

(2) The following places are available within the facility:

1. A place or lounge to eat

2. A place to change clothes

3. Bathrooms that meet the sanitary conditions

4. Male and female bathrooms

5. A place to shower if the nature of work requires it

6. Medical clinic

(3) The facility shall meet the following health requirements:

1. Drinking water

2. Heating devices in winter

3. Coolers in summer

4. Garbage bins to collect waste

(4) The following working conditions inside the facility are suitable for work

1. Natural lighting
2. Industrial lighting
3. Ventilation
4. Temperature
5. Humidity degree
6. Hygiene
7. Break period

(5) You are exposed, while performing your work, to the following working conditions:

1. Noise
2. Dust
3. Fume
4. Gases such as carbon dioxide
5. Radiation (such as light from the welding process)

(6) Strategies of the peace factor in the machines, tools and tools used in the work

1. The machines available inside the work are designed in a way that ensures the safety of workers

2. The machines are operated inside the facility by specialists or under their supervision
3. There is enough space around the machines and machines to allow the passage of workers and not hinder the performance of their work
4. The machines are stopped and the power is cut off when they are maintained
5. The machines used are fireproof
6. There are guidance panels next to the machines in the workplace to guide workers to the correct way of working
7. The tools and tools used in the work are durable and free from defects
8. The staff was instructed and trained to use and maintain the

(7) The emergency fund and its supervision inside the facility

1. The appropriate number of ambulance boxes is available inside the facility
2. The ambulance box(s) are located in easily accessible places
3. The necessary materials and medicines are available inside the emergency box
4. The responsibility of supervising the ambulance box is assumed by a person from within the facility who is familiar with how to use materials and medicines

5. The supervisor of the emergency fund is present during working hours

(8)- The role of management in promoting and applying the concept of industrial security

1. The administration shall make sufficient efforts to ensure the health and safety of employees

2. The administration conducts preliminary medical examinations (before employment) for the employee

3. The administration conducts periodic medical examinations (every certain period of time) for the employees

4. The department provides brochures and brochures related to industrial security

5. The management always provides the necessary safety equipment for work

6. Management responds to employee suggestions regarding safety and security at work

7. The administration holds training courses for security and safety at work

8. The management educates the employees about the nature of the materials used.

Appendix C: Questionnaire of occupational health hazards

الجزء الأول: المعلومات الديموغرافية

1:المعلومات الشخصية للعامل

1.1:العمر

1.2:جنس

الذكور الإناث

1.3:الحالة الزوجية

متزوج وأرملة مطلقة وحيدة

1.4: عدد سنوات الخدمة: سنوات

1.5:الدخل الشهري

كفى إلى حد ما كافي ليس كافيًا

1.6:السكن .

الحضر الريف

1.7: عنوان الوظيفي

عامل رئيس عمال مراقب فني رئيس

مراقبي فني مساعد مهندس مهندس

رئيس مهندسين

1.8:المستوى التعليمي

لا يقرأ ويكتب يقرأ ويكتب ابتدائي

ثانوي إعدادي خريج معهد بكالوريوس

تعليم عالي

1.9:قسم

1.10: ساعات العمل: ساعات .

1.11 : شفت العمل : صباح الليل .

2:المشاكل الصحية .

2.1:هل تغيب عن العمل بسبب المرض

2.2:هل تركت العمل بسبب إعاقة

Appendix C: Questionnaire of occupational health hazards

- 2.3: هل توقفت عن العمل بسبب مرض مزمن
- 2.4: هل توقفت عن العمل بسبب عملية جراحية سابقة
- 2.5: هل تتناول أي دواء أو علاج أو علاج طبيعي
- 2.6: (هل عانيت من أي مرض جلدي (إكزيما أو حساسية
- 2-7 هل عانيت من أي مشاكل في التنفس (الربو أو السل أو السعال المستمر) في العام الماضي .

2.8: هل توقفت عن العمل بسبب مرض معدي

2.9: هل تعرضت لإصابة كبيرة

الجزء الثاني: مرافق الرعاية الصحية

ما هي الخدمات الصحية المقدمة لهم؟

1- (هل أجريت فحصًا صحيًا منتظمًا (شهريًا ، نصف شهريًا ، أسبوعيًا

2: هل هناك حضور دائم للطبيب أو الممرضة داخل المختبر

3: هل سبق لك استخدام علاج للأمراض المزمنة التي تعاني منها

4: (هل حصلت على إجازة أمومة (للنساء

5: هل لديك تأمين صحي

6: هل تلقيت من قبل لقاحات الكبد الفيروسي

7: هل يوجد مركز رعاية صحية داخل مكان العمل

8: هل يوجد صندوق إسعافات أولية في موقع العمل

9: هل يوجد مكان مخصص للأكل

الجزء 3: المخاطر الصحية

سؤال: هل واجهت أيًا من هذه المشكلات الصحية أثناء العمل؟

ملاحظة: يرجى التأكد من أن الإجابة لا تتضمن المشكلات التي حدثت خارج

أوقات العمل

.

:.أولاً: الخطر الجسدي

- 1: هل توجد ضوضاء في مكان العمل
- 2: هل مستوى الإضاءة مناسب
- 3: هل بيئة العمل نظيفة
- 4: هل توجد حرارة زائدة في بيئة العمل
- 5: هل التهوية كافية
- 6: هل توجد مخارج للطوارئ
- 7: هل هناك تهوية جيدة في بيئة العمل؟
- 8: هل هناك حدود للسلامة حسب الجهات المختصة هل تعرضت لضغط حراري
- 9: هل هناك تغيرات في الضغط الجوي في بيئة العمل
- 10: هل تعرضت لحريق اثناء العمل
- 11: هل تعرضت للإشعاع الضار والخطير اثناء العمل

ثانياً: الخطر الكيميائي

- 1: هل تعرضت للغبار .
- 2: هل تعرضت للسموم .
- 3: هل تم استنشاق الغبار .
- 4: (هل تعرضت لمواد كيميائية خطيرة (غبار أو أبخرة أو غازات أو دخان .
- 5: هل عانيت من حساسية الجهاز التنفسي .
- 6: هل عانيت من أي وقت مضى من حساسية الجلد .
- 7: هل توجد علامات تحذيرية في بيئة العمل
- 8: هل توجد وحدات قياس لبيئة التلوث الكيميائي

ثالثاً: الأخطار البيولوجية

- 1: هل تعرضت لإصابة مرتبطة بالإبرة .
- 2: هل تعرضت للإصابة في العمل .

Appendix C: Questionnaire of occupational health hazards

- 3: انزلقت أثناء عملي .
 - 4: هل عانيت من حروق أثناء العمل
 - 5: هل عانيت من سوء التغذية .
 - 6: (هل تعرضت لأمراض معدية (بكتيريا، فيروسات، أمراض معدية .
 - 7: هل تعرضت لعدوى في الجهاز التنفسي. هل تعرضت لعدوى بالجهاز التنفسي
 - 8: هل تعرضت لمرض السل .
 - 9: هل تعرضت لحمى فيروسية
- رابعاً: الأخطار النفسية
- 1: هل تعرضت لضغوط أثناء العمل .
 - 2: هل عانيت من مشاكل نفسية أثناء العمل .
 - 3: هل تمت معاملة العمال بطريقة واحدة أثناء العمل -
 - 4: هل تعرضت للتوتر في العمل .
 - 5: هل وجدت عدم المساواة في بيئة العمل .
 - 6: هل تعرضت للتوتر نتيجة العمل .
 - 7: هل عانيت من مشاكل في العظام أو مشاكل في العضلات .
 - 8: هل تعرضت لإدمان الكحول أو المخدرات .
 - 9: هل وجدت زيادة في إنتاجية العمل .
 - 10: هل وجدت انخفاضاً في إنتاجية العمل .
- خامساً: المخاطر الميكانيكية
- 1: هل هناك إجراءات خاصة بالآلات
 - 2: هل تعرضت لمخاطر الآلات والمعدات الميكانيكية -
 - 3: هل تتعرض للأجهزة اليدوية أثناء العمل -
 - 4: هل تعرضت لمخاطر معدات النقل و -
 - 5: هل السلالم آمنة في بيئة العمل -5
 - 6: هل تستخدم حزام الأمان أثناء العمل على ارتفاع -
- سادساً: الخطر الكهربائي
- 1: هل تعرضت لصدمات كهربائية أثناء العمل
 - 2: هل يوجد معدات شخصية أثناء العمل بالقرب من المواقع الكهربائية
 - 3: هل توجد مصادر للطاقة ونضع عليها علامات المعرفة _

: الجزء الرابع: استراتيجيات الوقاية من مخاطر الصحة المهنية
أثناء قيامك بعملك ، يجب عليك الالتزام بمعدات السلامة التالية وفقاً لطبيعة العمل

1:خوذة أو غطاء رأس .

2:نظارات واقية للعين .

3:قناع الوجه .

4:سدادات الأذن .

5:أحزمة الأمان .

6:قفازات اليد

7:أحذية السلامة .

8:الكمادات .

9:الملابس الواقية

2:الأماكن التالية متوفرة داخل المنشأة

1:مكان أو صالة للأكل .

2:مكان لتغيير الملابس .

3:الحمّامات المستوفية للشروط الصحية .

4:حمّامات الذكور والإناث .

5:مكان للاستحمام إذا كانت طبيعة العمل تتطلب ذلك .

6:عيادة طبية

3:يجب أن تستوفي المنشأة المتطلبات الصحية التالية

1:مياه الشرب .

2:أجهزة تدفئة في الشتاء .

3:مبردات في الصيف .

4:صناديق قمامة لجمع النفايات .

4: ظروف العمل التالية مناسبة للعمل داخل المنشأة

1:الإضاءة الطبيعية .

2:الإضاءة الصناعية .

3:التهوية .

4:درجة الحرارة .

5:درجة الرطوبة .

6:النظافة .

7:فترة الراحة .

5:تتعرض أثناء أداء عملك لظروف العمل التالية

1:الضوضاء .

2:الغبار .

3:دخان .

4:غازات مثل ثاني أكسيد الكربون

5:(الإشعاع (مثل الضوء من عملية اللحام .

6-استراتيجيات عامل السلام في الآلات والأدوات والأدوات المستخدمة في

العمل

1:تم تصميم الآلات المتوفرة داخل العمل بطريقة تضمن سلامة العمال .

2:يتم تشغيل الآلات داخل المنشأة بواسطة متخصصين أو تحت إشرافهم .

3:وجود مساحة كافية حول الآلات والآلات للسماح بمرور العمال وعدم إعاقة أداء .

عملهم

4:توقفت الآلات وانقطع التيار الكهربائي عند صيانتها .

5:الآلات المستخدمة مقاومة للحريق .

6:توجد لوحات إرشادية بجانب الآلات في مكان العمل لتوجيه العمال إلى طريقة العمل .

الصحيحة

7:الأدوات والأدوات المستخدمة في العمل متينة وخالية من العيوب .

8:تم توجيه وتدريب الموظفين على استخدام وصيانة .

7: صندوق الطوارئ والإشراف عليه داخل المنشأة

- 1: يتوفر العدد المناسب من صناديق الإسعاف داخل المنشأة .
- 2: يوجد صندوق (صناديق) الإسعاف في أماكن يسهل الوصول إليها .
- 3: تتوفر المواد والأدوية اللازمة داخل صندوق الطوارئ .
- 4: مسؤولية الإشراف على صندوق سيارة الإسعاف يتحملها شخص من داخل المنشأة .
على دراية بكيفية استخدام المواد والأدوية
- 5: حضور مشرف صندوق الطوارئ خلال ساعات العمل .

8: دور الإدارة في تعزيز وتطبيق مفهوم الأمن الصناعي

- 1: تبذل الإدارة جهوداً كافية لضمان صحة الموظفين وسلامتهم .
 - 2: تجري الإدارة الفحوصات الطبية الأولية (قبل التوظيف) للموظف .
 - 3: تجري الإدارة فحوصات طبية دورية (كل فترة زمنية) للموظفين .
 - 4: يقوم القسم بتزويد الكتيبات والمطويات المتعلقة بالأمن الصناعي .
 - 5: توفر الإدارة دائماً معدات السلامة اللازمة للعمل .
- :تستجيب الإدارة لاقتراحات الموظفين فيما يتعلق بالسلامة والأمن في العمل .
- 7: تعقد الإدارة دورات تدريبية للأمن والسلامة في العمل
 - 8: تقوم الإدارة بتثقيف الموظفين حول طبيعة المواد المستخدمة

Appendix D

Ministry of Higher Education and Scientific Research
جامعة البصرة
وزارة التعليم العالي والبحث العلمي

University of Babylon
College of Nursing
جامعة بابل
كلية التمريض
وحدة الدراسات العليا

Ref. No.:
Date:

1779 : العدد
2022/4/1 : التاريخ

QR Code

جامعة البصرة
كلية التمريض
مكتب السيد العميد

الى /جامعة بابل / كلية التربية الأساسية - مكتب السيد العميد
م/ مقوم لغوي

تحية طيبة :
يرجى التفضل بتحديد عضو هيئة تدريس في كليتكم لغرض تقويم رسالة الدكتوراه للطالب
(علاء صبيح محيل صبير) والموسومة ب
(برنامج تثقيفي فعال حول معرفة المرضى فيما يتعلق بعوامل خطر الإصابة بأمراض القلب
التاجية في مركز النجف لجراحة القلب والتدخل القسطاري)

Effective Education Program About Patients Knowledge Regarding Risk Factors
of Coronary Heart Disease at AL-Najaf Center for Cardiac Surgery and Trans
Therapy.

مع الاحترام ...

السيد العميد المحترم
تفضلتكم بالذات
اللذان
مع بلهتكم

أ.د. أمين عجيل ياسر الياسري
العميد
2022/4/1

سنة 2022
مكتب السيد العميد المحترم
مكتب السيد العماد العظمي المحترم
المستقرة القريبة
وحدة الدراسات العليا

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وطني
الكلية

Appendix E

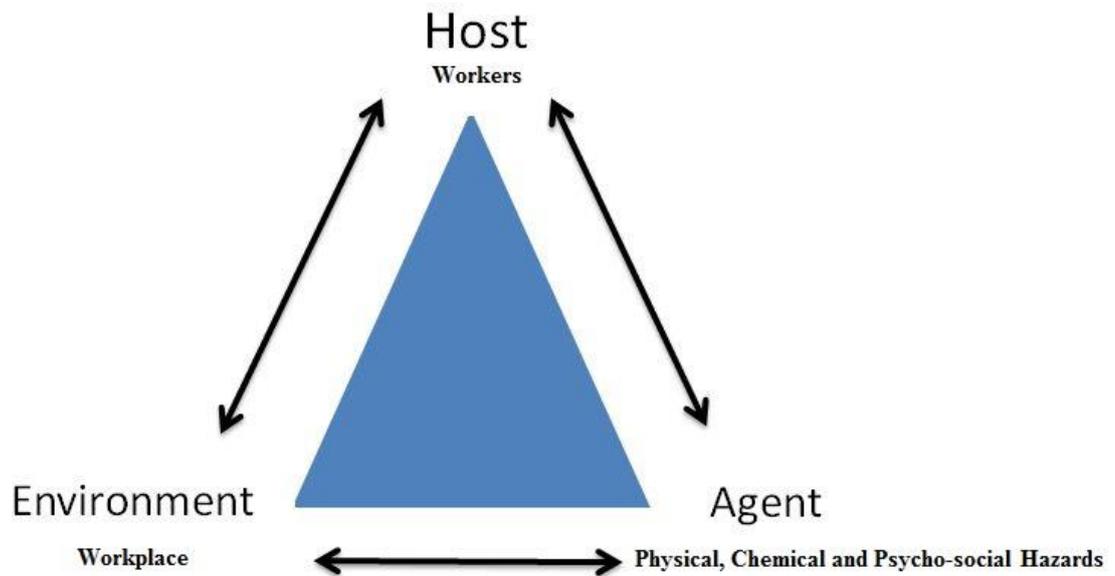


Figure The epidemiological model. *Adopted from Public Health Nursing.* (Stanhope & Lancaster ., 2012).



Figures distribution of hazards in occupational work

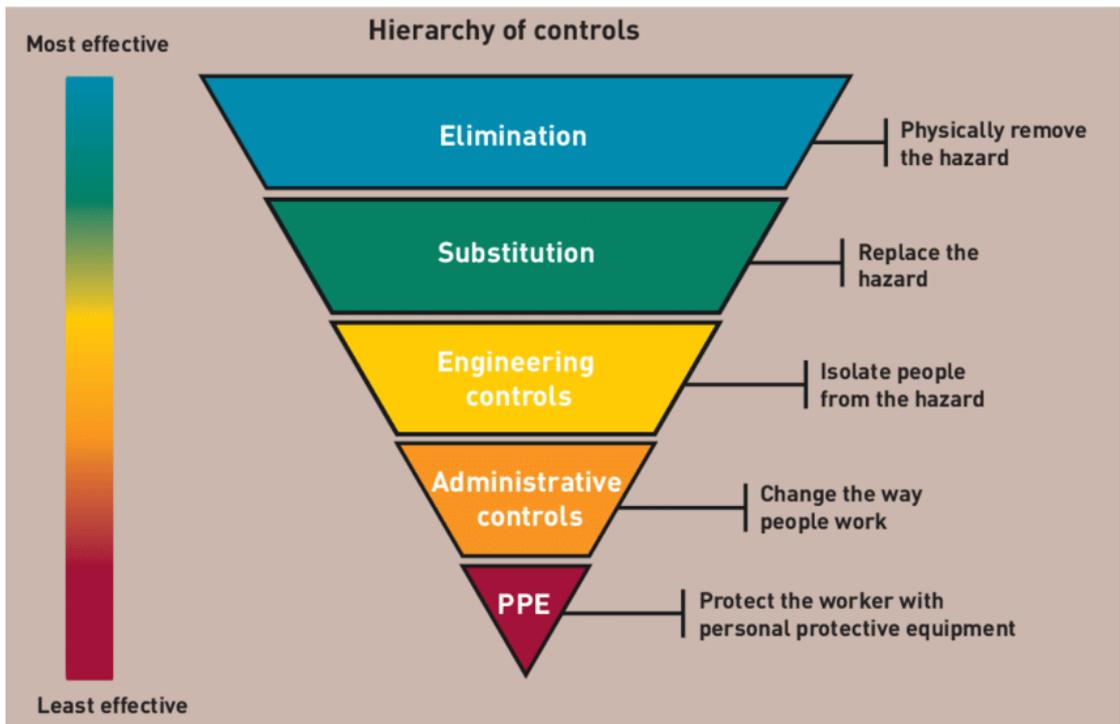
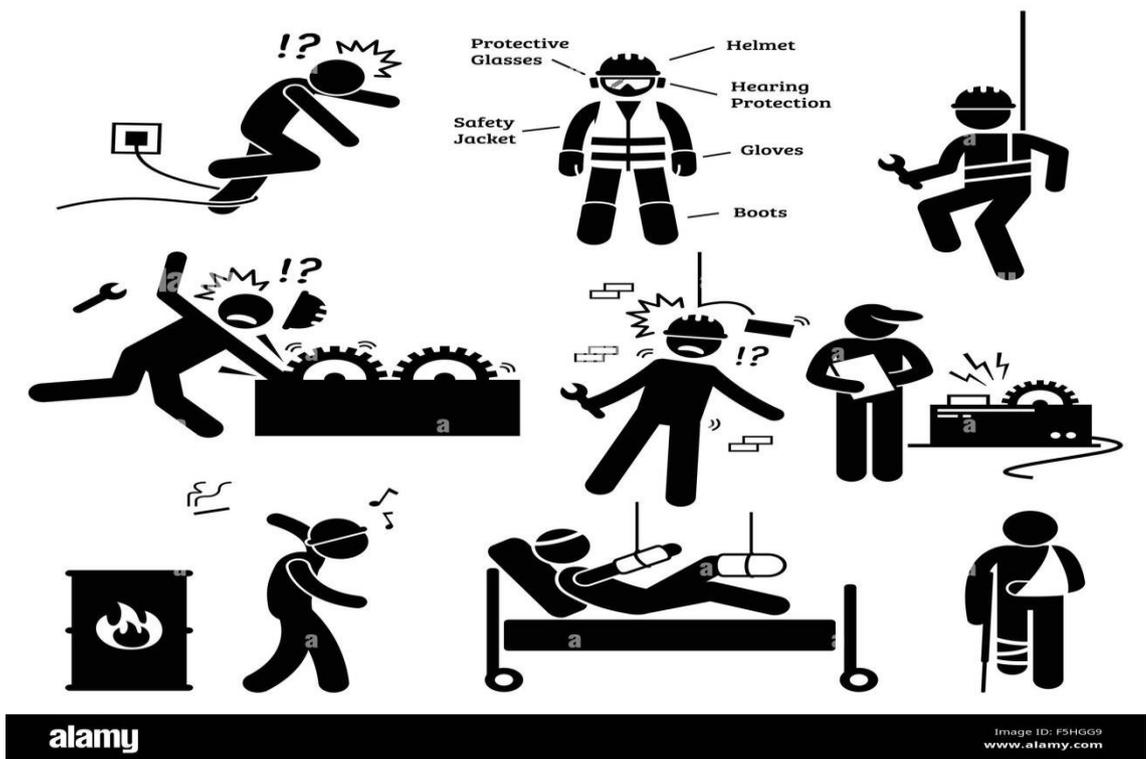


Figure Controlling-openings to-word related risks a-recommended order of-controls-strategies.



Figures represented of type of physical hazards in environment of work.

Appendix E:

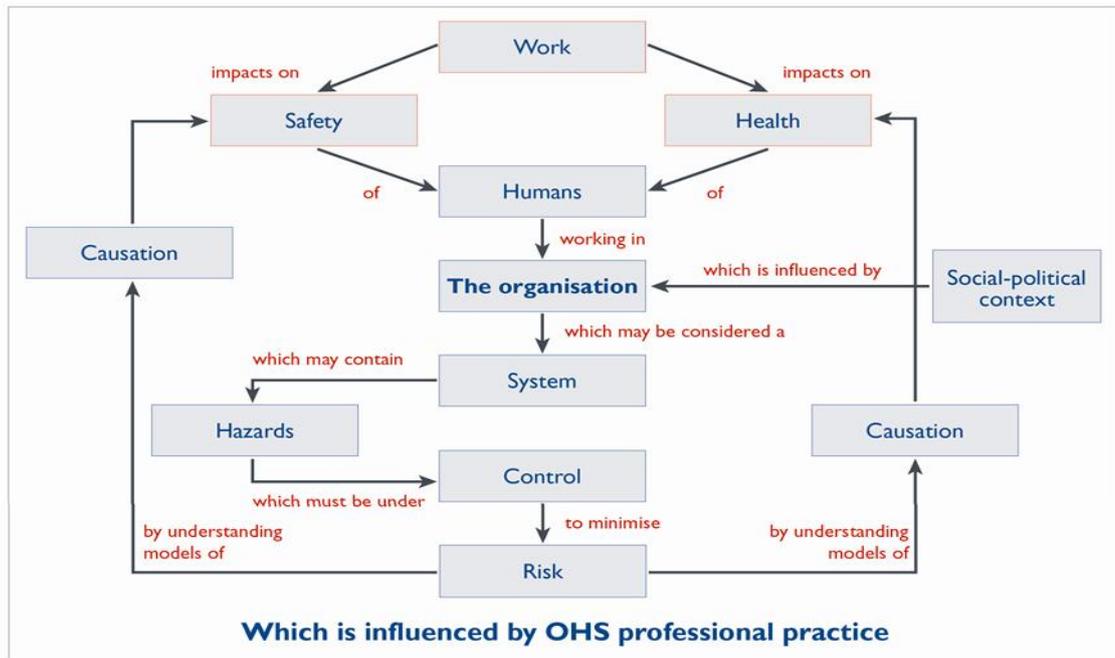
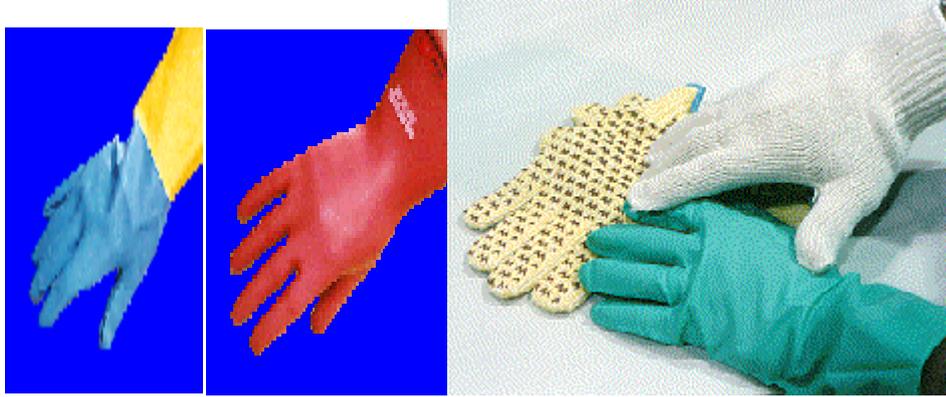


Figure influenced by OHS professional practice.



Figure explain of the how to apply of the safety equipment at work.

Appendix E:



Calves Hand Protection



Head protection



Eyes protection



Foot Protection

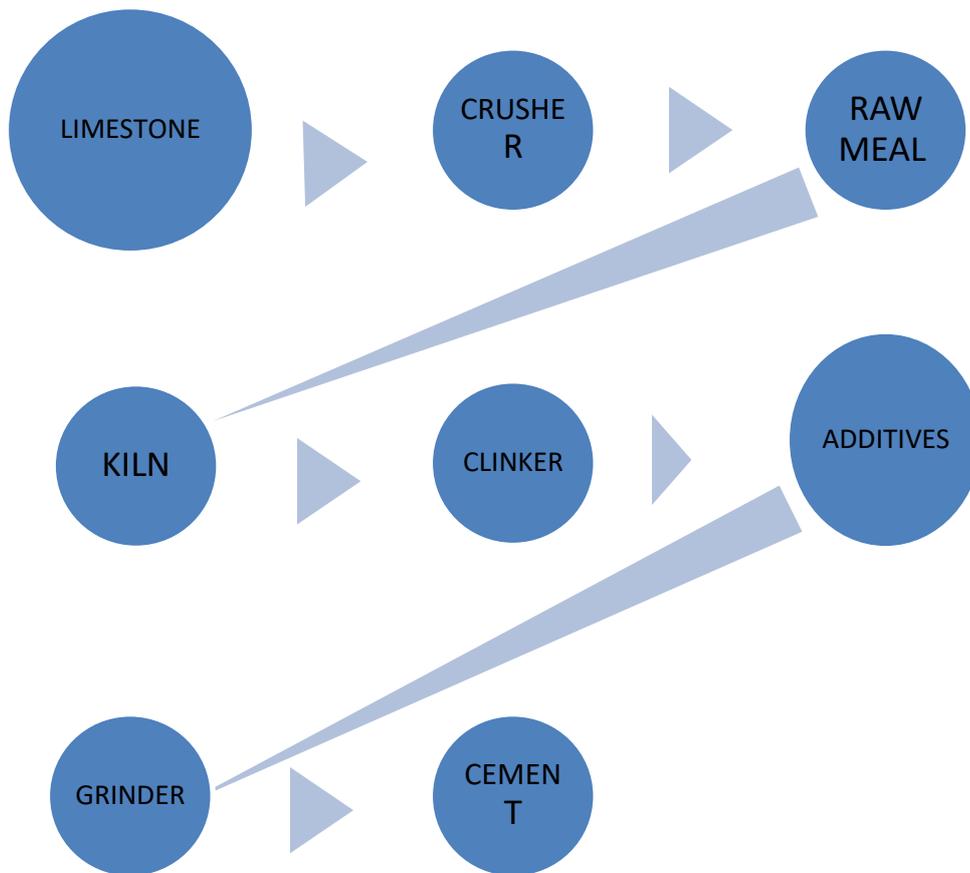


Figure diagram shows the mechanism or stages of manufacturing cement, which in turn passes through 9 stages to reach the production stage

الخلاصة

ان استراتيجية الصحة المهنية مهمة ليس لضمان صحة العمال فحسب، بل تهدف الدراسة إلى تحديد أنواع المخاطر (الفيزيائية - الكيميائية - البيولوجية - النفسية - الميكانيكية - الكهربائية) وغيرها من المخاطر المهنية ضمن عينة الدراسة وتقييم استراتيجيات الوقاية من الأخطار المهنية المتصلة بالحالة الصحية. ويوضح كيف يستخدم العمال هذه الوسائل والاستراتيجيات لمنع تلك المخاطر وكيفية تنفيذها للحد من المخاطر.

وأجريت الدراسة الوصفية في ثلاثة أماكن حكومية يصنع فيها الإسمنت في محافظة النجف الأشرف. في عدة معامل منها معمل إسمنت النجف الأشرف - معمل إسمنت كوفة - قسم الكسارات الحجرية (الكسارات)، والذي يضم حوالي 200 عامل من مختلف المتعاونين والفئات العمرية الذين تم اختيارهم من بين 1000 عامل يعملون في تلك المصانع. وقد جمعت البيانات من خلال استخدام الاستبيان وتحليل البيانات بواسطة النسخة 22 من النظام spss.

استنتجت الدراسة أن العمال يتعرضون لمخاطر كبيرة (الفيزيائية - الكيميائية - البيولوجية - الكهربائية - الميكانيكية) أثناء أداء مهامهم داخل المصنع حوالي 55.5 في المائة يعتبرون عالي الخطورة، لذلك أصبح من المثالي أن يكون العمال الذين يستخدمون استراتيجيات الوقاية المهنية أقل عرضة لخطر المخاطر المهنية التي تحدث مع العامل أثناء بيئة العمل. بينما وجدت الدراسة علاقة إحصائية مهمة مع العمال فيما يتعلق بالمخاطر النفسية أثناء العمل وخلصت الدراسة إلى أن هناك علاقة مهمة للغاية بين المخاطر الجسدية وتأثيرها على العمال في بيئة العمل

أوصت الدراسة بتثقيف العاملين في صناعة الإسمنت حول المخاطر التي تؤثر على صحتهم واستخدام تدابير السلامة الوقائية (استراتيجيات الوقاية) وتطبيق المبادئ والمعايير التوجيهية القياسية لمخاطر السلامة والوقاية. وزيادة برامج التوعية الصحية حول المخاطر التي يتعرض لها العمال في بيئة العمل.



جمهورية العراق

وزارة التعليم العالي والبحث العلمي

جامعة بابل

كلية التمريض

(استراتيجيات الوقاية والرعاية الصحية المتعلقة
بالمخاطر المهنية بين العاملين في معامل الاسمنت
الحكومية في محافظة النجف الاشرف).

أطروحة

مقدمة الى مجلس كلية التمريض
جامعة بابل

من قبل

غسان عدنان هاشم الطالقاني

كجزء من متطلبات نيل درجة الدكتوراه

فلسفة في التمريض

بإشراف

الاستاذ الدكتور أمين عجيل الياسري

شعبان / 1443 هجري

نيسان / 2022 ميلادي