TURKISH REPUBLIC OF NORTHERN CYPRUS
NEAR EAST UNIVERSITY
NURSING FACULTY

EVALUATION OF THE HEALTH BEHAVIORAND ATTITUDE OF FOOD SERVICE WORKERS

NELSON AYODEJI DAODU
MASTER THESIS

NURSING DEPARTMENT

MENTOR
ASSOCIATE PROFESSOR
HATICE BEBIS

NICOSIA 2020

TURKISH REPUBLIC OF NORTHERN CYPRUS
NEAR EAST UNIVERSITY
NURSING FACULTY

EVALUATION OF THE HEALTH BEHAVIORAND ATTITUDE OF FOOD SERVICE WORKERS

NELSON AYODEJI DAODU
MASTER THESIS

NURSING DEPARTMENT

MENTOR
ASSOCIATE PROFESSOR
HATICE BEBIS

NICOSIA 2020

KUZEY KIBRIS TÜRK CUMHURİYETİ
YAKIN DOĞU ÜNİVERSİTESİ
HEMŞİRELİK FAKÜLTESİ

GIDA SERVİSİ ÇALIŞANLARININ SAĞLIK DAVRANIŞI VE TUTUMLARININ DEĞERLENDİRİLMESİ

NELSON AYODEJI DAODU
YÜKSEK LİSANS TEZİ

HEMŞİRELİK BÖLÜMÜ

DANIŞMA
ASSOCIATE PROFESSOR
HATICE BEBIS

NICOSIA 2020

THESIS JURY APPROVAL CERTIFICATE

The thesis study of Nursing Department graduate student **Ayodeji Nelson Daodu** with student number **20184078** title **Evaluation of Cleaning And Health Behavior Of Food Service Workers** have been affirmed concord/greater number of plebiscites by the jury and has been acknowledged as a Master of Nursing Education Department Thesis.

YAKIN DOĞU ÜNİVERSİTESİ
SAĞLIK BİLİMLERİ ENSTİTÜSÜ
YÜKSEK LİSANS / DOKTORA TEZ SAVUNMASI SINAV TUTANAĞI

I. ÖĞRENCİ BİLGİLERİ

Adı:	AYODEJI NELSON	**Anabilim Dalı:**	HEMŞİRELİK
Soyadı:	DAODU	**Program Adı:**	HEMŞİRELİK
Numarası:	20184078	**Statüsü:**	Y.Lisans ☒ Doktora ☐

II. TEZ BİLGİLERİ

Danışmanı: DOÇ. DR. HATİCE BEBİŞ

Tez Başlığı: Evaluation of Cleaning and Health Behavior of Food Service Workers in a Universiy

III. TOPLANTI BİLGİLERİ

İlgi: Enstitü Yönetim Kurulu'nun 17 / 1 / 2020 tarih ve 54 / 151-B sayılı toplantısında oluşturulan jüri

Sınav tarihi: 22 / 1 / 2020 **Yeri:** SBF2D01

Saati: 15:00

IV. DEĞERLENDİRME VE SONUÇ

☑ Kişisel raporların tartışılması sonucunda başarıyla savunulan tezin **KABUL EDİLMESİNE,**

☐ Kişisel raporların tartışılması sonucunda tezin **DÜZELTİLMESİNE *,**

☐ Kişisel raporların tartışılması sonucunda savunmaya değer bulunmayan tezin **REDDEDİLMESİNE **,**

OY BİRLİĞİ ☑ **OY ÇOKLUĞU** ☐ ile karar verilmiştir.

Tez Sınav Jürisi	Ünvanı, Adı Soyadı	İmza
Başkan	YRD. DOÇ. DR. MELTEM MERİÇ	
Üye	DOÇ. DR. HATİCE BEBİŞ	
Üye	YRD. DOÇ. DR. SERAP TEKBAŞ	
Üye		
Üye		

***Öğrenciye tezindeki düzeltme ve tamamlamaları yapması için ay ek süre verilmesi önerilmektedir.**
****Reddedilmesi halinde jüri üyeleri kişisel raporları sınav tutanağına eklenecektir.**

Ekler: 1. Tez Savunma Sınav Duyurusu
2. Katılım Listesi

Telefon: (392) 680 20 00/125 **E-Posta:** info@neu.edu.tr

EP

DECLARATION

I proclaim that this thesis study is my investigation. I have not had deceptive conduct in all stages, from arranging the proposal to its composition. I got all the data of this thesis in scholarly and moral standards. I have given reference to all the data and remarks that couldn't be gotten right now, I have taken the references in the list of references, and I have not violated the behavioral rights and permission to reproduce materials (copyright)breach while contemplating and composing this thesis.

Nelson Ayodeji Daodu

Date: ……..……

Signature: ……

ACKNOWLEDGEMENT

My valuable consultant professor, who is guiding me with her help and contributions throughout my work, and whose experience I benefited from. Dr. Prof. Dr. HaticeBebiş, Dean of the Faculty of Nursing, Near East University, which allows the study to be conducted. Dr. Prof. Dr. Ümran DAL Yılmaz, the assistant Dr. Thank you very much Meltem Meriç and Assistant Professor Dr. Serap Serap and the Near East University food worker who participated in the study and answered the question sincerely. I appreciate my mother, Mrs Oluwayemisi Daodu for her valuable supports and encouragement throughout my study period. Thanks to TRNC Government scholarship for funding this Masters program. Thanks to my brothers; Dr Olushola and Mr Toluwalope Daodu for their supports. Special thanks to God Almighty for the successes that I have achieved.

CONTENTS

ABBREVIATIONS AND ACRONYMS

OSH: Occupational Safety & Health

NEU: Near East University

WHO: World Health Organization

UOK: University Of Kyrenia

PPE: Personal Protective Equipment

TABLES LIST

TURKISH SUMMARY

ÖZET

Giriş: Yemek endüstrisi restoranlar, kafeteryalar, serinletici yerler, fastfood yerleri ve içki işletmelerini içerir. Vücutta meydana gelecek kesi ve çürükler, haşlanma ve yanıklar, ısı stresi, kas-iskelet sistemi ve göz yaralanmaları ve yırtılmalar dahil olmak üzere yemek servisi çalışanlarıişleriyle ilişkili çok çeşitli yaralanmalar vardır. Bu işçilerin karşılaştıkları iş sağlığı tehlikelerinin ciddiyetine rağmen, KKD'lerin sağlanması ve kullanımı düşüktür.

Amaç: Bu çalışma, eğitim ve öğretimin üniversite ortamlarında gıda güvenliği uygulamasını, kişisel hijyen uygulamalarını ve gıda çalışanlarının genel sağlık ve refahını nasıl etkilediğini değerlendirmeyi amaçlamıştır.

Gereç ve yöntem: Yakın Doğu Üniversitesinin yemek hizmetleri bölümünde çalışan 250 katılımcının en az %80'i ulaşmak amaçlanmıştır ve örneklem seçimine gilmemiş. Bu çalışmada Kişisel Koruyucu Donanım (KKD) kullanımı ve kişisel hijyen bilgi, tutum ve uygulamaları değerlendirilmiştir. Verilerin toplanmasında, literatürden elde edilen bilgilere gör soru formu hazırlanmıştır. Değişkenler arasındaki ilişkilerin %5 anlamlık ve % 95güven aralığı seçilmiştir. Toplam kişiye (n=250) ulaşılmıştır. Veriler SPSS 20 Paket proğraminda değerlendirilmiş sayi yüzde ortalama ortanca ve ki kare testleri uygulanmıştır.

Bulgular: Katılımcıların çoğu, çalışmaları ile ilgili mesleki eğitim almadıklarını ve bulguların birçoğunun işle ilgili riskler, enfeksiyonlar ve bulaşıcı hastalıklar konusunda yeterli bilgiye sahip olmadıklarını veya yetersiz olduklarını belirtmiştir.

Sonuç ve Öneriler: Çalışanların sağlığını ve yaşam kalitesini korumak için etkili önlemlerin alınmasını sağlamak amacıyla yöneticiler ve denetleyici halk sağlığı hemşireliği birimlerinden daha fazla taahhüt gerekmektedir. İşçileri bilgi açıkları konusunda eğitmek ve eğitmek ve bu bilgileri kullanmak için platformlar / kaynaklar oluşturmak çalışan nüfus arasındaki olumlu değişiklikleri etkilemek için hayati öneme sahiptir.

Anahtar kelimeler

Yemek servisi çalışanları, güvenlik ve sağlık, bilgi, işyeri.

ENGLISH SUMMARY

ABSTRACT

Introduction: The food (catering) service industry includes restaurants, cafes, eateries, fast food and beverage establishments. There is a wide range of injuries associated with food service workers, including cuts and bruises, scalds and burns, heat stress, musculoskeletal and eye injuries, and lacerations. Despite the severity of occupational health hazards encountered by these workers, their provision and usage of PPE is low.

Aim: this study aimed to evaluate how education and training affect food safety practice, personal hygiene practices and the overall health and well-being of food workers in the university settings.

Materials & Methods: At least 80% of 250 participants in the Near East University food service department chose the sample selection at a low level. Personal cleanliness information, perspectives and practices, including Personal Protective Equipment (PPE) utilization, were evaluated. A survey was prepared according to the information obtained from the literature. 5% significance and 95% confidence intervals of the relationships between variables were chosen. Total; people were reached. The data were evaluated in SPSS 20 package program and the median and chi-square test percentage was applied.

Results: Majority of the respondents reported that they did not receive any vocational training related to their works and many of the findings showed that they lack or have inadequate knowledge in terms of work-related risks, infections and contagious diseases.

Conclusion & Suggestion: More efforts are needed from managers and supervisors of public health care to guarantee that successful measures are taken to ensure workers' wellbeing and personal satisfaction. Training and educating employees in areas of knowledge deficits, and creating platforms/resources for using this information is vital in effecting positive changes among the working population.

Keywords

Food service workers, safety and health, knowledge, workplace.

1. INTRODUCTION AND AIM

Establishments are encountering extended contention on account of globalization, imaginative changes, political and money related conditions (Evans, Pucik and Barsoux 2002) thus, encouraging them to set up their workers is one of the ways to position them to acclimate to fundamental past changes which in turn, improve its performance. There is no doubt that organizations all over the world strive for success and outperform those of the industry itself. To do this, they must obtain and use human resources effectively (Aidah 2013). Employee performance is generally considered regarding results. Nonetheless, it can in like manner be considered similar to outcome (Armstrong 2000). The emergence of foodborne illnesses is becoming serious, regularly connected with pandemics, undermines worldwide general wellbeing security and creates global concern [Kuchenmuller 2013]. Training food managers is viewed as a system through which sanitation can be expanded, offering long haul advantages for the food business [Smith 1994].

Well being is an observation that alludes to exercises whose goal is the decrease of dangers (the danger is characterized as the chance of having a bothersome occasion) and the decrease of the outcomes brought about by undesirable occasions (Giovanis 2010). Food safety stays a basic issue in nations for individuals, food organizations and control authorities, it is a growing public health problem (Azanaw et al. 2019). Around 10 to 20% DBF flare-ups are because of tainting due to terrible care practices of nourishment handlers (Girma 2015). According to the World Health Organization, nourishment cleanliness is the important terms and measures to guarantee food sanitation from creation to utilization. Nourishment deficiencies/inadequate cleanliness can cause foodborne ailment, sickness and even buyer demise.

Great individual cleanliness and food handling practices are critical to prevent the spread of harmful micro-organisms from food chiefs to buyers (Kibret and Abera 2012, AlShabib et. al. 2016, Wambui et. al. 2017). About 75% of nourishment borne ailment episodes are ascribed to the absence of safe nourishment handling practices by nourishment directors in food firms (Gizaw 2014). Nourishment directors assume a key job in guaranteeing exacting consistence with sanitation standards all through the entire procedure (Assmawi et al 2018). The most regularly distinguished work elements that impact safe food practices incorporate

time pressure, lack of staff, high volume of client, the executives/associate's accentuation on satisfactory techniques and issues with assets and site structure. (for example, location of uncomfortable sinks, small spaces) (Clayton et al. 2015). Considering that human resources are the company's intellectual property, employees prove to be a good source for gaining a competitive advantage and training is an essential method for developing the organization's intellectual property through the development of employee skills.

Study Aim: This study aimed to evaluate how education, gender, training and duties affect food safety practice, personal hygiene practices and the overall wellbeing and healthfulness of food workers in the university settings. Likewise, the objective of this investigation is to all the more likely comprehend and explain the scope of individual and natural factors that clarify laborers' hygiene and health practices.

Questions of The Study

- What is the food sector worker demographic characteristics?
- What are the health problems of the food service workers?
- What is the food / personal hygiene safety status?
- What is the knowledge and/or risk awareness status of the food service working population?

2. GENERAL INFORMATION

2.1.1 THE FOOD INDUSTRY WORKERS HEALTH AND WELL-BEING

Nourishment is an absolutely necessary aspect of human existence. The food catering organization is among the biggest industries in the world. This is not a surprise as we all need food daily to function properly. However, this industry has become one of our biggest problems too. The food industry involves a perplexing system of exercises identifying with procurement, production, collection, processing, packaging, transportation, distribution, consumption and disposal. It is one of the most powerful financial parts on the planet and assumes a significant job in the monetary improvement of any country (Mathew et al 2019). The service sector is made up of two main classes: intermediary services and end services. The intermediary service is made up of sub-divisions like transport, stockpiling, information transmission, fund, protection, land and business administrations. While the end services incorporate sub-divisions like, power, gas, water, discount, retail, inns, cafés, taxpayer supported organizations and different administrations (Atiqah 2011). Despite the significant economic contributions of the food industry, food companies operate with relatively insignificant value from public awareness perspective. Food service institutions themselves face significant challenges today (Adesoji et al 1999). The public health issues of the food business were not commonly seen as a major issue similarly as different sectors, for example, health, transportation, mining and development divisions (Kim 2016).

2.1.2 FOOD INDUSTRY (PARTS/SUB-DIVISIONS)

The food organization as a whole isn't only an industry, however it is a blend of various kinds of businesses that produce a wide scope of food products and services. It incorporates agribusiness, food creation & handling, conservation, bundling, appropriation, retail and providing food. The nourishment business is comprised of; agriculture, food processing, distribution, regulation, financial services, research and development, marketing (Mathew et al 2019).

2.2 CLEANING AND HYGIENE AMONG WORKERS

Restaurants are part of a wide range of labor-intensive services, consisting mainly of small businesses. Most jobs are unskilled labor that provides low wages. As a result, they mainly attract workers with little/no education and experience. Health risks change based on the restaurant's working environment. If these workers do not practice adequate hygiene measures, they also present risks for themselves and for customers by acting as an infection reservoir (Tiwari 2015). The absence of cleanliness and information that the of perspectives of food manage assume a significant role in epidemics (Ulusoy and Colakoglu 2018). Several authors demonstrate that food managers who have a decent information on sanitation and powerful acts of such information about food handling are fundamental to guarantee the creation of safe nourishment (Mortlock, Peters and Griffith, 1999). Nourishment (food) industry workers and representatives are without a doubt in a decent situation to distinguish OSH problems and to recommend arrangements. Hence, it is fundamental that businesses and representatives of the nourishment business can contribute and keep up their insight and aptitudes to improve work environment security and medical issues.

2.3 ENVIRONMENT AND HEALTH PROBLEMS

Food service employees are regularly utilized in occupations that present huge health and risks of dangers (Bureau of Labor 2010, Baron et. al. 2014, Steege et. al. 2014). They are regularly associated with job insecurity, uncertainty about working hours, which contribute to income instability, significant demands for physical work, repetitive work, low freedom of employment and autonomous decision (Glorian et al 2019, Busch et to 2017, Marmot and Bell 2010, Bauer et al 2009, Borrell et al 2004). Restaurants highly value the service they offer to their customers. Sometimes, employees appreciate customer satisfaction, which puts customer safety ahead of their own. However, it is important that employee safety is of importance in relation to taking care of customer satisfaction. It is important that restaurants avoid many accidents at work by paying the same attention to the health and safety of employees and the satisfaction of their customers (Atiqah 2011 and Focus Report, 2001). Accidents can cause significant issues in any association and produce colossal expenses for the both organizations and the country. Work exercises can be dangerous for the wellbeing and soundness of employees and others, particularly on the off chance that they are not observed and controlled adequately (Atiqah 2011 General Plan for Health and Safety at Work for Malaysia 2015). An

accident, illness or mortality caused by these occupational risks not only affects a worker personally, yet in addition, has economic and social / human costs. Employers and insurance companies can cover economic costs, while family, relatives, friends and the immediate community can be responsible for the human / social cost. The direct effort towards goals to improve occupational safety and health can help lessen the quantity of mishaps, wounds, diseases and deaths in the workplace. This must be continuously reduced if we are to reduce its costs for society (general health and safety plan for Malaysia 2015). In fact, an average of 5,000 people dies every day from accidents at work worldwide and 270 million employees endure mishaps at work every year (Atiqah 2011). Likewise, Atiqah (2011) expressed that around 8,900 employees in the inn and eatery ventures are harmed during work on every year in British Columbia. Over 50% of these employees need to take a break from work on account of wounds, including extreme cuts, consumes, consumes, sprains, sprains and broken bones, and some have even died at work.

2.4 PHYSICAL HEALTH PROBLEMS

The greater part of the exercises completed in restaurants are not automated and, thus, employees are presented to different factors such as heat, fire, cold and food stuffs which contain different artificial compositions. The skin is a significant contact organ that suffers from the burns, hypersensitive dermatitis and scalds. A study detailed a 19% predominance of dermatitis or professional burns in the 335 employees examined [Teo et al 2009]. Among the normal elements connected to all segments of the food business is that they should adhere to firm wellbeing and cleanliness models, as the nature of their items and administrations can influence customer wellbeing [Kim 2016]. For instance, in the underlying period of food preparing, crude materials must be washed completely. What's more, workers are required to agree to individual cleanliness norms, for example, hand washing, protective dressings and individual cleaning. Steady and nonstop utilization of water at work additionally implies that floors and dividers can be wet, which thus builds the danger of slipping and falling. Another significant regular element of the food business is that laborers are associated with the preparing and handling of crude materials, for example, meat, chicken and shellfish, which effectively decay except if they are handled rapidly at low temperatures [Sbizue 1993]. Under these conditions, laborers regularly need to play out their obligations in low or cold temperatures for extended periods of time. The way that a similar errand is more than once

performed at such low temperatures likewise builds the danger of exertion, especially of the elbow and wrist. These workers are in danger of respiratory afflictions, freezing and rheumatic illnesses. Food industry laborers frequently utilize sharp and risky devices for preparing different crude materials. They might be presented to the subsequent over the top exhaustion which can prompt serious pressure. In certain branches, laborers are at high danger of breathing in a huge centralization of residue particles, potentially causing respiratory illnesses and sensitivities. They may likewise be presented to a high danger of injury from glass bottles, which can fall and break during washing [Kim 2016]. Arrangement, change and nourishment (food providing) administrations are possibly perilous employments that occasionally cause genuine injury (Newman et al 2015). The expanded utilization of programmed hardware has additionally been related with higher commotion levels, which drove more laborers to experience the ill effects of hearing issues. Other basic issues influencing laborers' physical wellbeing stem from the developing utilization of dangerous hazardous chemicals (Kim 2016). As a rule, we would anticipate that physical capacities and physiological components should be legitimately identified with the activities that employees are engaged with, and in a roundabout way through these activities (for example security execution), physical abilities and physiological factors influence injuries and occupational diseases (Burke and Signal, 2010)

2.5 PUBLIC HEALTH NURSING ROLES

The nourishment business is essential and significant for all countries. It assumes a urgent job in general wellbeing, social improvement, sanitation and security, and sustenance. Item quality, wellbeing and cleanliness issues are significant worries in the nourishment business. The preparation of nourishment directors stands apart as a significant system for expanding information and mindfulness (Ulusoy&Colakoglu 2018). When all is said in done, the preparation of nourishment chiefs is viewed as a system through which it is conceivable to improve sanitation practices, which offers long haul benefits for the nourishment business (Green et al 2006), however there are a few explanations behind preparing wasteful and lacking representative. One of the primary variables is that present information-based preparing may not be sufficient to ensure or alter certain wellbeing practices (Egan et al., 2007). Preparing that centers just around information isn't sufficient to impact practices (Chapman et al, 2010; Powell et al 2011). Despite what might be expected, preparing is progressively powerful when practices are likewise centered around, on the grounds that regularly there are troubles in

changing information and hypothesis into better conduct in nourishment taking care of (Green et al., 2006). Thus, conduct based preparing can help discover an answer for this issue. Conduct based preparing is not the same as conduct displaying preparing, which is preparing that centers around the accompanying; showing understudies the right arrangement of practices, giving conduct models, furnishing understudies with chances to rehearse practices, giving criticism and guaranteeing the exchange of preparing (Taylor et al 2005). Interestingly, conduct put together preparing concentrations with respect to what laborers accomplish busy working (conduct) and strengthens possibilities (foundations and results) that help or demoralize safe conduct without depending on impersonation of others (Krause, et al 1999).

2.6 CARE AND PREVENTION TECHNIQUES

Individual cleanliness is a significant hazard factor adding to foodborne sickness. Improving hand washing in laborers in the nourishment part is basic to diminish the quantity of flare-ups of foodborne ailments in danger of laborers and purchasers (Green et al., 2006). Be that as it may, most observational investigations of nourishment laborers' practices report low consistence with hand washing benchmarks. Satisfactory hand washing practices can altogether lessen this hazard; however, information based preparing alone might be insufficient to energize preventive sanitation rehearses. Improved and powerful sanitation preparing approaches that can legitimately impact laborers practices is emphatically prescribed (Heyao et al. 2018). Optional and tertiary consideration ought to be given when essential.

2.7 FOOD WORKER TRAINING

Training is indispensable in the work environment. Without preparing, representatives don't have a strong comprehension of their obligations and/or obligations. Representative preparing alludes to exercises/programs that give laborers data, proficient improvement openings and new skills (Amir and Amen 2013). Training is a vital way to identify employees' private needs and thus develop the level of competence required so that they can perform the organization's objectives well (Amir and Amen 2013). Some organizations plan and implement training programs for their employees without noting the objectives& purpose, the lack or insufficiency of knowledge, skills and abilities that employees would learn at the end of the training program and whether they will be able to achieve the work performance goals. Therefore, the company must first design the training program with

clear objectives and objectives, considering the specific needs of both the individual and the company (Amir and Amen 2013). Training methods include, but are not limited to; Coaching and / or tutoring, conference, role play, orientation, and formal training.

3. MATERIALS & METHODS

3.1 DESIGN

A descriptive / cross-sectional study between September 2019 - January 2020.

3.2 SITE OF THE STUDY

Near East University was created by Günsel in 1988. He started with advanced education studies with two resources and accordingly settled another 14 resources, four master's level college and 15 research communities.

As a result of the continuously increasing student population, it is essential that the needs for food is on the rise. There are several restaurants, cafeterias, kitchens and canteens within the university. There are 3 main restaurants namely Central Café (Student Restaurant), Staff Restaurant and Kopru Restaurant which caters for the needs of students, staffs and the visiting population. The staff restaurant is a self-administration eatery with an open smorgasbord and offers different dishes and beverages, open from 11:30 to 14:30. While the Kopru restaurant, situated central campus shopping center, offers a wide assortment of nourishment and beverages, for example, pizzas, spaghetti, kumpir, plates of mixed greens and drinks, and is open from 07:30am to 24: 00pm.There are 16 canteens and cafeterias located inside the university. These can be found on the ground floors of most faculties. The average working hours of these cafeterias are. 7:30am – 22:00pm. However, some cafeterias work lesser/more hours.

They include; Café of Engineering Faculty, Café Dolphin, Business Administration Cafeteria, Café Of Law Faculty, Café Of Architecture Faculty, Café Of Arts And Science Faculty, Fuaye Canteen, Borek House, Vitamin Bar, Café Amfi, Chicken House, Café Saray, Café Library, Café Dental, Café Ecza and Café Communication. Each dormitory also have a cafeteria/canteen on its ground floor. The dormitory canteens/cafeterias are; Medi Café, Tekno Café, 1,2,4,5,6,7,8,9,10,12,14 Dormitory Canteens and the Primary School Canteen. Finally, there are 4 main kitchens within the university. These are the Main Kitchen, Primary School-College Kitchen, Primary School Dining Hall and the Confectionary.

As listed above, there are several restaurants, kitchen, canteens and Cafeterias in NEU. Even though they are separated into several sub-sectors, each and every parts of this food facility are equally important because the value of the services they provide cannot be over-estimated. Additionally, the high population of students, workers, etc consumers can be

overbearing for the food facility workers. Thus, it is essential to focus on the food workers health, hygiene & PPE practices. It is also important to evaluate their knowledge and awareness level concerning the works and services provided in-order to provide adequate information, equipment and infrastructures that will improve the well-being of workers and the service they provide.

3.3 STUDY POPULATION AND SAMPLING

The research sample populace was from Near East University and the University of Kyrenia (UOK) food facility food worker (N=280). It is aimed to reach all food workers who have not been selected for sampling. The sample of the study consisted of n=250 food worker. Reasons for selection is the convenient location of the sites and their agreement to participate in this study. At least 80% of the 280 workers population was considered.

3.4 STUDY VARIABLES

The study analysis was based on the dependent and independent variables; The dependent variables are the "training" (group) values and the independent variables are the social demographic data, health status, PPE, personal hygiene status and negative work outcomes values.

3.5 COLLECTION OF DATA

3.5.1. DATA COLLECTION FORM

The personal information included the socio-demographic data, duties, health status and medical access, vocational training, contagious disease and infections transfer awareness, PPE usage, personal hygiene and vaccination, washing status and finally, the negative work-related outcomes (36 questions).

3.5.2. DATA FORM APPLICATION (QUESTIONNAIRE)

The 36-item questionnaire form was prepared and printed for distribution. Before the data dissemination process, permission was gotten from the Heads/Managers of NEU and UOK Food Facilities to perform the study using NEU and UOK food service workers as the sample population. Data regarding the aim, instructions and objectives of the investigation questionnaires was given at the beginning. Afterwards, with the assistance of NEU and UOK

food facilities managers, the questionnaires were distributed to the workers population. It took each respondent about 5minutes to complete each questionnaire. Data was successfully collected and the respondents were appreciated for their participation in the study.

3.6 CONSIDERATIONS OF ETHICS

The Ethics Committee of Near East University (YDU / 2018 / 64-692): The ethical permit was acquired via the permission of institution was obtained from the Near East College. Participation was voluntary and each participant gave consent prior to filling the questionnaires and participating in the study. Afterwards, the study potential participants were given explanation on the study nature, purpose and procedures.

3.7 LIMITATIONS OF THE STUDY

The data obtained from the results of this research are limited only to food workers who agree to participate in the research at the Near East University and the University of Kyrenia (UOK) food facility food worker and cannot be generalized.

4. FINDINGS

Table 1. Distribution of Some Sociodemographic Characteristics of Food Workers

		n	%
Gender	Male	80	32.00
	Female	170	68.00
Marital status	Single	48	19.20
	Married	182	72.80
	Divorced/Widow	20	8.00
Education	Primary school	133	53.20
	High school	104	43.60
	College/University	8	3.20
Economic situation	Bad	54	21.60
	Medium	184	73.60
	Good	12	4.80
Health status	Bad	10	4.00
	Medium	93	37.20
	Good	147	58.80
Duties	Chef	45	18.00
	Waiter	205	82.00

Table 1 shows that of all the study participants, 32% (n=80) were male while 68% (n=170) were female. The marital status was divided into 3 groups where 19.2% (n=48) were single, 72.8% (n=182) were married and 8% (n=20) were either divorced or widowed, indicating that the majority of the population were married. For the education status, majority of the participants highest academic achievement was primary school at 53.20% (n=133) while few of the population had a University degree at 3.2% (n=8). The economic situation of the participant population was mostly reported as “Medium”, 73.60% (n=184) but very few respondents viewed their economic situation as “Good”, 4.8% (n=12). The health status was mostly reported to be “Good” by 58.8% (n=147) respondents while 4% (n=10) reported “Bad” health status. The duties of the respondents were divided into two groups, where 18% (n=45) were Chefs and 82% (n=205) were waiters.

Table 2. Distribution of Health Status Socio-demographic Characteristics

		n	%
Examination Location	Government hospital	94	37.60
	Private hospital	116	46.40
	None	40	16.00
Medical Examination	Yes	244	97.60
	No	6	2.40
Inspection porter	Yes	219	87.60
	No	31	12.40

Table 2 is a demographic table that represents the health status of the participants with reference to where and how they seek medical attention. 37.6% (n=94) get examined in the Government Hospital while majority of the population 46.4% (n=116) get examined in a Private hospital but 16% (n=40) of the respondents reported that they do not go to the hospital when they get sick. 97.6% (n=244) reported that they have had a medical examination on their jobs while 2.4% (n=6) reported that they have not gotten a medical examination on their jobs. Finally, 87.6% (n=219) confirmed that an intermittent portal was performed while 12.4% (n=31) reported opposite.

Table3. Distribution of Work-Related Risk Awareness Socio-Demographic Characteristics

		n	%
Training	Yes	108	43.20
	No	142	56.80
Contagious diseases	Same	67	26.80
	More	35	14.00
	Less	91	36.40
	Don't know	57	22.80
Work infect	Yes	86	34.40
	No	121	48.40
	Don't know	43	17.20
Other infect	Yes	76	30.40
	No	134	53.60
	Don't know	40	16.00
Cross infect	Yes	75	30.00
	No	116	46.40
	Don't know	59	23.60

Table 3 is a work-related demographic table that shows the knowledge and awareness level of the respondents on work-related risks of infection transmission and contagious disease. 43.2% (n=108) reported that they received vocational training related to their works while more respondents 56.8% (n=142) did not received vocational training related to their works. Majority of the respondents 36.4% (n=91) confirmed that the existing work had "Less" risks of getting contagious diseases compared to workers working in hotels & government offices but 14% (n=35) reported "More" risks of getting contagious diseases. However, 22.8% (n=57) reported that they "Don't Know" if there's a risk for contagious diseases. Most respondents 48.2 (n=121) agree that it is "Not" possible to get infected during work and 17.2% (n=43) of the respondents "Don't Know" if it is possible to get infected during work. The lowest 16% (n=40) of the participants "Don't Know" if it is possible to infect other people during work while most 53.6% (n=134) of them said it is "Not possible" to infect other people during work. The lowest 23.6% (n=59) of the participants "Don't Know" if it is possible to infect one person to another during work while most 46.4% (n=116) of them said it is "Not possible" to infect one person to another during work.

Table 4. Distribution of PPE Usage Sociodemographic Characteristics

		n	%
Apron/uniform	Never	46	18.40
	Sometimes	14	5.60
	Always	190	76.00
Gloves	Never	56	22.40
	Sometimes	49	19.60
	Always	145	58.00
Hat/cap	Never	96	38.40
	Sometimes	18	7.20
	Always	136	54.40
Mask	Never	152	60.80
	Sometimes	28	11.20
	Always	70	28.00
Glasses	Never	230	92.00
	Sometimes	10	4.00
	Always	10	4.00

Table4 represent the frequency at which the study participants use personal protective equipment (PPE) while working. 76% (n=190) “Always” use Aprons/Uniform while working and 5.6% (n=14) use Aprons/Uniform “Sometimes”. More than half of the participants 58% (n=145) “Always” use gloves, 19.6% (n=49) “Sometimes” use gloves and 22.4% (n=56) “Never” use gloves during work. 54.4% (n=136) reported that they “Always” use hat/cap during work while 7.2% (n=18) sometimes use the hat/cap while working. Majority of the respondents 60.8% (n=152) reported that they “Never” use the mask, 28% (n=70) “Sometimes” use the masks and 11.2% (n=28) “Always” use the mask while working. Majority of the respondents 92% (n=230) “Never” use glasses while an equal amount of the remaining respondent population 4% (n=10) reported “Sometimes” and 4%(n=10) reported that they “Always” use glasses when working.

Table 5. Distribution of Personal Hygiene & Vaccination Sociodemographic Characteristics

		n	%
Personal wardrobe	Yes	151	60.40
	No	99	39.60
Clothes sorting	Yes	109	43.60
	No	141	56.40
Uniform Wash	Suitable	225	90.00
	Unsuitable	25	10.00
Eat	Yes	89	35.60
	No	161	64.40
Uniform	Yes	193	77.20
	No	57	22.80
Vaccine	Hepatitis	8	3.20
	Tetanus	71	28.40
	Both	80	32.00
	No	91	36.40

Table 5 shows the how the respondents take care of their working clothes (uniform). More than half 60.4% (n=151) “have” a personal wardrobe at work and 39.6% (n=99) do not have their own wardrobes at work. 56.4% (n=141) “do not” keep their business clothes and daily clothes in the closet in the same place while 43.6% (n=109) keep their business and daily clothes in the same place inside the closet. Majority 90% (n=225) reported a “suitable” habit of washing their uniforms while 10% (n=25) had an “unsuitable” habit of washing their uniforms. 64.4% (n=161) “do not” take off their work uniform while they eat and 35.6% (n=89) reported that they take off their work uniform while they eat. 77.2% (n=193) take off their work uniform when going to and from the workplace and 22.8% (n=57) do not take off their work uniform when going to and from the workplace. Finally, majority of the respondent 36.4% (n=91) have “never” had either hepatitis or tetanus vaccine and 32% (n=80) have had “both” hepatitis and tetanus vaccine.

Table 6. Distribution of Negative Work Impacts Sociodemographic Characteristics

		n	%
Accident	Yes	35	14.00
	No	215	86.00
Work-related illness	Yes	10	4.00
	No	240	96.00
Disability	Yes	8	3.20
	No	242	96.80
Negative impact	No	227	90.80
	Yes	23	9.20
Suggestions	No	236	94.40
	Yes	14	5.60

Table 6 is a presentation of the negative impacts that the workplace has on the workers/respondents. In this regard, 86% (n=215) reported that they have "never" had an accident during work and 14% (n=35) have had accidents while working. Majority 96% (n=240) of the participants reported that they have "never" had any work-related illness while 4% (n=10) have had work-related illnesses. 96.8% (n=242) "do not" have a permanent disability associated with any of their works during employment while 3.2% (n=8) have a permanent disability associated with their works during employment. Overall, 90.8% (n = 227) do not perceive that their work has a bad / unwanted impact on their well-being or health and 9.2% (n = 23) replied that their work has a bad / unwanted impact on their well-being or health. Finally, 94.4% (n = 236) did not provide suggestions on how to minimize the negative effects of work on their well-being or health, while 5.6% (n = 14) provided suggestions on how to reduce the negative impact work on your health.

Table 7. Training Vs Socio-Demographic Data

Training		Yes	%	No	%	X^2	p value
Gender	Male	43	17.2	37	14.8	5.34	0.021
	Female	65	26.0	105	42.0		
Education	Primary school	56	22.4	77	30.8		
	High school	46	18.4	63	25.2	3.41	0.182
	College/University	6	2.4	2	0.8		
Economic situation	Bad	13	5.2	41	16.4	11.46	0.003
	Medium	91	36.4	93	37.2		
	Good	4	1.6	8	3.2		
Health status	Bad	2	0.8	8	3.2	11.06	0.004
	Medium	30	12.0	63	25.2		
	Good	76	30.4	71	28.4		
Duties	Chef	27	10.8	18	7.2	6.31	0.012
	Waiter	81	32.4	124	49.6		

Table 7 is a comparison between training and the socio-demographic data (gender, education, economic situation, health status and duties) of the respondents. The correlations of Education vs Training status value is x^2 =5.34 and p=0.182 is not statistically significant. Gender (x^2 =5.34 and p=0.021), Economic situation (x^2 =11.46and p=0.003), Health status (x^2 =11.06 and p=0.004) and Duties (x^2 =6.31 and p=0.012) are statistically significant.

Table 8. Training Vs Contagious Diseases and Infections Awareness

Training		Yes	%	No	%	X	P value
Contagious diseases	Same	36	14.4	31	12.4	5.50	0.139
	More	11	4.4	24	9.6		
	Less	39	15.6	52	20.8		
	Don't know	22	8.8	35	14.0		
Work infect	Yes	46	18.4	40	16.0	10.68	0.005
	No	52	20.8	69	27.6		
	Don't know	10	4.0	33	13.2		
Other infect	Yes	43	17.2	33	13.2	16.31	0.001
	No	58	23.2	76	30.4		
	Don't know	7	2.8	33	13.2		
Cross infect	Yes	43	17.2	32	12.8	17.00	0.001
	No	52	20.8	64	25.6		
	Don't know	13	5.2	46	18.4		

The correlation of contagious diseases/infection awareness and Training is shown in table 8. While the values for contagious diseases (x^2 =5.50 and p=0.139) is statistically not important, the values for work infect (X^2 =10.68 and p=0.005), other infect (x^2 =16.31 and p=0.001) and cross infect (x^2=17 and p=0.001) are all statistically significant.

Table 9. Training PPE Usage

Training		Yes	%	No	%	X	p value
Apron/uniform	Never	18	7.2	28	11.2	1.86	0.394
	Sometimes	4	1.6	10	4.0		
	Always	86	34.4	104	41.6		
Gloves	Never	24	9.6	32	12.8	1.98	0.371
	Sometimes	17	6.8	32	12.8		
	Always	67	26.8	78	31.2		
Hat/cap	Never	38	15.2	58	23.2	1.19	0.552
	Sometimes	7	2.8	11	4.4		
	Always	63	25.2	73	29.2		
Mask	Never	58	23.2	94	37.6	14.84	0.001
	Sometimes	7	2.8	21	8.4		
	Always	43	17.2	27	10.8		
Glasses	Never	99	39.6	131	52.4	0.23	0.890
	Sometimes	4	1.6	6	2.4		
	Always	5	2.0	5	2.0		

According to the Training vs PPE comparison shown above in Table 9, the only statistically significant concept occurred in Mask where X^2 =14.84 and p=0.001. All other concepts represented (apron, gloves, hat/cap and glasses) are not statistically significant.

Table 10. Training vs Negative work impacts

Training		Yes	%	No	%	X	p value
Accident	Yes	17	6.8	18	7.2	0.48	0.489
	No	91	36.4	124	49.6		
Work-related illness	Yes	2	0.8	8	3.2	2.29	0.131
	No	106	42.4	134	53.6		
Disability	Yes	6	2.4	2	0.8	3.41	0.065
	No	102	40.8	140	40.8		
Negative impact	No	94	37.6	133	53.2	3.22	0.073
	Yes	14	5.6	9	3.6		
Suggestions	No	101	40.4	135	54.0	0.28	0.597
	Yes	7	2.8	7	2.8		

Table 10 is a presentation of the comparing Training to Negative work impact perception of the respondents. However, the investigation results of this table, all concepts (Accident, work-related illness, disability, negative impact and suggestions) are statistically insignificant.

5. DISCUSSION

5.1 Characteristics Of Participants

Men and women possess different positions in the labor market and, consequently, work exposures and the consequent health effects are different. There is an elevating awareness that professional studies need new ways to explain this diversity to improve the workplace (Doyal, 2003, Messing et. al. 2003; Johnson et. al. 2009; Eng et. al. 2011, Springer et al., 2012, Lewis and Mathiassen 2013, Locke et. al. 2014, Margaret & Peter 2018). In this study, socio-demographic data contained gender, marital status, education, health status, economic situation and duties of the participants. From the findings, majority of the workers in the food facility of Near East University were females at 68% (n=170) while the remaining population were males 32% (n=80).

More than half of the participants highest academic achievement was at the primary school level at 53.20% (n=133) while a very few percentages had a University degree at 3.2% (n=8). The rest of the population had their highest academic achievement at high school 43.6% (n=104). However, given the nature of their job, it is not a surprise that most of the participants do not possess a university/college degree. Restaurants are a large diversified industry of labor-intensive services predominantly made up of small businesses. Most employments are untrained & give low wages. Thus, they just draw in employees with almost no training and experience (Tiwari 2015).

As a result of the low or minimal wage, the economic/financial status of such workers is barely good. This is true with this study result that shows that only 4.8% (n=12) of the workers reported their economic situation to be “Good”. However, majority 73.60% (n=184) of them reported their economic situation as “medium/average”. The health status was mostly reported to be “Good” by 58.8% (n=147) respondents while 4% (n=10) reported “Bad” health status. The duties of the participants were originally divided into nine groups as follows; administrative staff, nutritionist, food transport, chef, service staff, materials transport, waiter, cleaning staff and other (cashier/receptionist). The duties of the respondents were divided into two groups, where 18% (n=45) were Chefs and 82% (n=205) were Waiters. The chef group included the administrative staff, nutritionist and chef, and other work sectors were combined to the waiter group.

5.2 Self-Reported Medical Access

Despite the potential of modern work to improve life's quality through profits and different benefits, a significant list of sociologists from Marx (1992) has perceived that numerous parts of present-day work are distancing, exploitative and even risky. From that point forward, broad research in the sociologies and wellbeing fields has focused on negative working environment exposures that can hurt wellbeing. Laborers are dependent upon different conceivably hurtful working conditions and this progressions with time. Moreover, the wellbeing impacts of working environment exposures may set aside some effort to show in a noticeable illness that requires long haul vision (Burgard and Lin 2013). Thus, it is necessary for workers in all levels to have access to quality care and medical attention as required. Table 2 is a demographic table that represents the health status of the participants with reference to where and how they seek medical attention. 37.6% (n=94) get examined in the Government Hospital while majority of the population 46.4% (n=116) get examined in a Private hospital but 16% (n=40) of the respondents reported that they do not go to the hospital when they get sick.

Given that Near East University (NEU) and the University of Kyrenia (UOK) are both private universities owning their own private hospitals, it is quite expected that most of the workers seek medical care from private hospitals. While another 37.6% of the participants use the Government hospitals, it is still a serious concern that 16% (n=40) reported that they do not go to the hospital when they are sick. There are several things that influence the attitudes of workers toward seeking medical attention, these include but is not limited to; paid sick leave, medical insurance, employer's attitude, wages/salary and more importantly, the worker's perception of his/her need to seek medical help when needed. From the findings, 97.6% (n=244) reported that they have had a medical examination on their jobs while 2.4% (n=6) reported that they have not gotten a medical examination on their jobs. Finally, 87.6% (n=219) confirmed that an intermittent portal was performed while 12.4% (n=31) reported the opposite.

5.2.1 Paid Sick Leave

Restaurant workers are a huge populace difficult to be accessed with healthcare intercessions. They might be progressively open through their workplaces; be that as it may, hardly any examinations have experienced the chance of promoting wellbeing in the work environment (Allen 2015). Notwithstanding critical clinical advances, there are as yet

straightforward answers to decrease the probability of illness and accelerate recuperation which is underutilized. Paid sick leave is a very important advantage that employers provide, as it assists workers with looking for clinical help for themselves and their families. Be that as it may, paid wiped out leave isn't as of now generally accessible to laborers around the globe (LeaAnne et al 2016). Paid sick leave offers laborers the chance to look for clinical consideration and quickens recuperation.

Past personal needs, it is to everybody's greatest advantage to guarantee that sick employees can remain at home: individuals with infectious sicknesses who go to work put their employees and & customers in danger which can prompt diseases and more noteworthy grimness and general efficiency & misfortunes (Hemp 2004, Lovell 2003 and Jody 2014). American Public Health Association supports paid sick leave allowances as a public health policy (APHA 2016). Nonetheless, numerous workers can't follow these suggestions in the event that it implies surrendering their wages or taking a chance with their employments. Without paid days off, café laborers, for instance, can go to work severely even with an illness that can be transmitted through the handling of food (Williams et. al. 2010, Gould et. al. 2013 and Aronsson et. al. 2000). Both full & part time maintenance employees without paid sick leave were less inclined to take time-off on mishaps or sickness, nonetheless, there is a greater chance that they will delay or lose treatment for themselves (Linda et al 2016). Paid sick leave permits employees (and dependents) to obtain immediate preventive or intense clinical consideration, heal faster & prevent increasing grave infections (Scheil and Sandner 2010). Food establishments ought to likewise change staff arrangements so they are not compelled to get their substitution when they are unwell (Clayton et al 2015).

5.3 Work-Related Risk Awareness

People touch and carry various potential pathogens on a daily basis; some of which could possibly lead to infections (Sujan et. al. 2019). Small-scale industry employees are a vulnerable professional group that is regularly and regularly exposed to many accidental, physical, chemical hazards. The main reasons for this risk factors are the lack of education, insufficient awareness and knowledge of the risks of OSH and lack of availability or use of personal protective equipment (PPE) (Sujan et. al. 2019). Table 3 is a work-related demographic table that shows the knowledge and awareness level of the respondents on work-related risks of infection transmission and contagious disease. 43.2% (n=108) reported that

they received vocational training related to their works while more respondents 56.8% (n=142) did not received vocational training related to their works; indicating that most of the working population respondents have not had prior training related to their job/work.

Majority of the respondents 36.4% (n=91) confirmed that the existing work had "Less" risks of getting contagious diseases compared to workers working in hotels & government offices but 14% (n=35) reported "More" risks of getting contagious diseases. However, 22.8% (n=57) reported that they "Don't Know" if there's a risk for contagious diseases. Most respondents 48.2 (n=121) agree that it is "Not" possible to get infected during work and 17.2% (n=43) of the respondents "Don't Know" if it is possible to get infected during work. The lowest 16% (n=40) of the participants "Don't Know" if it is possible to infect other people during work while most 53.6% (n=134) of them said it is "Not possible" to infect other people during work. The lowest 23.6% (n=59) of the participants "Don't Know" if it is possible to infect one person to another during work while most 46.4% (n=116) of them said it is "Not possible" to infect one person to another during work. It is important to note that in the last four groups (contagious disease, work infect, other infect and cross infect) of table 3, the highest proportion of workers reported that there is less risk of contagious diseases and no risk for infections. However, considering the lower level of training of most of the workers, it is safe to say that this response could be due to the lack of knowledge of the depth of the subject matter (infections and contagious diseases). Small-scale industrial workers are less aware of OSH results from workplace exposures, activities and materials (Ahmad et al., 2017). Literature has demonstrated that they lack understanding, knowledge and information on the correct use of PPE among such workers & that utilizing PPE in small industries is essentially small and inconsistent (Ahmad et al., 2017; Taha, 2000). Furthermore, the low level of education can increase the lack of use of personal protection measures, since they do not know, recognize or appreciate the importance of PPE (Taha, 2000). Thus, it is necessary to train workers not only on PPE uses but also about the relationship between their environment and infections transfer.

5.4 Workers Personal Protective Equipment Usage

There are different types of bio-chemical & physical risks in the work environment. To shield workers from such perils, it isn't questionable that ecological administration measures to eliminate or lessen these destructive factors and refine the nature of the working environment

through a building approach are principal arrangements. Nonetheless, in actuality, many places of work exist where such decidedly compelling measures can't be executed. In such circumstances, a work approach that utilizes PPE is viewed as another option and noteworthy method for securing laborers' wellbeing and wellbeing (Sawanda et. al. 2017).

The Occupation Safety and Health Administration (OSHA) calls for the adoption of all possible measures for the health and safety of workers against risks and risks in the workplace. Depending on the type and level of risk, OSHA recommends using different control measures (elimination, replacement, engineering, administration, PPE) to eliminate or minimize hazards (OSHA, 2004). PPE (in the United Kingdom) is defined as the Personal Protective Equipment Regulation of 2002 and the Personal Protective Equipment Regulation of 1992 as "all equipment intended to be used or held by a person at work and which protects you from one. or more hazards and risks to your health or safety" e.g. gloves, goggles, respirators, earplugs, helmets, knee protectors, visors, full body protections, safety shoes and harnesses Safety, when health risks cannot be avoided or processes cannot be refined, utilizing appropriate PPE can be an effective technique to protect workers' health (Apriko et al., 2015). Table 4 represents the frequency at which the study participants use PPE while working. 76% (n=190) "

Always" use Aprons/Uniform while working and 5.6% (n=14) use Aprons/Uniform "Sometimes". More than half of the participants 58% (n=145) "Always" use gloves, 19.6% (n=49) "Sometimes" use gloves and 22.4% (n=56) "Never" use gloves during work. 54.4% (n=136) reported that they "Always" use hat/cap during work while 7.2% (n=18) sometimes use the hat/cap while working. Majority of the respondents 60.8% (n=152) reported that they "Never" use the mask, 28% (n=70) "Sometimes" use the masks and 11.2% (n=28) "Always" use the mask while working. Majority of the respondents 92% (n=230) "Never" use glasses while an equal amount of the remaining respondent population 4% (n=10) reported "Sometimes" and 4%(n=10) reported that they "Always" use glasses when working. From these findings, the most used PPE was the Apron/Uniform and gloves while the least used PPEs was the glasses (eye goggles) and masks.

While the variations in the PPE use can be due to the different duties each worker perform, the PPEs that are underused are cause for concern as every worker at one point or another needs to use the masks. As for the protective glasses, the reason for the negative comments is most likely because most of the workers are in the waiter group.

Failure to use PPE can expose workers to many dangers and risks of OSH which can ultimately cause serious health consequences (Ahmad et al., 2016). PPEs play an essential role in reducing accidents at work and accidents that would otherwise result in serious human suffering and financial losses due to reduced production, heavy fines, compensation for illness, insurance and absenteeism (Taha 2000, Mansour et to 2019).

5.5 Personal Hygiene (Uniform Washing) And Vaccination

Personal hygiene is a major risk factor that influences food-borne diseases (Heyao et al 2017). Restaurants/food places can be dangerous places to work due to the characteristics of the company, the equipment used and the completed activities (Nabeel and Alamgir 2018). In general, the food administrators training is seen as a platform through which food and workers protection practices can be improved, giving the food business long-haul advantages (Green et. al. 2006, Ulusoy and Colakoglu 2018).

The lack of knowledge of the hygiene and perception of food managers assume a significant part in the outbreaks. Hand hygiene is closely linked with infection control practices, but the practice of hand hygiene recommendations is scarce worldwide (Jumaa 2005). According to table 5, more than half 60.4% (n=151) “have” a personal wardrobe at work and 39.6% (n=99) do not have their own wardrobes at work. 56.4% (n=141) “do not” keep their business clothes and daily clothes in the closet in the same place while 43.6% (n=109) keep their business and daily clothes in the same place inside the closet. Majority 90% (n=225) reported a “suitable” habit of washing their uniforms while 10% (n=25) had an “unsuitable” habit of washing their uniforms. 64.4% (n=161) “do not” take off their work uniform while they eat and 35.6% (n=89) reported that they take off their work uniform while they eat. 77.2% (n=193) take off their work uniform when going to and from the workplace and 22.8% (n=57) do not take off their work uniform when going to and from the workplace.

To encourage uniform and its cleaning requirements, restaurant service staff must have regular access to washing machines and dryers at the workplace and on the other hand, have the chance to wash working clothes through a working environment washing administration platform that is free (which is principally set up for towels &aprons in numerous café administration settings). Likewise, nourishment foundations must have uniform conveyance strategies that give in any event the same number of outfits (all segments: pants, shirts, coats, and so on.) as the staff working days in seven days. Additional working clothes

of varying sizes must also be available to support hygiene practices at busy times when workers may not be able to clean their clothes before returning to work (Megan et al 2015).

Finally, majority of the respondent 36.4% (n=91) have “never” had either hepatitis or tetanus vaccine and 32% (n=80) have had “both” hepatitis and tetanus vaccine. Amanda et al (2015) reported restaurant employees who received vaccines did not necessarily do so because of strong positive attitudes. This proves that workers do not have adequate awareness concerning the proactive use of vaccines and how it is very advantageous to their health. Workplace vaccination events can be expensive, as they take time from the healthcare professional and divert time from employee work; Some employers may not like the idea of funding vaccination events without understanding the economic consequences (Lee et al 2010). If these negative perceptions of vaccine relevance and effectiveness could be transformed/changed through educational outreach fitted to this audience, vaccination rates might be raised (Amanda et al 2015).

For many professional groups, vaccination can even save costs; Employers could earn money with such programs. As grown-ups invest a great deal of energy in the work environment, a manager's choice to actualize a vaccination/inoculation program in the working environment can significantly affect individuals' wellbeing, the work environment and the entire populace. Representative wellbeing it is fundamental for profitability in the workplace& even for local, national and global infrastructure and economies (Lee et al 2010).

5.6 Negative Work Impacts And Accidents Occurrences

Table 6 shows the amount of negative impacts that the workers perceive to be directly/indirectly related to the workplace. In this regard, 86% (n=215) reported that they have “never” had an accident during work and 14% (n=35) have had accidents while working. Majority 96% (n=240) of the participants reported that they have “never” had any work-related illness while 4% (n=10) have had work-related illnesses. 96.8% (n=242) “do not” have a permanent disability associated with any of their works during employment while 3.2% (n=8) have a permanent disability associated with their works during employment. Overall, 90.8% (n=227) do not perceive that their works have a bad /unwanted impact on their well-being and health and 9.2% (n=23) responded that their works have a bad /unwanted impact on their well-being and health. Even though the feedback is mostly good, this could be due to lack of awareness and adequate knowledge about work related problems. For example, stress from

workload can lead to lesser immunity in the body. The long-time effect of continuous stress can eventually cause the body to break down. In addition to the physical effects of long-time stress, there is also the psycho-social effects such as mood swings, anxiety, disturbed inter-personal relationships, etc. Because the signs and symptoms of stress do not occur immediately, it is easy to not know the original source of the signs and symptoms. This and many other common but underestimated factors need to be addressed and reduced if not eliminated.

The environment is defined as man's immediate surrounding, which he can control/ influence for his existence or survival. If this environment is not properly controlled, it can cause unsafe situations, which makes human survival difficult. The dangers of a poorly managed environment can hinder employee productivity rates and reduce motivation (Pepple et al 2017). Effective communication in the workplace is the key to cultivating success and professionalism (Quilan 2001). The outcomes of the investigation by Pepple et. al. (2017) showed the consequences of the environmental factor on the workplace on the performance and productivity of health workers and recommended to focus efforts on refining the socio-physical surroundings and the work structure related to the workplace.

This consolidates adequate work aid, ventilation, help from supervisor, lighting, persuading powers, acceptable affirmation and prize system and general establishment. Despite being crucial for healthcare professionals to give top-notch care, this could propel the satisfaction of healthcare professionals, growing the benefits of the endeavor. Finally, 94.4% (n=236) had no suggestions on how to minimize the negative effects of work on their health while 5.6% (n=14) gave suggestions on how to reduce the negative impact of work on their well-being and health.

5.7 The Effects Of Training On Employee Awareness, Knowledge And Behaviors

Workers are vital assets of all organizations. The dynamic role they assume in an organization's prosperity can't be disregarded. Thus, giving these remarkable assets efficacious straining gets significant for expanding work execution. This likewise pushes them to confront the difficulties of the present competitive trading conditions (Aidah 2013). It is important not to ignore the predominant evidence on knowledge growth in corporate trading world over the past decade. This growth occurred not only through technological improvements or a mix of production concepts, yet in addition through more prominent endeavors for the improvement of the organization's human resources (Aidah 2013).

As presented in Table 7, the findings of the comparation of training and education is not statistically significant. However, Gender (x^2 =5.34 and p=0.021), Economic situation (x^2 =11.46and p=0.003), Health status (x^2 =11.06 and p=0.004) and Duties (x^2 =6.31 and p=0.012) are statistically significant. As indicated by the Centers for Disease Control & Prevention (CDC) update in 2017, around 50million people pave way for food-borne illnesses each year, causing deaths of around 3thousand people.

The World Health Organization [Nada et al 2019] gauges that kids matured five years and under-represented to 40% of the weight of foodborne ailment. In any case, all inclusive, the developing familiarity with foodborne sicknesses that trigger critical dangers for wellbeing, social improvement, monetary advancement and food security remains insignificant [WHO 2017]. While the relationship between training and contagious diseases as shown in Table 8 is not statistically significant, the "possibility to be infected during work" (X^2 =10.68 and p=0.005), the "possibility to infect others during work" (x^2 =16.31 and p=0.001) and the "possibility to infect one another while working" (x^2 =17 and p=0.001) are statistically significant. Developed nations routinely dispatch national activities to teach buyers and food managers. However, limited efforts have been made in developing countries. [Haapala and Probart 2004].

Health and safety are important because employee well-being is important. Having adequate knowledge about infections and diseases, mode of transmission, the control and protective measures is vital to ensure the right attitudes, the use of protective practices and equipment among workers. From Table 9, it is noted that the majority of the study participants "with" 23.2% (n=58) and "without training" 37.6% (n=94) never use the mask. This is also reflected as a statistically significant difference (X^2 =14.84 and p=0.001) in the comparison between Training and PPE usage.

Finally, no element in Table 10 (which shows the comparatition of training vs workers perception of the negative impacts of their work/job) is statistically significant. This could be sincere satisfaction or simply the evidence of ignorance/lack of knowledge. The primary target of the preparation entails getting and improving capacities, data, and mindsets towards endeavors related to business. It is a vital prospective motivator that can provoke short- and long stretch advantages for individuals and affiliations. There are tremendous quantities of great benefits related with planning. Cole (2002) plots these focal points as; optimistic mood,

lower production costs, change management, recognition, greater responsibility and higher wages and promotions; and these helps improve staff availability and quality.

Employees are the bloodstream of any company. A company's success or disaster depends on the performance of its employees. Therefore, senior management understands the importance of investing in advancement and training so as to improve employee accomplishment (Amir and Amen 2013). Knowledge is power. The lack of information about important matters can lead to many preventable unexpected outcomes. Employers and managements of food firms should take it upon themselves to properly train their employees in areas of deficit. The long-term benefit of such training cannot be over-estimated. This strategy is not just proactive, its saves lives, human and economic costs and also improves productivity in business. Socio ecological theory expressed that interventions on food safety will be more effective if they consider the various concepts affecting employees' hygiene & health practices (Megan et. al. 2015).

Training is an arranged and deliberate movement and translates into a more acute skills phase, understanding information and competences needed effectively do the job (Gordon 1992). It is important that organizations help their workforce to acquire the necessary skills and increase engagement (Aidah 2013). Training is shown to generate benefits related to improving employee performance and the organization in general, positively influencing employee performance by developing employee knowledge, skills, abilities, skills and behavior. employees (Harrison 2000; Guest 1997). Different organizations adopt different training strategies for different reasons, for example; Dependent upon the organization's system, objectives and open resources, in perspective on the perceived needs and the target social affair to be surrounded, which may consolidate particular authorities, get-togethers, gatherings, workplaces or the entire affiliation (Aidah 2013). Although previous reports indicated that greater understanding of food safety training do not necessarily oblige to revamp food safety attitudes and practices [Roberts 2008, Pilling 2008, Mortlock 2000], the results of Hezekiah et al (2015) suggest that better behavior could be increased by providing regular training to food managers. Despite growing effects on organizations' training of employees, the literature on human resource development problems in developing countries is still insufficient (Debrah and Ofori 2006).

Relatively short training remains essential to improve food safety behavior among restaurant service workers. The results showed that prolonged training time does not really

imply an increase in knowledge or better behavior. On the other hand, better execution could be cultivated when the training term is quite short (Hezekiah et al 2015). Thus, it is the obligation of all establishments to improve workers performance and the use of planning is totally one of the essential advances that most establishments need to achieve this target (Aidah 2013). Harrison's (2000) work shows that learning through training impacts the achievement of the establishment by improving worker performance and is referred to as a vital element in achieving business goals. Nevertheless, training projects utilization as a response to cover performance issues, for instance, to traverse any hindrance among standard and genuine execution, is a beneficial technique to improve the performances of workers (Swart et al., 2005).

6. CONCLUSION AND SUGGESTIONS

6.1. Conclusion

In the study;

1. participants, 32% (n=80) were male. The marital status was divided into 3 groups, 72.8% (n=182) were married. For the education status, majority of the participants highest academic achievement was primary school at 53.20% (n=133).

2. The economic situation of the participant population was mostly reported as “Medium”, 73.60% (n=184). The health status was mostly reported to be “Good”.

3. The duties of the respondents were divided into two groups, where 18% (n=45) were Chefs and 82% (n=205) were Waiters. 97.6% (n=244) participant was reported that they have had a medical examination on their jobs 87.6% (n=219) confirmed that an intermittent portal was performed while 12.4% (n=31) reported opposite.

4. Participant risks of infection transmission and contagious disease was 43.2% (n=108) reported Majority of the respondents 36.4% (n=91) confirmed that the existing work had “Less” risks. Most respondents 48.2 (n=121) agree that it is “Not” possible to get infected during work.

5. The lowest 23.6% (n=59) of the participants “Don’t Know” if it is possible to infect one person to another during work.

6. A comparison between training and the socio-demographic data (gender, education, economic situation, health status and duties) of the respondents. The correlations of Education vs Training status value (x^2 =5.34 and p=0.182) is not statistically significant. Gender (x^2 =5.34 and p=0.021), Economic situation (x^2 =11.46and p=0.003), Health status (x^2 =11.06 and p=0.004) and Duties (x^2 =6.31 and p=0.012) are statistically significant.

7. Training to Negative work impact perception of the respondents. However, from the results of this table, all concepts (Accident, work-related illness, disability, negative impact and suggestions) are statistically insignificant.

8. The correlation of contagious diseases/infection awareness and Training is shown in while the values for contagious diseases (x^2 =5.50 and p=0.139) is statistically not important, the values for work infect (X^2 =10.68 and p=0.005), other infect (x^2 =16.31 and p=0.001) and cross infect (x^2 =17 and p=0.001) are all statistically significant.

6.2. Suggestions

The mostly seen work factors that influence food security practices incorporate time duress, lack of staff, increased volume of customers, unreasonable outstanding task at hand, the executives/representative accentuation on methods and issues, sufficient with assets and plan in the work environment (for example, uncomfortable sink position, small spaces).

1. Interventions should concentrate on furnishing workers with the facilities & equipment expected to carry out their responsibility.
2. Worker satisfaction must be the goal of improvement. To ensure that workers adhere to the practices, food facilities depend predominantly on safety/security training.
3. Knowledge-based preparing only might be deficient to advance preventive nourishment practices and personal safety. An improved and successful security preparing approach that can straightforwardly impact employee conduct is emphatically suggested.
4. Involvement of workers in the development of these activities can cause the need to be more effectively identified and considered within the food facility safety plans. Food facilities should also change staffing policies so that workers do not face the fear or of being replaced when out sick.
5. For appropriate washing of hands and utilization of gloves, strategies need to be developed by food facilities to prevent under-staffing (including through hiring additional staff to fill in during busy customer hours) and stock sufficient quantities of glove types (latex and single use) and sizes. Food facilities should also order gloves to reflect the composition and preferences of staff, such as smaller sizes for some women or enough latex for workers who desire this option. Food facilities should also use soap that is less harsh and abrasive on workers' hands, especially after repeated use.
6. Management should preserve the standards/quality of food safety using proper hygiene enforcement, practices and reminders. Finally, the creation and usage of food safety solution activities should be conducted with contributions from worker health and safety regulators.

REFERENCES

1. Matthew N. O. Sadiku | Sarhan M. Musa | Tolulope J. Ashaolu "Food Industry: An Introduction" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456- 6470, Volume-3 | Issue-4, June 2019, pp.128-130, URL: https://www.ijtsrd.c om/papers/ijtsrd23 638.pdf
2. Ulusoy, B.H., Çolakoğlu, N. (2018). What Do They Know About Food Safety? A Questionnaire Survey on Food Safety Knowledge of Kitchen Employees in Istanbul. Food and Health, 4(4), 283-292. DOI: 10.3153/FH18028
3. Mortlock, M.P., Peters, A.C., Griffith, C. (1999). Food hy- giene and HACCP in the UK food industry, practices, perceptions and attitudes. *Journal of Food Protection*, 62, 786-792.
4. AtiqahFarahin Ab Latif, ChemahTambyChik&NorlizaAminudin. 2011. Young Kitchen Staffs Safety In Fast Food Restaurants: Conceptual Paper. Pp 110-115
5. Focus Report: Preventing Injuries to Hotel and Restaurant Workers (2001). Workers' Compensation Board of British Columbia.
6. Giovanis, N. (2010). The Measurement of Health and Safety Conditions at Work Theoretical Approaches, Tools and Techniques a Literature Review. *International Research Journal of Finance and Economics* 36, 87-95.
7. Burke, M.J. and Signal, S.M. (2010). Workplace Safety: A multilevel, Interdisciplinary Perspective. *Research in Personnel and Human Resources Management* 29, 1-47. Ali, H., Abdullah, N.A.C., and Subramaniam, C. (2009). Management Practice in Safety Culture and its Influence on Workplace Injury: An Industrial Study in Malaysia. *Disaster Prevention and Management* 18, no 5: 470- 477.
8. AzanawJember, MulatGebrehiwot and HenokDagne. 2019. Factors associated with food safety practices among food handlers: facility-based cross-sectional study. *12:683*
9. Girma G. Prevalence, Antibiogram and Growth Potential of Salmonella and Shigella in Ethiopia: implications for Public Health: a Review. Res J Microbiol. 2015;10(7):288. (Azanaw*et al. 2019)*
10. Gizaw Z, Gebrehiwot M, Teka Z. Food safety practice and associated factors of food handlers working in substandard food establishments in Gondar Town, Northwest Ethiopia, 2013/14. Int J Food Sci Nutr Diet. 2014;3(7):138–46.

11. Kibret M, Abera B. The sanitary conditions of food service establishments and food safety knowledge and practices of food handlers in Bahir Dar town. Ethiop J Health Sci. 2012;22(1):27–35.
12. Al-Shabib NA, Mosilhey SH, Husain FM. Cross-sectional study on food safety knowledge, attitude and practices of male food handlers employed in restaurants of King Saud University, Saudi Arabia. Food Control. 2016;59:212–7.
13. Wambui J, Karuri E, Lamuka P, Matofari J. Good hygiene practices among meat handlers in small and medium enterprise slaughterhouses in Kenya. Food Control. 2017;81:34–9.
14. Asmawi UMM, Norehan AA, Salikin K, Rosdi NAS, Munir NATA, Basri NBM. An assessment of knowledge, attitudes and practices in food safety among food handlers engaged in food courts. Curr Res Nutr Food Sci J. 2018;6(2):346–53.
15. Tiwari RR (2015) Situational Analysis of Occupational Health Issues of Restaurant and Dhaba Workers. Occup Med Health Aff 3: 224. doi:10.4172/2329-6879.1000224
16. Centers for Disease Control and Prevention (CDC) (2003) Hepatitis A outbreak associated with green onions at a restaurant-Monaca, Pennsylvania.MMWRMorb Mortal Wkly Rep; 52: 1155-1157.
17. Bustan MA, Udo EE, Chugh TD (1996) Nasal carriage of enterotoxin- producing Staphylococcus aureus among restaurant workers in Kuwait City. Epidemiol Infect; 116: 319-322.
18. Biswas D, Hazarika NC, Hazarika D, Mahanta J (1999) Prevalence of communicable disease among restaurant workers along a highway in Assam, India. Southeast Asian J Trop Med Public Health; 30: 539-541.
19. Al-Shibani LA, Azazy AA, Alhamd JH (2009) Intestinal parasitosis among apparently healthy workers at restaurants of Sana'a City, Yemen. J Egypt SocParasitol; 39: 263-268.
20. Teo S, Goon AT, Siang LH, Lin GS, Koh D (2009) Occupational dermatoses in restaurant, catering and fast-food outlets in Singapore. Occup Med; 59: 466-471.
21. Kim IJ (2016) Safety and Health Practices in the Food Industry and Ergonomic Interventions. J Ergonomics 6: e146. doi: 10.4172/2165-7556.1000e146

22. Newman KL, Leon JS, Newman LS (2015) Estimating Occupational Illness, Injury, and Mortality in Food Production in the United States: A Farm-to- Table Analysis. J Occ Environ Me.
23. Sbizue T (1993) Occupational Safety and Health in the Food and Drink Industries: Sectoral Activities Programme, Working Papers, Industrial Activities Branch. International Labour O ce.
24. Bureau of Labor Statistics. Workplace Injuries and Illnesses—2010. Available online: https://www.bls.gov/ news.release/archives/osh_10202011.pdf (accessed on 22 October 2018).
25. Baron, S.L.; Beard, S.; Davis, L.K.; Delp, L.; Forst, L.; Kidd-Taylor, A.; Liebman, A.K.; Linnan, L.; Punnett, L.; Welch, L.S. Promoting integrated approaches to reducing health inequities among low-income workers: Applying a social ecological framework. *Am. J. Ind. Med.* 2014, *57*, 539–556. [CrossRef]
26. Steege, A.L.; Baron, S.L.; Marsh, S.M.; Menendez, C.C.; Myers, J.R. Examining occupational health and safety disparities using national data: A cause for continuing concern. *Am. J. Ind. Med.* 2014, *57*, 527–538. [CrossRef]
27. Busch, C.; Koch, T.; Clasen, J.; Winkler, E.; Vowinkel, J. Evaluation of an organizational health intervention for low-skilled workers and immigrants. *Hum. Relat.* 2017, *70*, 994–1016. [CrossRef]
28. Marmot, M.; Bell, R. Challenging health inequalities—Implications for the workplace. *Occup. Med.* 2010, *60*, 162–164. [CrossRef]
29. Bauer, G.F.; Huber, C.A.; Jenny, G.J.; Muller, F.; Hammig, O. Socioeconomic status, working conditions and self-rated health in Switzerland: Explaining the gradient in men and women. *Int. J. Public Health* 2009, *54*, 23–30. [CrossRef] [PubMed]
30. Borrell, C.; Muntaner, C.; Benach, J.; Artazcoz, L. Social class and self-reported health status among men and women: What is the role of work organisation, household material standards and household labour? *Soc. Sci. Med.* 2004, *58*, 1869–1887. [CrossRef]
31. Glorian Sorensen, Susan Peters, Karina Nielsen, Eve Nagler, Melissa Karapanos, Lorraine Wallace, Lisa Burke, Jack T. Dennerlein and Gregory R. Wagner. 2019. Improving Working Conditions to Promote Worker Safety, Health, and Wellbeing for Low-Wage Workers: The Workplace Organizational Health Study. *Int. J. Environ. Res.*

Public Health 2019, *16*, 1449; doi:10.3390/ijerph16081449 www.mdpi.com/journal/ijerph

32. Adesoji O. Adelaja , Rodolfo M. Nayga Jr. , Karen Tank & Brian J. Schilling (1999) Challenges Facing the Foodservice Industry, Journal of Restaurant & Foodservice Marketing, 3:3-4, 123-138, DOI: 10.1300/J061v03n03_09 http://dx.doi.org/10.1300/J061v03n03_09
33. Egan, M. B., Raats, M. M., Grubb, S. M., Eves, A., Lumbers, M. L., Dean, M. S., & Adams, M. R. (2007) A review of food safety and food hygiene training studies in the commercial sector. *Food Control*, *18*, 1180-1190.
34. Green, L. R., Selman, C. A., Radke, V., Ripley, D., Mack, J. C., Reimann, D. W., Stigger, T., Motsinger, M., & Bushnell, L. (2006). Food worker hand washing practices: an observation study. *Journal of Food Protection*. *69*(10), 2417-2423.
35. Chapman, B., Eversley, T., Fillion, K., MacLaurin, T., & Powell, D. (2010). Assessment of food safety practices of food ser- vice food handlers (risk assessment data): Testing a commu- nication intervention (evaluation of tools). *Journal of Food Protection*, *73*, 1101-1107.
36. Powell, D. A., Jacob, C. J., & Chapman, B. J. (2011). Enhancing Food Safety Culture to Reduce Rates of Foodborne Illness. *Food Control*, *22*, 817-822.
37. Taylor, P. J., Russ-Eft, D. F., & Chan, D. W. (2005). A meta- analytic review of behavior modeling training. *Journal of Applied Psychology*, *90*, 692-709.
38. Krause, T. R., Seymour, K. J., &Sloat, K. C. M. (1999). Long- term evaluation of a behavior-based method for improving safety performance: A meta-analysis of 73 interrupted time-series replications. *Safety Science*, *32*, 1-18.
39. Heyao Yu, Jay Neal, Mary Dawson, and Juan M. Madera 2018. Implementation of Behavior-Based Training Can Improve Food Service Employees' Handwashing Frequencies, Duration, and Effectiveness. Cornell Hospitality Quarterly, Vol. 59(1) 70–77
40. Ulusoy, B.H., Çolakoğlu, N. (2018). What Do They Know About Food Safety? A Questionnaire Survey on Food Safety Knowledge of Kitchen Em- ployees in Istanbul. Food and Health, 4(4), 283-292. DOI: 10.3153/FH18028

41. Mortlock, M.P., Peters, A.C., Griffith, C. (1999). Food hy- giene and HACCP in the UK food industry, practices, perceptions and attitudes. *Journal of Food Protection*, 62, 786-792.
42. Messing K, Punnett L, Bond M *et al*. (2003) Be the fairest of them all: challenges and recommendations for the treatment of gender in occupational health research. *Am J Ind Med*; **43**: 618–29
43. Doyal L. (2003) Sex and gender: the challenges for epidemiolo- gists. *Int J Health Serv*; **33**: 569–79.
44. Johnson JL, Greaves L, Repta R. (2009) Better science with sex and gender: facilitating the use of a sex and gender-based analysis in health research. *Int J Equity Health*; **8**: 14.
45. Eng A, 't Mannetje A, McLean D *et al*. (2011) Gender differ- ences in occupational exposure patterns. *Occup Environ Med*; **68**: 888–94.
46. Springer KW, MagerStellman J, Jordan-Young RM. (2012) Beyond a catalogue of differences: a theoretical frame and good practice guidelines for researching sex/gender in human health. *Soc Sci Med*; **74**: 1817–24.
47. Lewis C, Mathiassen SE. (2013) *State of knowledge re- port, physical work, gender, and health in working life*. Stockholm: Swedish Work Environment Authority.
48. Locke SJ, Colt JS, Stewart PA *et al*. (2014) Identifying gender differences in reported occupational information from three US population-based case-control studies. *Occup Environ Med*; **71**: 855–64.
49. Margaret M. Quinnand Peter M. Smith (2018). **Gender, Work, and Health**. *Annals of Work Exposures and Health,* 2018, Vol. 62, No. 4, 389–392 doi: 10.1093/annweh/wxy019
50. Sarah A. BurgardandKatherine Y. Lin (2013). Bad Jobs, Bad Health? How Work and Working Conditions Contribute to Health Disparities. Am Behav Sci. 2013 August ; 57(8): . doi:10.1177/0002764213487347.
51. Marx, K. Capital: A Critique of Political Economy. Vol. 1. New York: Penguin Classics; 1992.
52. Jody Heymann and Mark Daku (2014). Ensuring equitable access to sick leave. CMAJ, 186(13), pp 975-976. DOI:10.1503 /cmaj.131841

53. Hemp P. Presenteeism: at work — but out of it. *Harv Bus Rev* 2004;82:49-58. Available: http://hbr.org/2004/10/presenteeism- at-work-but-out-of-it/ar/1 (accessed 2013 Dec. 15).
54. Lovell V. *No time to be sick*: *Why everyone suffers when workers don't have paid sick leave*. Washington (DC): Institute for Women's Policy Research; 2003. Available: www.aecf.org/KnowledgeCenter /Publications.aspx?pubguid=%7B50A11398-25A7-41D0-8B56 -2C2276D9BC9B%7D (accessed 2013 Dec. 15).
55. Williams C, Drago R, Miller K. *44 million US workers lacked paid sick days in 2010: 77 percent of food service workers lacked access*. Washington (DC): Institute for Women's Policy Research; 2011. Available: www.iwpr.org/publications/pubs/44-million-u.s.-workers -lacked-paid-sick-days-in-2010-77-percent-of-food-service-workers -lacked-access (accessed 2013 Dec. 15).
56. Gould LH, Rosenblum I, Nicholas D, et al. Contributing factors in restaurant-associated foodborne disease outbreaks, FoodNet Sites, 2006 and 2007. *J Food Prot*2013;76:1824-8.
57. Aronsson G, Gustafsson K, Dallner M. Sick but yet at work: an empirical study of sickness presenteeism. *J Epidemiol Community Health* 2000; 54:502-9.
58. Allen CL, Hammerback K, Harris JR, Hannon PA, Parrish AT. Feasibility of Workplace Health Promotion for Restaurant Workers, Seattle, 2012. Prev Chronic Dis 2015;12:150093. DOI: http://dx.doi.org/10.5888/ pcd12.150093.
59. LeaAnneDeRigne, Patricia Stoddard-Dare, and Linda Quinn (2016). Workers Without Paid Sick Leave Less Likely To Take Time Off For Illness Or Injury Compared To Those With Paid Sick Leave. HEALTH AFFAIRS 35, NO. 3 (2016): 520–527. doi: 10.1377/hlthaff.2015.0965
60. Scheil-Adlung X, Sandner L. The case for paid sick leave. Geneva: World Health Organization; 2010. (World Health Report Background Paper No. 9).
61. American Public Health Association. Support for paid sick leave and family leave policies [Internet]. Washington (DC): APHA; c 2016 [cited 2016 Feb 5]. Available from: https://www.apha.org/policies-and- advocacy/public-health-policy- statements/policy-database/2014/ 07/16/11/05/support-for-paid-sick- leave-and-family-leave-policies
62. Sujan C. Reddy, Amy L. Valderrama, and David T. Kuhar (2019). Improving the Use of Personal Protective Equipment: Applying Lessons Learned. **69(S3):S165–70**

63. Ahmad, I., Balkhyour, M.A., Abokhashabah, T.M., Ismail, I.M., Rehan, M., 2017. Workplace safety and health conditions and facilities in small industries in Jeddah, Saudi Arabia. J. Safety Stu. 3, 37–52.
64. Taha, A.Z., 2000. Knowledge and practice of preventive measures in small industries in Al-Khobar Saud. Med. J. 21, 740–745.
65. Shin-IchiSawada,KalevKuklane, Kaoru Wakatsuki, Hideaki Morikawa (2017). New development of research on personal protective equipment (PPE) for occupational safety and health. Industrial Health 55, 471-472
66. Ahmad, I., Rehan, M., Balkhyour, M., Abbas, M., Basahi, J., Almeelbi, T., Ismail, I.M., 2016. Review of environmental pollution and health risks at motor vehicle repair workshops challenges and perspectives for Saudi Arabia. Int. J. Agric. Env. Res. 2, 1–23.
67. Apreko, A.A., Danku, L.S., Apeletey, M.S.A.A.F., 2015. Occupational health and safety management: the use of personal protective equipment (Ppe) by Artisans in the local automotive industry in Volta Region. Ghana. Int. J. Eng. Trends Tech. 19, 201–205.
68. OSHA, 3151-12 R. Personal Protective Equipment. U.S. Department of Labor. 2004. (cited 2020 17 Jan); Available from: <https://www.osha.gov/Publications/ osha3151.pdf>.
69. Mansour A. Balkhyour, Ijaz Ahmad, Mohammad Rehan (2019). Assessment of personal protective equipment use and occupational exposures in small industries in Jeddah: Health implications for workers. Saudi Journal of Biological Sciences 26 (2019) 653–659
70. Heyao Yu, Jay Neal, Mary Dawson, and Juan M. Madera (2017). Implementation of Behavior-Based Training Can Improve Food Service Employees' Handwashing Frequencies, Duration, and Effectiveness. Cornell Hospitality Quarterly 2018, Vol. 59(1) 70–7
71. P.A. Jumaa. 2005. Hand hygiene: simple and complex. 9, 3—14.
72. Nabeel I and Alamgir H. Restaurant Inspection Reports as a Proxy Measure for Occupational Health and Safety: South Asian Restaurant Workers in New York City. Annals of Global Health. 2018; 84(3), pp. 495–499. DOI: https://doi.org/10.29024/aogh.2332

73. Amanda T. Parrish, Meredith C. Graves, Jeffrey R. Harris, Peggy A. Hannon, Kristen Hammerback, Claire L. Allen (2015). Influenza Vaccination Status and Attitudes Among Restaurant Employees. J Public Health Management Practice, 2015, 21(3), E10–E15
74. Bruce Y. Lee, MD, MBA, Rachel R. Bailey, MPH, Ann E. Wiringa, MPH, Abena Afriyie, Angela R. Wateska, MPH, Kenneth J. Smith, MD,MS, and Richard K. Zimmerman (2010). Economics of Employer-Sponsored Workplace Vaccination to Prevent Pandemic and Seasonal Influenza. 23; 28(37): 5952–5959. doi:10.1016/j.vaccine.2010.07.003.
75. Pepple NM, Akpan EU, Edem MJ (2017) Impact of Workplace Environment on Health Workers. Occup Med Health Aff 5: 261. doi: 10.4172/2329-6879.1000261
76. Quilan M (2001) Precarious employment: Work re-organization and the factoring of OHS management. International Journal of Systematic Occupational Health and Safety Management 24: 175-178.
77. Megan L. Clayton, Katherine Clegg Smith, Roni A. Neff, Keshia M. Pollack, Margaret Ensminger (2015). Listening to food workers: Factors that impact proper health and hygiene practice in food service. International Journal of Occupational and Environmental Health. VOL. 21 NO. 4, pp 314-327
78. Ellis JD, Arendt SW, Strohbehn CH, Meyer J, Paez P. Varying influences of motivation factors on employees' likelihood to perform safe food handling practices because of demographic differences. J Food Prot. 2010; 73:2065–71.
79. Hedberg CW, Smith SJ, Kirkland E, Radke V, Jones TF, Selman CA. Systematic environmental evaluations to identify food safety differences between outbreak and non-outbreak restaurants. J Food Prot. 2006; 69:2697–702.
80. Green L, Selman C, Banerjee A, Marcus R, Medus C, Angulo FJ, et al. Food service workers' self-reported food preparation practices: an EHS-Net study. Int. J. of Hyg. Environ. Health. 2005;208:27–35.
81. Green L, Selman C. Factors impacting food workers' and managers' safe food preparation practices: a qualitative study. Food Prot. Trends. 2005;25:981–90.
82. Carpenter LR, Green AL, Norton DM, Frick R, Tobin-D'Angelo M, Reimann DW, et al. Food worker experi- ences with and beliefs about working while ill. J Food Prot. 2013;76:2146–54.

83. Pragle AS, Harding AK, Mack JC. Food workers' perspectives on handwashing behaviors and barriers in the restaurant environment. J. Environ. Health. 2007;69:27–32.
84. Pepple NM, Akpan EU, Edem MJ (2017) Impact of Workplace Environment on Health Workers. Occup Med Health Aff 5: 261. doi: 10.4172/2329-6879.1000261
85. World health organization. http://www.who.nt/foodsafety/areas_work/food-hygiene/en/ retrieved 10th November 2019
86. https://neu.edu.tr/campus-life/restaurants-and-cafeterias/?lang=en
87. AidahNassazi. 2013. Effects of Training on Employee Performance. Pp. 2-56
88. Armstrong, M. 2000. A handbook of personnel Management Practices. Kogan Page Limited London.
89. Debrah, Y. A. & Ofori, G 2006. Human Resource Development of Professionals in an Emerging Economy: the Case of the Tanzanian Construction Industry. International Journal of Human Resource Management 17,3, 440 – 463.
90. Guest, D. E. 1997. Human resource management and industrial relations. Journal of Management Studies 24,5, 503–521.
91. Gordon, B. 1992. Are Canadian firms under investing in training? Canadian Business Economics 1,1, 25–33.
92. K.R. Roberts, B.B. Barrett, A.D. Howells, C.W. Shanklin, V.K. Pilling, and L. A. Brannon, "Food safety training requirement and food handlers' knowledge and behavior," *Food Protection Trends*, vol. 28, pp. 192–200, 2008.
93. V. K. Pilling, L. A. Brannon, C. W. Shanklin, K. R. Roberts, B. B. Barrett, and A. D. Howells, "Food safety training and food- service employees' knowledge and behavior," *Food Protection Trends*, vol. 28, pp. 252–260, 2008.
94. M. P. Mortlock, A. C. Peters, and C. Griffith, "HACCP in the raw," *Environmental Health Journal*, vol. 108, no. 6, pp. 186–189, 2000.
95. Hezekiah Kehinde Adesokan,VictorOluwatoyinAkinseye,and Grace Abiodun Adesokan (2015). Food Safety Training Is Associated with Improved Knowledge and Behaviours among Foodservice Establishments' Workers. International Journal of Food Science. Pp 1-8
96. Nada Ahmad Alqurashi, Anushree Priyadarshini, Amit K. Jaiswal (2019). Evaluating Food Safety Knowledge and Practices among Foodservice Staff in Al Madinah Hospitals, Saudi Arabia. fety 2019, 5, 9; doi:10.3390/safety5010009 www.mdpi.com/journal/safety

97. World Health Organization. WHO Fact Sheet. Available online: http://www.who.int/mediacentre/factsheets/fs399/en/ (accessed on 17 November 2017).
98. World Health Organization. Joint External Evaluation of IHR Core Capacities of the Kingdom of Saudi Arabia: Mission Report; WHO: Geneva, Switzerland, 2017.
99. Haapala, I.; Probart, C. Food safety knowledge, perceptions, and behaviors among middle school students. J. Nutr. Educ. Behav. 2004, 36, 71–76.
100. Amir Elnaga and Amen Imran (2013). The Effect of Training on Employee Performance. European Journal of Business and Management.ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.4, 2013
101. Harrison, R. (2000),Employee Development, Beekman Publishing, Silver Lakes, Pretoria.
102. Swart, J., Mann, C., Brown, S. and Price, A. (2005),Human Resource Development: Strategy and Tactics, Elsevier Butterworth-Heinemann Publications, Oxford.
103. Devanna, M. A., Fombrun, C. &Tichy, N. 1984. A framework for Strategic Human Resource Management. In Strategic Human Resource Management 31 – 51. Ed. Fombrun, C. J., Tichy, N. M. &Devanna, M. A. New York: John Wiley and Sons.
104. McCourt, W. & Derek, E. 2003. Global Human Resource Management: Managing People in Developing and Transitional Countries. Cheltenham, UK: Edward Elgar.
105. Torrington, D., Hall, L. & Taylor, S. 2005. Human Resource Management. 6th Ed. London: Prentice Hall
106. T. Kuchenmuller, B. Abela-Ridder, T. Corrigan, and A. Tritscher, "World Health Organization initiative to estimate the global burden of foodborne diseases," *Scientific and Technical Review, Office of International Epizootics*, vol. 32, no. 2, pp. 459– 467, 2013.
107. R. Smith, "Food hygiene training: the chance to create a coherent policy," *British Food Journal*, vol. 96, no. 7, pp. 41–45, 1994.
108. Amir Elnaga and Amen Imran (2013). The Effect of Training on Employee Performance. European Journal of Business and Management.ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.4, 2013
109. Cole, G.A. 2002. Personnel and human resource management, 5th Ed. Continuum London: York Publishers.

CONSENT OF THE PARTICIPANT

Information and Consent Form Concerning Participation in the Thesis

1. Title of the Thesis

2. Responsible for the Thesis

2.1. Responsible

Name:Nelson Ayodeji Daodu

Student Number:20184078

Phone:+90-548-874-0233

Email:nelsonneareast@gmail.com

2.2. Advisor

Name: Associate Professor Hatice Bebis

Department of Nursing (Public Health)

Near East University

Phone: +90-546-827-1483

Email: haticebebis@yahoo.com

3. Preamble

3.1. Brief description of the Thesis

3.2. Research process

4. Benefits, Risks and/or Inconvenience Associated with the Participation of this Study

5. Confidentiality of Data

6. Voluntary Participation and Right of Withdrawal

QUESTIONNAIRE IN-DEPTH

EVALUATION OF CLEANING AND HEALTH BEHAVIOR OF FOOD SERVICE WORKERS IN A UNIVERSITY DATA COLLECTION FORM

Dear Participant;

The following Questions are designed to determine your health behaviors for the Job you do. Your answers will be kept confidential and will not be disclosed by name. I would like to thank you for your sensitivity and participation in this study.

I agree to participate in the research.

Signature: Public Health Department BD.

1. Name-Surname:
2. Date of Birth:
3. Your gender: a. Male b. Woman
4. Your marital status: a. complicated. b. Married c. Widowed / divorced
5. Education: a. Not literate b. Literate c. Primary d. High school e. Associate f. College / University
6. Your economic situation: a) Bad b) Medium c) Good
7. In your opinion, your health status: a) Bad b) Medium c) Good
8. Duties:

Administrative staff	Material transport element
Nutritionist / Food Engineer	Waiter
Food transport element	Cleaning staff
Chef	
Service staff	Other.....

9. Unit in which you work:

10. Department you worked:

11. How long have you been doing this job? years / …… months ..……...

12. Working time at your current location: years / …… months

13. Where are you examined when you get sick?

14. Have you had a medical examination on your job? a. Yes b. No

15. Is intermittent inspection (porter) performed: a. Yes b. No

16. Have you received vocational training related to your work?

a. Yes b. No

17. If yes, from whom, and how long did it take?

…….

18. What subjects did you receive training on? (You can mark more than one)

a. Cooking, food hygiene,

b. Kitchen table layout, cleaning service (cutlery etc) - maintenance

c. No service, table

d. General cleaning rules (floor cleaning, sink, toilet cleaning, etc.)

e. Use of cleaning / disinfecting agents

f. Cleaning rules and protection from infectious diseases

g. Personal protection (wearing gloves, vaccination, wearing masks, hand washing, etc.)

h. Other (please specify) .....

19. Existing work; How does it affect your likelihood of getting contagious diseases compared to workers working in hotels, government offices?

a. Same b. More c. Less d. I do not know

20. Is it possible to infect you during your work?

a. Yes b. No c. I do not know

21. Is it possible to infect other people during your work?

a. Yes b. No c. I do not know

22. Do you think it is possible to infect one person to another while doing your job?

a. Yes b. No c. I do not know

23. Which of the following personal protectors do you use when working? (Indicate your usage frequency for each material with a single X)

Safety Equipment	Never Use	Sometimes	I Use Always
Work apron / uniform			
Glove			
Bone / hat			
Mask			
Glasses			
Other…….			

24. Do you have your own wardrobe at work? a. Yes b. No

25. Do you keep business clothes and daily clothes in the closet in the same places?

a. Yes b. No

26. How often do you have your apron / uniform washed?

a. Every day b. Every two days c. Once a week d. Twice a week

D. Every 15 days e. Other…….

27. Do you take off your work uniform while you eat?

a. Yes b. No c. Sometimes

28. Can you take off your work uniform / uniform when going to / from the work environment?a. Yes b. No c. Sometimes

29. Are you vaccinated? tick the appropriate one?

a. I have had hepatitis b. I had Tetanus overdose c. I made both of them

d. I didn't make them both

30. Mark your washing status with X.

	Never	Sometimes	Always
Getting started			
When I'm done			
Before dinner			
After dinner			
Before going to the toilet			
Out of the toilet			
When I get something			
After coughing / sneezing			
Often without something special			
On my way to my house			
Other …….			

31. Have you had an accident while doing work (used material, dishwashing, glass cut, knife cut, vomit, bare skin, splashing in the eye)? a. Yes b. No

32. If your answer is Yes; please write

…….....

.....

33. Have you had any illnesses during your work (hepatitis, pneumonia / pneumonia, brucella, tetanus, etc.)?

a. Yes …….. I got sick

b. No

34. Do you have a permanent disability associated with any of your work during your employment? What kind of disability came?

a. Yeah ……. I have a disability

b. No

35. Does your business have a negative impact on your health?

36. Do you have any suggestions to reduce the negative impact of your work on your health?

We thank you.

CURRICULUM VITAE

Nelson Ayodeji Daodu

CONTACT

Lefkosia, Nicosia
+90-548-874-0233
nelsonneareast@gmail.com
Nelson Africa
nelson_africa_group
www.nelsonafrica.com

LANGUAGES

English
Turkish

SOFTWARE SKILLS

Word
Powerpoint

PERSONALITY/ATTRIBUTES

- ✓ Communicative
- ✓ Punctuality
- ✓ Creativity
- ✓ Innovative
- ✓ Active listening
- ✓ Leadership

HOBBIES

Music
Football
Technology
Politics

Profile

A versatile, analytical and hard-working man with a practical hands-on approach, who always perseveres to achieve the best results. Able to collect and analyze information, digest facts/figure and quickly grasp complex technical issues. Excellent negotiation and problem-solving skills, swiftly identifies the root of any problems to develop an effective solution. Proven ability to manage and complete projects to the highest standards with meticulous attention to details and agreed deadlines.

Education

2005-2011
Adieze Brains Secondary School, Nigeria
Senior School Certificate (NECO)
2014-2018
Near East University, Nicosia, North Cyprus (TRNC)
BScN Degree
2018-2020
Near East University, Nicosia, North Cyprus (TRNC)
MSc Public Health (Nursing)

Experience

2014
Intern
Kolan British Hospital, Cyprus
2015 till date
Founder and Manager
Nelson Africa (www.nelsonafrica.com)

Skills

- ✓ Great communication (oral and written) skills
- ✓ Effective autonomy and interpersonal skills
- ✓ Excellent conceptual and analytical skills
- ✓ Quick and eager to learn new technologies
- ✓ Critical thinking skills

Awards and certification

Nursing degree from Near East University
NSA NEU award
NANS award
TRNC Government scholarship beneficiary

References

Available upon request.

PLAGIARISM REPORT

food worker

ORIGINALITY REPORT

6%	4%	4%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Mansour A. Balkhyour, Ijaz Ahmad, Mohammad Rehan. "Assessment of personal protective equipment use and occupational exposures in small industries in Jeddah: Health implications for workers", Saudi Journal of Biological Sciences, 2019 Publication	1%
2	www.tandfonline.com Internet Source	1%
3	Ahmad , Ijaz. "Occupational Health and Safety in Selected Small Industries in Jeddah and Strategies to Improve It = السلامة والصحة المهنية في الصناعات الصغيرة المختارة في جدة والإستراتيجيات المتبعة لتحسينها", King Abdulaziz University : Scientific Publishing Centre, 2018 Publication	<1%
4	academic.oup.com Internet Source	<1%
5	journals.sagepub.com Internet Source	<1%

6	www.slideshare.net Internet Source	<1%
7	Submitted to Postgraduate Schools - Limkokwing University of Creative Technology Student Paper	<1%
8	pdfs.semanticscholar.org Internet Source	<1%
9	www.ijmsbr.com Internet Source	<1%
10	www.omicsonline.org Internet Source	<1%
11	www.theseus.fi Internet Source	<1%
12	Submitted to University of Johannsburg Student Paper	<1%
13	Submitted to Segi University College Student Paper	<1%
14	www.cmaj.ca Internet Source	<1%
15	Submitted to ALC College Student Paper	<1%
16	Submitted to Chapman University Student Paper	<1%
	Submitted to Massachusetts College of	

17	Pharmacy & Allied Health Sciences Student Paper	<1%
18	ydu.edu.tr Internet Source	<1%
19	www.mdpi.com Internet Source	<1%
20	C. Catalina-Romero, J.C. Sainz, J.I. Pastrana-Jiménez, N. García-Diéguez et al. "The impact of poor psychosocial work environment on non-work-related sickness absence", Social Science & Medicine, 2015 Publication	<1%
21	www.foodprotect.org Internet Source	<1%
22	Submitted to Daytona Beach Community College Student Paper	<1%
23	www.ijtsrd.com Internet Source	<1%
24	Submitted to University of Southampton Student Paper	<1%
25	academicjournals.org Internet Source	<1%
26	Submitted to Skyline University College Student Paper	<1%

27	Submitted to Universiti Teknologi MARA Student Paper	<1%
28	Tonozzi, Theresa R., Suzanne M. Marsh, Audrey A. Reichard, and Ruchi Bhandari. "Reported work-related injuries and illnesses among Hispanic workers: Results from an emergency department surveillance system follow-back survey : Reported Work-Related Injuries and Illnesses Among Hispanic Workers", American Journal of Industrial Medicine, 2016. Publication	<1%
29	"HACCP and ISO 22000", Wiley, 2009 Publication	<1%
30	Submitted to Nanyang Technological University, Singapore Student Paper	<1%
31	Submitted to International Health Sciences University Student Paper	<1%
32	Submitted to University of Mauritius Student Paper	<1%
33	ir.cut.ac.za Internet Source	<1%
34	Submitted to Colorado State University, Global	<1%

Campus
Student Paper

35 Submitted to Higher Education Commission Pakistan <1%
Student Paper

Exclude quotes	On	Exclude matches	< 5 words
Exclude bibliography	On		