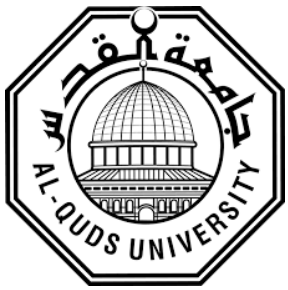

Deanship of Graduate Studies

Al-Quds University

Assessment of the Palestinian Red Crescent Society Medical Emergency Workers' Health Risks, Satisfaction and Psychological Situation in Palestine

Ismael Osama Abu Zayyad

MPH Thesis

Jerusalem - Palestine

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Assessment of the Palestinian Red Crescent Society Medical Emergency Workers' Health Risks, Satisfaction and Psychological Situation in Palestine

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Thesis Approval

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Jerusalem -Palestine

2021/ 1442

Declaration

I certify that this thesis submitted to the degree of master is the result of my own research, where otherwise acknowledged, and that this thesis or any of its parts has not been submitted for higher degree to any other university or institution.

Signature: ***Ismael Osama Abu Zayyad***

Date: 9/6/2021

Dedication

To the decision-makers, make the right move.

الى صُناع ألقرار،
فلتتخذوا الخطوات السليمة.

Ismael osama Abu Zayyad

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Assessment of the Palestinian Red Crescent Society Medical Emergency Workers' Health Risks, Satisfaction and Psychological Situation in Palestine

Abstract

Introduction: Emergency medical services (EMS) systems of care and health provision, respond to major events of crises and individual health emergencies, but they face many challenges not recognized by many organizations. EMS risk factors are difficult to define and characterize.

Objective: To assess the health status of workers in the Palestinian Red Crescent Society-Emergency Medical Services in Palestine.

Methods: A Cross-sectional study conducted inPalestinian Red Crescent Society in three areas (Jerusalem, West bank, Gaza Strip) in the year 2019. The study include all EMS workers predominantly males, with only 11.9% being female.The questionnaire includes demographic characteristics, personal information, functional information, job difficulties, job satisfaction and leave decision, injuries and illness andorganization systems.Pilot questionnaires were excluded and not considered in the final research results (they form 7.96 % of the population).Descriptive analyses used Chi square, mean, and frequency, Fisher test and a logistic regressions were conducted to analyze the factors that affect the decision of leaving EMS.

Result: The main source of work injury that occupies 66.8% is the structures and surfaces on the scene, while the person's source of illness is significant. A traumatic injuries to muscles cover a high number of occupational injuries among EMS workers. Surface wounds and bruises are the significant nature of injury, followed by chemical burns and corrosion injuries. Where the percentage of work injury was 61.8% of employees, and 42.5% of employees have an illness at work. The highest percent of participants have a respiratory system ailment (38%). For the event of injury Jerusalem showed a high level from moving and transferring patients at 85.0%, and the military (Israeli army) situation with 65.0% of events that injuries occur in. For illness, the highest percent is from the same event of moving and transferring

patients, and the military (Israeli army) situation. Incredibly about 57.1% of the employees with an injury never get leave due to injury, also 36.9% who get illnesses never get sick leave. There are 13.1% suffering from a chronic disease, however, 94.3% of employees have an average physical time off weekly of less than 150 minutes. 41.8% of employees have over 15 years of EMS experience, unfortunately there is just 1% of workers who have the paramedic certification.

Conclusion: The study identified the health status and main health problem of the EMS workers in PRCS, their event and source of exposure that effect the worker by organization or the scene are also identified .The difference between the areas of work and between the workers and their effect on their health was taken into consideration especially in Palestine that are under occupation. Further research is needed to understand, address and improve the health of EMS workers.

تقييم المخاطر الصحية والوضع النفسي ورضى العاملين في الخدمات الطبية للاسعاف والطوارئ في جمعية الهلال الأحمر الفلسطيني في فلسطين

الملخص

مقدمة: نظام الاسعاف والطوارئ هو نظام يقدم العناية والخدمة الصحية الذي يستجيب للكوارث الكبيرة وللحالات الطوارئ الفردية. لكن يتعرض النظام الى الكثير من العقبات والتحديات والتي لا تعرفها الكثير منا المؤسسات المشغلة. المخاطر التي يتعرض لها العامل في هذا النظام يوجد صعوبة في تحديها وتصنيفها.

الأهداف : تهدف هذه الدراسة الى تقييم الوضع الصحي لدى العاملين في مجال خدمات الاسعاف والطوارئ في جمعية الهلال الاحمر الفلسطيني على مستوى فلسطين.

الأدوات :دراسة مقطعية تمركزت في جمعية الهلال الاحمر الفلسطيني ضمن ثلاث مناطق رئيسية (غزة و الضفة الغربية والقدس) في عام 2019 كمقطع زمني.شملت الدراسة جميع العاملين في المجال ، اغلبتهم ذكور وبنسبة 11.9% من العينة اناث. تم جمع المعلومات من خلال استبيان يشمل كل من العوامل الديموغرافية، معلومات شخصيه معلومات وظيفيةصعوبات الرضى الوظيفي وقرار البقاء او مغادرة العمل وأيضا شمل دراسة طبيعة ومصدر الاصابة والوقت التي حدثت فيه الإصابةوأيضا طبيعة المرض ومصدرة ووقت حدوثه وتتطرق ايضا للسؤال عن طبيعة ونظام المؤسسة. وتم اخذ عينة اولية للتأكد من فعالية الاستبيان بنسبة 7.96% وتم ازالتها من النتائج النهائية.

البرامج ألمستخدمة : لإيضاح البيانات تم العمل بالتحليلات التالية وتوضيحها كالتكرارات والنسبة المئوية ، اختبار Chi-square ، اختبار Fisher ، تحليل الانحدار اللوجستي لتحليل العوامل التي تؤثر على قرارترك العمل في منظومة الاسعاف والطوارئ.

ألنتائج:بينت الدراسة بتميز الاسطح والمحيط لموقع الحدث واحتلله 66.8% من مصدر الاصابات. وتميز بان يكون الانسان مصدر مميز للتعرض لمرض اثناء العمل.وان هناكاعداد من الاصابات في العضلات تأتي بالمركز الاول من حيث عدد الاصابة ضمن المسعفين ومقدمي الخدمة. تشير الدراسة على ان اكثر الاصابات الناتجة هي اصابات سطحية وكدمات وبشكل بليغ. تظهر الدراسة بان عدد الاصابات بين الموظفين بما نسبته 61.8 % من الموظفين العاملين في مجال خدمات الاسعاف والطوارئ و تشير ايضا الى ما نسبته 42.5 % من تعرض الموظفين الى المرض في ألعمل ، حيث تأتي اغلب الامراض في الجهاز التنفسي بنسبة 38%.وفي القدس اظهرت الدراسة بان اعلى اوقات الاصابة في وقت نقل وتحريك المريض بنسبة 85.0% ويتبعها التعرض للإصابة اثناء المواقف العسكرية ومن الجيش الاسرائيلي بنسبة 65.0 %. ويكون وقت حدوث المرض بأعلى نسبة بنفس الاوقات التي تحدث فيها الاصابة، أي اثناء نقل المريض وتحريكه وأثناء المواقف العسكرية.والمميز في ان 57.1% من الموظفين الذين يتعرضونللإصابة بانه ابدا لم يأخذ اجازة مرضية او عطله لتعرضه للإصابة وان ما نسبته 36.9 % لم يأخذ اجازة ابدا بسبب المرض.وان منهم نسبة 13.1 % يعانون من مشاكل وأمراض صحية مزمنة ، وعلى الرغم من هذا فان ما نسبته 94.3 % لا يزيد وقت الرياضه لديهم عن 150 دقيقة في الاسبوع.وان بما نسبته 41.8 % من الموظفين ذو خبرة لا تقل عن 15 سنة ، ومع وجود فقط ما نسبته 1 % من عينة العاملين يحمل شهادة ال "PARAMEDIC"

الخلاصة :بينتالدراسةفي تحديد المشاكل الصحية الرئيسية للعمال وعوامل المرتبطة بمكان العمل أو مكان الحادث وتم تحديد

وقت الحدث والمصدر أيضًا ليكون معروفًا وأهمية هذه المعرفة وخاصة في دولة فلسطين كدولة تحت الاحتلال ، مع مراعاة الاختلاف مكان العمل بين العمال وتأثيره في الصحة. هناك حاجة إلى مزيد من البحث لفهم ومعالجة وتحسين صحة العاملين في نظام الاسعاف والطوارئ.

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Abbreviations

EMS - Emergency medical services

EMT - Emergency medical technician

PRCS - Palestine Red Crescent Society

USA - United States of America

PCBS - Palestinian Central Bureau of Statistics

NIOSH - National Institute for Occupational Safety and Health

UK – United Kingdom

BLS - Bureau of Labor Statistics

WHO - World Health Organization

CRD - Centre for Reviews and Dissemination

LBP - Low-back pain

MSD - Musculoskeletal disorders

BMI - body mass index

SPSS - Statistical Package for the Social Sciences

CBR - Crude Birth Rate

Chapter one

Introduction

1- Background

Emergency medical services (EMS) is defined as the system that organizes all aspects of care, to improve outcomes of injuries and other time-sensitive illnesses, care provided to patients in the pre-hospital or out-of-hospital environment, and it is a necessary and critical component of the health systems (Mehmood et al., 2018).

EMS which is provided outside the hospital, it referred as Pre-hospital care. A EMS usually established and maintained on a local level, includes phases of dispatch, emergency care, rescue, and transportation to a hospital (Farlex, 2012). That saving lives by assessment, stabilization, and care of medical emergency or trauma victim, also include a proper transport of skill to the appropriate emergency room or hospital.

EMS professionals perform physically challenge for apply the care needed, that also demanding psychological part. They often work long shift exceed to 12 or 24 hours, carrying have equipment, moving patient and lifting and lowering the stretchers (Weaver et al., 2015). Also EMS workers face intense emotional demands, and high mental demands that put them in high-risk to decide their movement of care due uncontrolled environment, and exposure to traumatic events(Cydulka et al., 1994; Regehr et al., 2002).

This care provided under stable or unstable scene or event, due to that different work environment for each case. Needed a highly trained person in emergency technique, for that special person known as emergency medical technicians (EMT) or paramedic(Mower-Wade et al., 2005).

The system of EMS developed to be inclusive of many components: public safety agencies, manpower, training, communication, critical care units, transportation, access to care, patient

transfer, facilities, consumer participation, coordination, record keeping, public information and education, evaluation and review and emergency disaster management and planning (Partmers, 2009).

Throughout time the system of EMS developed to be as it right now, from special vehicle to transport the patient in 1794 that designed by Napoleon Bonaparte's chiefs surgeon "Dominique Jean Larrey" (Skandalakis et al., 2006) to the modern vehicles with a special technicians. Also the developed of the certification and the degree of that worker must havefrom the minor level to the high level of Emergency medical technician – Paramedic, that occur in Pittsburgh at the early of 1970s(Dennis Edgerly, 2013).

Every day the EMS providesimportant benefits to the public. Responding for the immediate medical need for individual or disaster that could affect major public. And it supports the health care chain minimizing the risk of complications of illness or traumatic injuries(Van Milligen et al., 2014).

Each country has its own classification, according to the care they provide. There aretwo main categorizations in the international level for the emergency medical service system, characterized into France-German model based in "stay and stabilize" philosophy, or the Anglo-American model that based in "scoop and run" philosophy (Al-Shaqsi, 2010).

To any agency or organization work in emergency service, four scopes of certification need to be estimated, to allow employers or volunteers to work in a different type of ambulance vehicles inside the unit of (EMS); and to provide care in sufficient wayand with perfect skills and technique. Sort as follows:(Page et al., 2013)

- First-level called "first responder" with 81 hours of study, care of the life-threatening situation, stabilization, helping until the EMS unit arrives, also helping the unit with transport the patients.

- The second one is “Emergency medical technicians - Basic”a low diploma degree, the lowest degree must the EMS unit component. Care about the patient, medication permitted included oxygen.

- Third one “Emergency medical technicians- Intermediate” as a diploma degree, permitted to deliver medication and a few techniques.

- The “Paramedic” and this is the last emergency degree could be given as pre-hospital care, permitted many medications and a 3 major life-saving technique, and also can declare death.

Emergency Medical Services in the Middle East followed the Anglo-American model that based in “scoop and run” philosophy, which depend on transfer the patient to the near facility of health care, and don’t waste any time to supply care in the scene. In Palestine the EMS was established concurrently with the creation of Palestine Red Crescent Society (PRCS) in the diaspora of Palestinian area during the 1960s. PRCS accompanied Palestinians in times of hardships and aggressions such as the war in Lebanon in 1982 and through recurrent aggressions during Al Aqsa Intifada and the latest war on Gaza, and healthcare system faces numerous difficulties in its efforts to develop and improve patient care(PRCS, 2019).

2- Problem Statement and Significant of the study

Regardless to global safety policy guidelines, rules and recommendations in prevent occupational exposure to the hazards and risk that harm EMS workers, they are at high risk for occupational exposure as physical, chemical, social, environmental even biological risk factors simply like infection diseases, and with the many research that recognized the effect

and the exposure and the high risk for this occupational exposure to health status workers (World Health Organization, 2018).

Even with recorded risk of 300% for the EMS workers higher than any occupational for the injuries and illness (Reichard, Marsh, Tonozzi, et al., 2017). There are no studies in Palestine to recognize the danger or to assess the health of the workers in this field, so we could be enhancing the organization environment and limitation the risk of exposure that are unknown until yet, that may harm the workers.

In this study, our main goal wasto assess the Health of the EMS workers and the relationship between their health and their exposure to the hazards and harm, so we could recommend potential policies or strategies on how to prevent and limit risks at EMS workers.

This is the first study from it kind of occupational health that dealing with emergency medical service workers, and it will be the baseline for improving the worker health status.

3- Study Justification

Palestine is a country in the Middle East under an Israeli occupation. The situation for the workers in the emergency medical services is unique, for there unstable situation and suddenly occur of event(B'Tselem, 2014). Such as sudden gunshots or fire to ambulance that happened in 25 July 2014 and a Paramedic was killed be a tank bombing the ambulance in Beit Hanoun from the Israeli army, or a gas pump to a crowd of people in the streets.

Even a sudden close of an fixed army barrier or sudden barrier that makes the time longer for the case according to its danger situation, or to exposed the ambulance team for disallow or delay them to do their job and in which this may increasethe paramedic worrying and stress.For example, a patient with a heart problem in a village named of Barta'a a- Sharqiya was killed because of the delay of the ambulance at checkpoint in 2007in which this situation excerebrated the stress of the paramedics who tried to rescue him at that time(B'Tselem,

2007). Furthermore,some of them are at risk of getting injured, harm or may make them prone of becoming physically illfrom the scene. Reports also showed that emotional pressure is increased at the paramedics when they deal with the angry families or public, especially with they have no companying from police personnel in area(B'Tselem, 2019).

Globally the EMS workers have a local authority or police to help with controlling the area of scene.However, un-controllable circumstances as a result made work of EMS workers in Palestine more dangerous and unbearable as they faced threatening at their lives when trying to save people at checkpoints or when responding to cases during clashes(Dan Greenhaus, BS, 2020).

Many exposure are known under normal life time of work, such as 15 to 45% in French healthcare workers complain Chronic low back pain(Allegri et al., 2016) and other studies present approximately the same result of 25% personal in occupational burnout from workers in EMS teams in Iran and USA(Dropkin et al., 2015; Khatiban et al., 2015).

Also, studies identified that EMS injuries higher 3 times than the average 107 for all occupational groups in the United States of America (USA) per 10000 workers(Maguire & O'Neill, 2017). Regardless of the National Institute for Occupational Safety and Health(NIOSH), that reported of 21,200 injuries and illnesses among EMS workers treated in the U.S in 2017. Also reported that chance to get injured linked of years of experience and the workers less than 10 years of experience had more chance of it. Also the most injuries occurred is the Sprains/Strains within many ways of getting an injury, like body motion, exposures to harmful substances, slips, trips, falls, and Violence/assaults(Reichard, Marsh, Olsavsky, et al., 2017).

Overall this information confined in some few studies as we will present in the literature review. There is a huge gap we need to assess for health workers in this field, with

approximate of 377 people cover over 4,9 million, the number of population in Palestine by the report of Palestinian central bureau of statistics (PCBS), that means of 13 thousand for every one EMS workers(PCBS, 2017), while to compares that with 240.800 workers of EMS in the USA by the 330 million people in it, that shows of 1.245 person to each one of worker of EMS (Emergency Medical Services Workers | NIOSH | CDC, 2017).

For many risk and accident occur At EMS workers,so this study will fill the gap of unknown information about their health status and will become abaseline study for the Palestinian Red Crescent Society decision-makerson how to meet the health needs of the paramedics.

4- Main aim and study objectives

4-1 Main aim of the study

The overall aim of this study wasto assess the health status among the EMS workers and to determine the factors associated with EMS health.

4-2 Specific Objectives

1. To identify health status among EMS workers.
2. To identify occupational factors associated with the health status of EMS workers.
3. To determinate the association of the demographic factors with EMS health workers, in Palestine.
4. To assess the psychological effect from the occupational factors of EMS field on the PRCS workers.
5. To determine the life-style factors associated with occupation factors on the EMS health status workers.
6. To assess the satisfaction for the employees and the relation of it with the decision of leaving.

4.3 Research questions

1- Is there a relation between incidence of injuries and incidence of illness at work and work place?

2- Is there a relation between the psychological suffering due to work and work place?

3- Is there a relation between the physical pain and work place?

4- Is there a relation between satisfaction of profession and work place?

5- Is there a relation between decision of leaving work and work place, due injury or illness at work or profession satisfaction or

6- Is there a relation between the source of work injury or illness and work place?

7- Is there a relation between the event of injuries or illness exposure and work place?

5- Health care in Palestine

Palestine healthcare as the international health care start from the first cycle of health chain, as the emergency medical service.Unfortunately the system has been developing slowly while facing the instability of the Palestinian situation, so after the Palestinian Authority present in 1994, the PRCS got the possibility to help with the international low like “Geneva third” to work with a little bet free as the major player on the Emergency service and specially in EMS system, so chain of health had been supported by the international law to act in field. And that was officially with a presidential decree in 1993 for PRCS to handle this part in Palestine (Presidential Decree, 1993).

PRCS as a part of international movement, it provides other services like social support, primary care, hospitals, including youth and volunteers department, and disaster management department. The Palestinian Red Crescent Society provides service in Palestine and in the countries that hostess the Palestinian refugee.

The present of the PRCS, was distributed in the district of Palestine, such as its oldest branch in Jerusalem that open in 1951, and Hebron branch in 1965 were service of primary care. But after the gathering under one umbrella in main branch in Ramallah. The service starts to improve and many department open to serve the community including the emergency service, that culminated with the presidential decree to be the society that offer that service officially.

Within 1996, the ambulance service started on in Palestine by PRCS with14 main branches, including 28 sub-branch with several 377 EMS employed and 200 volunteer. With that the EMS services are offered 24 hours a day, 7 days in the week through the (101) hot-line number call, under the central dispatch station in Ramallah for West bank that newly foundation as anew modernization system in the end of 2018. Unfortunately Gaza still with the localized separated centers in each distributed in Gaza Strip with the same number as a hot line call and also in Jerusalem with the number of (*9110) as a privatefree number of hot line call, because of the Israeli policy as an area under the state of Israel policy control(Emergency Medical Services | Palestine Red Crescent Society, 2019).

Also in Palestine, the PRCS has the only two institutes for teaching the EMS levels, except the Paramedic level, inWest Bank and Gaza strip known as the Palestinian EMS Institute in their Headquarters in Ramallah and Gaza city.

In the progress of the Palestine authority it format three EMS sectors, the first is for the police and military force of the authority, and the second are privatefor the people founded by privatepeople, and EMS department in Ministry Of Health. Their main service is to transport patient from hospital to other hospital or to advance specialist place. This other EMS service is not established to help within the urgent case, like PRCS EMS system.

6- Context of Study

6-1 Demographic of Palestine

Palestine now known as a state of Palestine this state including 3 areas named by (West Bank, Gaza Strip, East Jerusalem) as the United Nation declare in 2019.Palestine as a country has been under occupation since 1948, with many wars and problems

Gaza Strip is at the west southern edge of Palestine along the Mediterranean Sea just northeast to the Sinai Peninsula. It is formed of five governorates, North Gaza, Gaza, Dair Al-Balah, Khan-Yunis and Rafah, from north to south respectively. Although forms a total land area of 365 square kilometers, it is being one of the most densely populated areas in the globe, according to the PCBS.

West Bank is a landlocked territory, bordered by Jordan to the east and by Israel state to the south, west and north. including East Jerusalem, has a land area of 5,640 km^2(Middle East :: West Bank — The World Factbook - Central Intelligence Agency, n.d.).

East Jerusalem are an area not recognized that it is the area inside the wall that's under Israelis control or it is the same area that outside the wall that included with the West Bank territory.

The population of Palestine are 4,854,013 of whom 2,46 million males compared to 2,38 million females. Distributed as 51.1% of the total population in West Bank, while a population of 39.8% in Gaza Strip Approximately (1.9 million), and 9.1% in Jerusalem as a

Palestinian population distribution. While the Palestinian society consider young society, 38% of the population are under the 14 years old(PCBS, 2017).

In the population that present in Palestine, refugees were 42.2% of the major population, disrupted as 27.4% of West bank population and 66.2% of the total population in Gaza Strip.

As an developed country with people in low socioeconomic status the average Crude Birth Rate (CBR) was 28.2 birth per 1000 in West Bank, 29.8 births per 1000 population were recorded in Gaza Strip. While the crude death rate for Palestine was 3.45 deaths per 1000 population. Average household size was 5.1 persons(PCBS, 2017).

Table 1 : distribution of population in governorates(PCBS, 2017)

Jerusalem	**435,753**	**West Bank**	
Gaza		Bethlehem	217,400
North Gaza	368,978	Jericho	50,002
Gaza	652,597	Hebron	711,223
Dier al Balah	273,200	Nablus	388,321
Khan Yunis	370,638	Jenin	314,866
Rafah	233,878	Tulkarm	186,760
		Salfet	75,444
		Qalqilyah	112,400
		TOUBAS	60,927
		Ramallah – Al-Bireh	328,861

6-2 Conceptual and operational definitions

6-2-1 Work Environment

The environment of workplace are where the worker performs his work, while an effective workplace is an environment where results can be done as predictable by the system and physical environment can be directly affect the mission that being performed(Ajala, 2012).

6-2-2 Health status

Health status is the state of health of a person or population assessed about morbidity, impairments, anthropological measurements, mortality, and indicators of functional status and quality of life (WHO, 2009).

6-2-3 Occupational health and safety

Occupational health and safety, which include the laws, programs, and standards that are purpose is to make the workplace better to work on, along with co-workers, customers, family members, other stakeholders. That means of related health, safety, and welfare issues in the workplace. Concerned with addressing many hazards such as chemicals, physical, biological agents, psychological issues, ergonomic issues, and accidents(Occupational Health and Safety (OHS), 2018).

6-2-4 Occupational injuries

An occupational injury takes place in a person's employment activities. It may be any injury that results from the workplace, including illness or disease(Roudsari & Ghodsi, 2005).

The definitions in this study will focus on“the harm that will be unexpected by a subject or human or animal, with a force that may lead affect the working efficiency and health that can or can’t be prevent”

6-2-5 Occupational diseases

The protocol of the Occupational Safety and Health Convention in 1981, defines occupational disease as any disease contracted because of an exposure to risk factors arising from work activity (Seoke, 2013).

The definitions in this study will focus on"the harm that will be unexpected or expected by a subject or human or animal, with no force that may lead affect the worker's efficiency and health that can or can't prevent"

6-2-6 Psychological factors

Psychosocial factors are influences that affect a person psychologically or socially. There are multidimensional constructs encompassing several domains such as mood status (anxiety, depression, distress, and positive affect), cognitive behavioral responses (satisfaction, self-efficacy, self-esteem, and locus of control), and social factors (socioeconomic status, education, employment, religion, ethnicity, family, physical attributes, locality, relationships with others, changes in personal roles, and status).

The definitions in this study will focus onmood status.(anxiety or frustration, discomfort and fear, and sadness)

6-2-7 lifestyle (Daily life activities)

The habits, attitudes, tastes, moral standards, economic level, etc., that together constitute the mode of living of an individual or group(Lifestyle | Definition of Lifestyle at Dictionary.Com, 2020).

In this study the life style concentrate on sport time, sleep time, sleep hours and physical activities also some other daily activities such as wearing medical glasses, smoking and breakfast intake.

7- Scope and Limitation

There is a lack in the literature that support such a study, and to be a path for a certain study in Arab word and especially in Palestine.

This study covered the area of West Bank, Gaza Strip, and East Jerusalem. There was been circumstances to not reached all areas by the researcher especially Gaza strip to distributed the questionnaire personally. The shift system of work was a challenge to collect the questionnaires and follow all the workers by their schedule of monthly work.

Not having an incident reported system in the EMS department in the society. Also, the study will not discuss the other ambulance service that not provide the Emergency call, like the Private sector, the Health Ministry ambulance, and the Palestinian authority ambulance.

8- Conceptual framework:

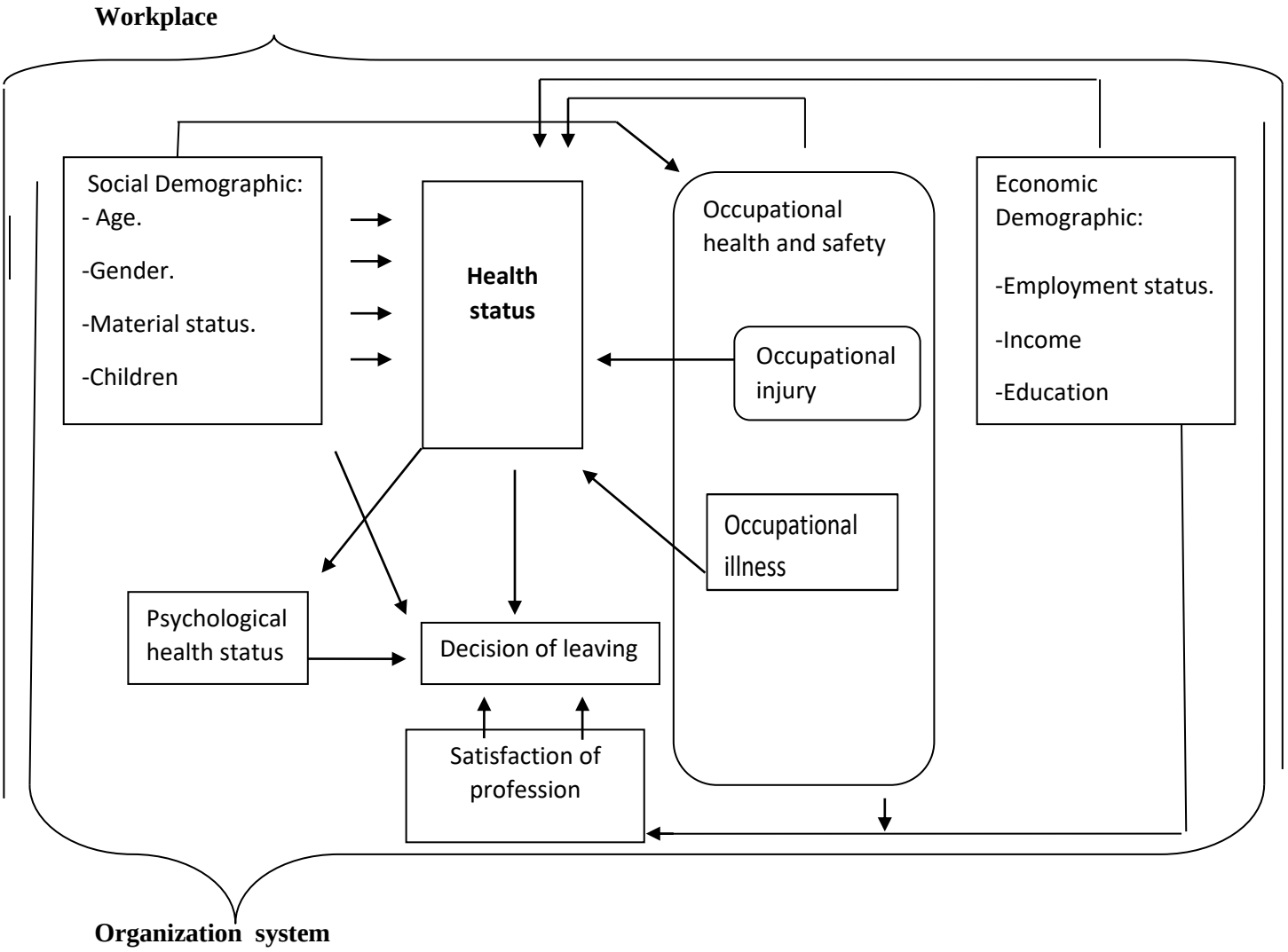
"Risk factors among Emergency Medical Service (EMS) workers are difficult to characterize and inconsistencies remain about their main health problems" (Dropkin et al., 2015). Although they don't have a unique environment, the environment is exceptional under different circumstances which could be unpredictable, spontaneous, and dangerous.

So in this study, the researcher tries to classify2 categories for getting the goals of the study. 1- Health status as the researcher defined it, as the main focus as a dependent variable for the other independent variables that may affect it.

2- The researcher defined other variablesof satisfaction of profession, physical pain, difficulties that faced EMS, natural of injuries and illness, source of injuries and illness and

event of exposure of injuries and illness, psychological suffering, decision of leaving as a dependent variable for the otherindependent variable that may affect it.

Over this categories the health status and others that will be as the dependent factor for all of other factors this study will determinant the association of (Area of work, injuries, illness) that will be identified as the factors an independent variables.



Chapter Two

Literature Review

Introduction

This chapter is divided to manifest research within three parts that literature present. It begins with the health determinantsof work in general followed with subtitle of health determines of EMS workers in specific, followed by behavior factors, socioeconomic, hosing, work environment, include the risk factors from stable and unstable situation, and violence. The third part present the satisfaction, dissection of leave, and benefit of intervention or implementation or increase knowledge to decrease the risk and injures including the support in the EMS. Finally, some challenge of the EMS workers faced.

Many studies highlight a lot of subjects more related to mental status, knowledge of risk factors, and some even focus on blood exposure, chemical exposure. Also specific injuries like spinal injuries, pulmonary function, cardiovascular disease, but from reviewing research the main topic of study that integrated this field was anxiety and stress.

In Arab World and in Palestine specifically there is lack of studies related to health assessment conditions among EMS workers which is a major challenge in this study.

2- Healthdeterminantsof workers

2-1 Individual

2-1-1 Age and health

A multinational cohort study based on 104 observations in 11 country was donein European community(UK, Portugal, Spain, Belgium, the Netherlands, Denmark, France, Germany, Greece, Ireland and Italy) showeda moderate decline in health for workers until the age of 70 and then steep decline until death that observed by a self-assessed health for individuals(van Kippersluis et al., 2009).

Another study referred that decline may be as a result of generational change in the system of care and health provide that was present in descriptive analysis of secondary routinely collected dataon five surveys with workforce exists among different health occupational groups (Rosie & Neall, 2018).

It is impotent to recognize the individuals' physical ability and mental status and the chance to be reduced with age from a workforce perspective (Rosie & Neall, 2018). A meta-analysis study showed a modest decline in the clinical of physical health despite of that, it shows also no decline in self-reported mental or physical health among the old age workers which defined as 40 years old or over compared to the other older group of 65 or over(Ng & Feldman, 2013).

A study among 213 Paramedic (advanced EMT) showedthat the increasing of age among the EMS workers has been significantly correlated with the burnout(R= 0.23) (Grigsby & Mc Knew, 1988). Descriptive study that describing health indicators among EMS and health condition by analysis the data from 2007 questionnaire found that every two years in national recertification packets in the United States of America present that every one year of being more older there will be increase in odds of getting pre-existing medical condition with about 5% among the EMS professionals (Studnek et al., 2010). Despite of that a retrospective study of 100 full time worker in a two of major urban EMS agencies present a lower significant rate of injuries per the 100 workers among the 45-54 years old group compared to those in the

25-34 years old group. This mostly depends on the increase of experience of EMS by years (Maguire Leidos et al., 2005)**.**

A random sample of cross-sectional study conducted in Israel for 50% of graduated paramedic courses extracted that half of the paramedic are currently employed will reachan agemore than 40 years old which will be hard to perform their work(Nirel et al., 2008).

2-1-2 Sex and health

An observational studies among workers used a systematic reviews and meta-analysis methodology recognized that gender can play a role of expectancy of life time, such like the women working in the UK could have the average 20.9 years in addition to the age of 65, while the man could get 18.4 years as expectancy of life time (Jones et al., 2015). A descriptive analysis of second data collection in UK data archive showedthat biological, social and psychological factors difference between men and women and may differ the definition of health between genders. So to determine the health and health behavior of both sexes is so important to examine apart of each other to recognize the difference separately in their health form (Rosie & Neall, 2018).

A study conducted in Finland data of Helsinki survey baseline in 2000 using Poisson regression present that different women showed to get more sickness absences than men. (Laaksonen et al., 2008). Anotherstudy analyzed data from the Bureau of Labor Statistics (BLS) in the USA for the period 2003-2007 showed that females hadfewer non-fatal injuries compared to males that need to be treated in emergency department, that study was conductedamong EMS personal to look for fatal and non- fatal injuries mostly injuries related to a motor vehicles incidents(Reichard et al., 2011).

2-1-3 Marital status and health

Descriptive analysis of secondary routinely collected dataon five surveys with workforce exists among different health occupational groups in 2018presented a poor health and higher mortality among unmarried workers compared to married groups, even with the adjustment of gender and age. Some confounder may potential be a reason of that overestimation of health of married individuals, quality of marital status, perceived stress and health behaviors(Rosie & Neall, 2018).

Another meta-analysis study found slight effect of marital quality and better health and lower risk of mortality by analysis 126 articles onthe past 50 yearscomprising over 72.000 personthat described the association between marital relationship quality and physical health(Robles et al., 2014).

Analytical-prospective study was conducted in Iran, in two locations with a sample of 260 participants shows an emotional exhaustion and depersonalization on singles than married ones, in smokers than non- smokers, and younger personnel than older (Khatiban et al., 2015).

2-2 Life style factors

Several behavioral including smoking, poor dietary habits and physical inactivity that increase the chance of disease or poor self-assessed health**.**

A longitudinal study of 7,704 civil service workers reported that males who smoked cigarettes, work-related factors contributing to health status (OR = 3.23) were more likely to leave employment over a 22-year period (1991 to 2013) (Hagger-Johnson et al., 2017). Also the female more likely to leave employment (OR = 1.31) with the poor diet intake than man.

EMS are under physically or emotional effect from other people and even from elements who act as stressors, so they have to use a strategy to cope themselves with stressors around them. The physical activity was a perfect strategy to coping with stressors in this job (Erasmus, 2014).

2-3 Work-related factors contributing to health status

2-3-1 Work factors

Several studies showedan evidence about many factors that can impact people's health including shift work, long time, verbal abuse and physical violence from public, job demands (physical and emotional) and availabilityof all equipment needs and organization changes(Raphael et al., 2019).

Work shift foundto be a great risk of cardiovascular disease (RR=1.65), depression and gastrointestinal disturbances as found on a cohort study of 2562 employed medical records from 1972 to 2003 that shows the cardiovascular disease (Ellingsen et al., 2007; Harrington, 2001). A literature review of 118 studies and the results were classified using thematic analysis (Matheson et al., 2014).

However these evidence do not ensure the association because of different factors between studies such as direction and speed of shift rotation, availability and length of rest breaks, and pattern and shift length that was shown for assessing shift work and sleep, and sleepiness(Sallinen & Kecklund, 2010).

Task load is defined as the perceived difficulty in accomplishing a task or subjective mental workload. The amount of work expected from the worker to do in specific period of time and this definition is clear to understand and to be agreed by the researcher so it is considered one of the major factors of work that may influence the health worker and the efficiency of the care provided(Butterworth-Heinemann, 2015)**.**

A systematic review of the literature that deliver a different relation with work related factors and emergency medical service, some studies present that worker that usually work in the same area may have a lower perceived work load compared to an individual navigation to emergency scenes that requiring a breadth of geographic knowledge and organization utilized a system status management. This system of EMS and shift work can increase the task load of EMS job(Studnek et al., 2018).

Fatigue in the (EMS) workplace may be related to high patient care loads, demanding work schedules, and associated with stress and somatic complaints. For example, a meta-analysis of 79 longitudinal and cross-sectional studies showed that workload has been linked to a number of strains, including anxiety, physiological reactions such as fatigue, backache, headache, and gastrointestinal problems (Nixona et al., 2011).

Findings in a systematic review of multiple databases that reviewing unpublished and published literature showedthat the effect of task load interventions on fatigue in EMS personnel and other shift workers were categorized as favorable look for lower levels of work load as a way to relieve the fatigue in work, that three studies out offive reviewed studies showed that this way of relieve fatigue are favorable to workers(Studnek et al., 2018).

An observational cohort study EMS agency in North Carolina refer that the workload of EMS would be physicalactive in pre-hospital scene are measured by the number of call which the EMT or paramedic respond to(Amy Ferketich et al., 2018). Even with the long time pressure of work is associate with increasing the burnout, a meta-analysis study examined how resource and demand, behavioral and attitudes of worker correlatedwithjob burnoutand its3 dimensions(personal burnout, work-related burnout and client-related burnout)(Alarcon, 2011).

Globally, workplace violence toward health care providers is an area of concern. The impact of workplace violence on health care providers is significant.Itaffects many professions, and the rates of violence in health sector seem to be increasing in particular (Cooper & Swanson, 2017).

The report of violence at work by International Labor Office in Geneva 2006presented that health care presented appeared to be at a greater risk of violence, especially from drunk patients or under drugs influence patients. Also , the exposed to verbal aggression by patients or their families(Martino, 2006). An example of many attacked to emergency care units in the same case reported in AJYAL network news (ARN) March 2019 in Palestine, such as the injuries of two EMT workers while care of patient in a family quarrel (arn.ps, 2019).

For the importance of health care service, the World Health Organization reported in 2017 stressed that we must care for providing a safe work environment to healthcare providers in order to decrease hazards that they may face while doing their work (WHO, 2017). And the National Institute for Occupational Safety and Health in the U.S.A reported that there are 2000 injuries from a violence and assaults in 2017 in the United States(NIOSH, 2017b).

A study of workplace violence among emergency medical services workers in Riyadh, Saudi Arabia in 2017 was conducted. Across-sectional design that employed a self-administered confidential questionnaire, which was distributed to all emergency medical personnel.A well-structured and validated questionnaire on workplace violence was adopted from the World Health Organization to be used in this study. The study demonstratedthe high prevalence

ofworkplace violence among EMS workers, predominantly in the form of verbal abuse. The rate of workplace violence among EMS personnel is comparable with international figures. Less than half of EMS personnel exhibited knowledge regarding the process of violence reporting. However, workers tended not to report the incidents because they often believed that reporting is useless and/or not important**.** Researcher recommended thatwith a high reported rate of workplace violence among EMS personnel, we recommend national preventive measures and encouragement to professionals to report violent events. We also recommend awareness programs for the identified vulnerable group(Alharthy et al., 2017).

2-3-2 Employment status

The book of "IS WORK GOOD FOR YOUR HEALTH AND WELL-BEING" by Gordon Waddell and A Kim Burton illustratedthat Employment is a way of secure the individual economic needs that engage the worker in the society and promote the health, as the socioeconomic status and employment are with a huge relation to physical and mental health and mortality. So the employment status compared to unemployment, reduces the risk and limit the harmful effects of long-term unemployment or sickness absence(Waddell & Burton, 2006).

A report by Bureau of Labor Statistics in U.S. refer to the employment of paramedics or EMT grown to be needed more than other safety jobs like the police, firefighter and even nursing and medical assistants in the United State as survey of traffic safety administration in 2008.soaccording to the increase of calls that department of Labor expected and medical emergence occur an employment requirement increase in United State(LABOR, 2019).

A qualitative approach study recruited 319 participants among EMS refer to implemented the pre-employment screening and hires the experience workers so the work-related injuries and illness could be decrease (Dropkin et al., 2015).That the job need not to be care about the weight or the capability of EMS movement.

2-3-3 Socioeconomic status

Socioeconomic often uses individual levels data such as income, education, and social class. A study of meta-analysis of 414 study showedan odd ratio of 0.83 indicatingan odds risk decrease in the susceptibility of developing a chronic disease among the more educated compared with less well-educated(Smith et al., 2015). Another study that was conducted in 2008 showedthe associationbetween low educational level and the high rate of chronic disease and infection even with poor self-assessed health and premature mortality old age worker population (Nagel et al., 2008).

A study in Britain investigates the relation between health and subjective financial well-being, income analyzing the household survey by logistic regression analysis showed that poor health was related to the poor income, many financial problem or difficulties among meddle age group (Arber et al., 2014). A systematic review a 98 multilevel studies examining the relation between income disparity and overall health, presenting that potentially effect of income on health is confounding by occupational and education (Lynch et al., 2004).

An observational cohort study on EMS agency in North Carolina showedalso that the high level education increased the opportunities to have a better job and that this factor was associated withreduce burnout(Amy Ferketich et al., 2018).

EMT certification less requirement and easy to get with a short time of study, and that mean a capability to inter a work easily and get out from it. However, the Paramedic certification take long time and more financial need to get the certification. So the paramedic have more time dealing with patent and involve with the work more seriously to stay at the job that could put them in greater risk for occupational injuries and illness over a two-fold increase in odds of occupational injures compared to EMT(Amy Ferketich et al., 2018).

2-4 Environmental Factors

Globally the WHO report in 2002 about the environmental factors contributed to an estimated 23 percent of all deaths in 2002(WHO, 2002).

Systematic reviewing reported that work in a green spaces have a good positive determinate on health, this strong relationship gives a better self –assessed health , lower body mass index and improved mental health(Croucher, 2008). This environment could have both negative and positive effect on workers in any field of work.

2-5 Challenges that faced by EMS

2-5-1 Psychological Factors

An analytical-prospective study conducted in Iran with a sample of 260 participantfound that 25% of workers in EMS teams had burn out in Iran and with a similar result from a qualitative study of health problems among EMS in USA(Dropkin et al., 2015; Khatiban et al., 2015)indicating that even with different circumstances and different settings where those studies were conducted, workers in EMS had anxiety and faced stressful situation.

Cross-sectional study design uses a screening tools for asses anxiety disorder was found about 52% of emergency medical professionals have varying degrees of anxiety. High level of burnout among emergency physicians is a well-described entity in literature as the end point of prolonged stress. Unrecognized stress and burnout were found to be associated with loss of professional enthusiasm and job satisfaction and have a psychological impact (Alharthy et al., 2017).

2-5-2 Back pain

A systematic reviews study in the Centre for Reviews and Dissemination (CRD) have shown high risk of low back pain among healthcare workers(Centre for Reviews and Dissemination, 2009). A surveillance studies that were conducted in Europe and in Japan among Japanese EMTs working conditions and health of 2,017 EMTs. The studies showed that health care workers (Nurses and paramedic) are at high risk of back pain due to the work condition, especially pre-hospital emergency medical system like ambulance paramedics who work in encountering stressful conditions, physical needs such as handling patients, long-time standing and unstable work condition(Dunn & Croft, 2004; Okada et al., 2005).

The spine-health foundation mentioned that the occupationalhazard of the nurses and back pain in the workplace is one of the most common work-related injuries. In the case of occupational principles' applied and properly studied, it can help to prevent or reduce work-related back pain, back injuryleads to lost workdays due to injury or pain, for about 166.3 days in the nursing field(Administration, 2017; US STATISTICS, 2014). It had been highlight issue as the major and most injuries among the EMS workers by the NIOSH(NIOSH, 2017b).

A cross-sectional study using a telephone survey present that a Low-back pain (LBP) is a common musculoskeletal disorder in the working population worldwide, almost 80% of the world's population will develop low-back pain at some time in their life. It is estimated that, on any given day, about 10 million people experiencing LBP worldwide. However, most low-back pain episodes are mild and rarely disabling(Freburger et al., 2009).

2-1-3 Musculoskeletal disorder

Musculoskeletal disorders (MSDs) are common among EMS personnel throughout the world. In the Bureau of Labor Statistics (BLS), they mentioned that work-related musculoskeletal disorders currently account for one-third of all occupational injuries and illnesses reported to the BLS by employers every year. These disorders thus constitute the largest job-related injury and illness problem in the United States today (CDC, 2014).

The director of Massachusetts Medical Center Guy Fragala stated that: "Many organizations are realizing that the high rate of musculoskeletal disorders experienced by workers in the healthcare industry remains a major problem"(Guy Fragala, 2005). A cross-sectional study result also detected in the prevalence of Musculoskeletal Disorders among EMS Personnel in Saudi Arabia, Riyadh, and concluded that the very high prevalence of MSDs was found among paramedics. The result of the study showed a very high prevalence of MSDs. The prevalence was highest in this order the lower back (60.3%), knee (41.4%) and the upper back

(40%), and smoking and increasing in the BMI with a relation in common and increased with years of service (Arabia et al., 2018).

2-6-Satisfaction

A study found an average of life satisfaction of 7.88 among nurses and midwivesthat was lower than other health professionals with average of 7.93 and more higher than caring personal service of 7.53(Rosie & Neall, 2018).This lifesatisfaction had slight differences by gender.For example, among nursesand midwivesthe femaleshad better satisfaction thanan average of 7.89 men were 7.80.

While satisfaction of life withage by occupation have a relation of negative one, such increasing in age mean decreasing in satisfaction by occupation described as a slight change between age categories(Rosie & Neall, 2018).

A systematic search study occurthrough published articles from year 2007 till 2017 establish that the longer paramedic work in the job and the more of getting deal with situations and exposure the greater the decline of satisfaction in job will be (Alexander & Klein, 2001; Salleh et al., 2020).

Chapter Three

Methodology

This chapter covers research design and describes the methodology used in this research. It describes the research population represented by EMS professions in the Palestine. It also reviews the selection of the research tool and how it was built, the amendments made and procedures used to verify the validity and consistency of the questionnaire. The study has also dealt with the various statistical methods and tests used in the treatment of data.

3.1 Research design

A cross-sectional study design was used to assess and investigate the occupational hazards andhealth statusamong workersof emergency medical service (EMS teams) with Palestine Red Crescent Society (PRCS), in Palestine.

3.2 Study Population

The study population consists of the emergency medical technician working at PRCS in Palestine. The number of employees according to the Palestine Red Crescent Society until the end of December 2018 are 377 employees distributedas follow (Jerusalem, West bank, Gaza Strip), 260 worker in West Bank, 84 worker in Gaza and 33 in Jerusalem(PRCS, 2018).

Table 3.1 demonstrate the distribution of workers in West Bank, and the percent of the present by the all group of workers.

Table 3.1 display the population distribution in west bank area.

Table 3.1: Distributionof the Emergency medical technician working at PRCS in West Bank(PRCS, 2018)

	Number	**Percent %**
Tulkarem	22	8.46
Qalqilya	19	7.31
Nablus	35	13.46
Tubas	15	5.77
Jenin	29	11.15
Jericho	14	5.38
Bethlehem	18	6.92
Hebron	77	29.62
Ramallah	31	11.92
Population	260	100

3.3 Study sample

The target population was all employees in the EMS.. The questionnaire was distributed to all of 377 employees in Palestinein all branch distributed as 9 main branch in West Bank, 4 in Gaza Strip and the only branch in Jerusalem. Table (3.2) represent number of worker distributed according area.

Table 3.2: distributionof the Emergency medical technician working at PRCS in Palestine.

Area	Number	Percent %
Jerusalem	33	10.13
Gaza	84	21.90
West Bank	260	67.97
sample	377	100

The response rate was 100%, but 41 employees were get out from the research because of missing information in demographic and functional part or did not respond to those section at all. Therefore, the sample size used in the analysis was 306, in percentage of 92.73% of response, excluding 30 questionnairethat used for Pilot testing.

Table 3.3 display the sample distribution of Palestine Red Crescent Society (PRCS) in West Bank and Gaza branches.

Table 3.3: Sample distributionof the Emergency medical technician working at PRCS in West Bank and Gaza area.

West Bank			**Gaza Strip**		
Area	**Number**	**Percent %**	**Area**	**Number**	**Percent %**
Tulkarem	15	7.2	Gaza	13	19.4
Qalqilya	17	8.2	North Gaza	6	9.0
Nablus	30	14.4	middle of Gaza	8	11.9
Tubas	18	8.7	khanYounes	23	34.3
Jenin	22	10.6	Rafah	17	25.4
Jericho	13	6.3			
Bethlehem	16	7.7			
Hebron	57	27.4			
Ramallah	20	9.6			
Total	208	100	Total	67	100

3.4 Eligibility criteria

3.4.1 Inclusion criteria

All Emergency medical technician working at PRCS in Palestine, full-time and Part-time workers, that cover every area of work distribute of EMS worker present.

3.4.2 Exclusive criteria

1. The volunteers who work as EMT at the PRCS

2- Any employee who did not has direct responsibilities in emergency medical service worker such as EMS department managers who just have an office work.

3- Any employee who's counts under the EMS department and did not work in the field.

3.5Ethical consideration

The study was approved by the school of Public Health in Al-Quds University. A permission letter to conduct this study was sent from Al-Quds University to Palestine Red Crescent Society (see appendix. 1). A permission to conduct the study was granted from the head of emergency medical service department and a written note of approval by Administrative Affairs of PRCS main head core (see appendix. 1).The respondents were informed that answering the anonymous questionnaire was voluntary and that information would be treated confidentially.

3.6 Instruments

A structured self-administered questionnaire was used to collect data from the workers (see appendix. 2).

The questionnaire includes 7 parts:

The first part(questions 1-8) includeddemographic data about each worker (Age, sex, education level, marital status, work nature, salary, area of performing work).

The second part (questions 9-16) examinedoccupationalinformation (date of work, level of certification, shift system, respond calls, shift number, other Job, community type).

The third part (questions 17-28) assessing the level of health (general health, sleep, sport, daily activates, psychological health, physical health).

The fourth part (questions29-32) examined the difficulties that worker faced (difficulty of carrying the ambulance equipment, difficulty of walk up the stairs, difficulty of walk for a distance, difficulty and limitation during the normal day time).

The fifth part (questions 33-37) examined the job satisfaction and leave decision.

The sixth part (questions 38-111) examined the (nature, source, event of exposure) of injuries and (nature, source, event of exposure) of illness.(Q: 108.109.110.111 subtitle about absent)

The last part (questions 112-113) examined organization system (time of rest, self-protectionequipment).

The questionnaire has been builtbased on previous studies and distributed in Arabic language(see appendix. 3), to avoid misinterpretation of the questions by the participants. The average time for filling a questionnaire was 10-15 minutes, using both close-ended and open-ended questions.

3.7 Validity and Reliability

The validity was established by having questions checked by five professionals with research background and knowledge of EMS work including researchers, public health professors, administrators, managers of EMS departments (see appendix. 4). The experts rated the content relevance of each item and as a result, some items were added, modified or deleted.

3.8 Pilot study

To measure the validity and applicability of the questionnaire and the clearness of the questions, the elaborated questionnaire was tested in the preliminary survey. To fulfill this survey, 30 employees (7.96 % of the population) were selectedusing convenient sample from different areas including the 3 major areas, 19 employees from West Bank, 3 employees from Jerusalem area, and 8 employees from Gaza strip.

Data were analyzed and in accordance with the results of preliminary survey, the final correction of research instruments was made to make the questions more clear and shorting

the time needed to fill the questionnaire. These pilot questionnaires were excluded and not considered in the final research results.

3.9 Data collection

Data collection took place between 5th January and 10th March 2020. The questionnaire was distributed by the researcher to the emergency medical technician working at PRCS in West Bank and Jerusalem.Data has been collected from West Bank and Jerusalem at their workplace during work time, each questionnaire was completed within the range of 15 to 20 minutes. Data from Gaza Strip has been received after a manager e-mail attached with the questioner, that was done by a trained person visiting the workers in their workplace and returned the paper with the RED CROSS employ through Iriz checkpoint. Collected data was entered and analyzed by using the statistical package SPSS version 21.

3.10 Statistical treatment

This section addresses the different statistical analysis testsused to analyze collected data and to test study hypotheses. SPSS version 21 was utilized to run the following list of tests and describe results. In this study, the researcher used some of the statistical teststo examine the hypothesis and questions as follows.

- Frequencies and percentage to describe the characteristics of the sample and their responses.
- Chi-square test to test the relation between two qualitative variables, when no more than 20% of the expected counts are less than 5 and all individual expected counts are 1 or greater.
- Fisher test to test the relation between two qualitative variables, when the assumption of chi-

square is not satisfied.

- Mean that used 5 scale and others used 3 scale mean.

Table 3.4: Mean of 5 scale.

Mean	**level**
Less than 1.80	Very low
From 1.81 – less than 2.60	Low
From 2.61– less than 3.40	Moderate
From 3.41 – less than 4.20	High
More than 4.21	Very high

Table 3.5: Mean of 3 scale.

Mean	**level**
Less than 1.766	Low
From 1.767 – less than 2.33	Moderate
From 2.34– less than 3.0	High

3.11 Limitations

1-Inability for the researcher personally to reach Gaza strip area because of Israeli occupation

2- The long distance between each main branch and sub-branch in West Bank.

3- Non- existence of all employees at time of visit.

4- Time loss when visiting the branches, by the calls of duty that come in the start or during answering the questionnaire and the present of the same employee after modify the schedule of work that lead the worker to leave the branch and not finishing the questionnaire.

5- Lack of studies in the literature resources. In Arab World, especially in Palestine there is lack of studies related to health assessment conditions among EMS workers which is a major challenge in this study.

Chapter Four

Results

4.1 Introduction

The researcher presents the study results to answer the questions that appeared and were included in the questionnaire, and which represent the problem of the study after collecting the data required by the study tool.

4.2 Sample characteristics

Through the questionnaire, the researcher observed certain characteristics of respondent's that included three parts, demographic characteristic, occupationalcharacteristic, and healthy characteristic, section 4.2.1 to section 4.2.3 display these characteristics respectively.

4.2.1 Demographic characteristics

In this section, the study presented certain demographic characteristics of participants that include eight variables in this study.

Table 4.1: Demographic characteristics by Workplace

		Workplace							Total
		N= 66	Gaza %	N= 207	West Bank %	N= 31	Jerusalem %	N= 304	
Age categories	Less than 30 years	8	12.1%	27	13.0%	13	41.9%	48	15.8%
	30-39 years	12	18.2%	67	32.4%	10	32.3%	89	29.3%
	40-49 years	38	57.6%	74	35.8%	4	12.9%	116	38.2%
	More than 50 years	8	12.1%	39	18.8%	4	12.9%	51	16.8%
Gender	Male	59	88.1%	186	89.4%	31	100.0%	276	90.2%
	Female	8	11.9%	22	10.6%	0	0.0%	30	9.8%
Education level	High School	7	10.4%	46	22.1%	2	6.5%	55	18.0%
	Diploma	41	61.2%	72	34.6%	15	48.4%	128	41.8%
	Bachelor	13	19.4%	80	38.4%	14	45.1%	107	35.0%
	High Diploma	5	7.5%	7	3.4%	0	0.0%	12	3.9%
	Master	1	1.5%	2	1.0%	0	0.0%	3	1.0%
	PhD	0	0.0%	1	0.5%	0	0.0%	1	0.3%
Material Status	Married	63	94.0%	175	84.1%	24	77.4%	262	85.6%
	Divorced	0	0.0%	2	1.0%	0	0.0%	2	0.7%
	Widow	0	0.0%	1	0.5%	0	0.0%	1	0.3%
	Single	4	6.0%	30	14.4%	7	22.6%	41	13.4%
Profession	Patient Care Provider	56	83.6%	157	75.4%	25	80.6%	238	77.8%
	Educator	0	0.0%	1	0.5%	0	0.0%	1	0.3%
	Administrator/Manager	2	3.0%	3	1.4%	0	0.0%	5	1.6%
	PatientCare Provider and Educator	8	11.9%	40	19.2%	6	19.4%	54	17.7%
	PatientCare Provider and Manager	1	1.5%	3	1.4%	0	0.0%	4	1.3%
	PatientCareProvider, Manager and Educator	0	0.0%	4	1.9%	0	0.0%	4	1.3%
Monthly income	2000 – 2999 NIS	27	40.3%	56	27.1%	0	0.0%	83	27.2%
	3000 – 3999 NIS	28	41.8%	52	25.1%	0	0.0%	80	26.2%
	4000 – 4999 NIS	11	16.4%	92	44.4%	0	0.0%	103	33.8%
	5000 – 5999 NIS	1	1.5%	7	3.4%	13	41.9%	21	6.9%
	More than 5999 NIS	0	0.0%	0	0.0%	18	58.1%	18	5.9%

4.2.1.1 Age

As shown in Table 4.1, 38.2% of respondents their age between 40 and 49 years, 29.3% of them are aged between 30 and 39 years, and 16.8% of them their age more than 50 years, while 15.8% of them their age less than 30 years. For employee in Gaza,57.6% of them their age between 40 and 49 years, 18.2% of them their age between 30 and 39 years. In West Bank area, 35.8% of employee their age between 40 and 49 years, 32.4% of them their age between 30 and 39 years, 18.8% of them their age more than 50 years, while 13% of them their age less than 30 years. For Jerusalem area, 41.9% of employee their age less than 30 years, 32.3% of them their age between 30 and 39 years, 25.8% of them their age more than 39 years.

4.2.1.2 Gender

The result in Table 4.1 indicates, 90.2% of EMS professionals were males, and 9.8%of them were females. All EMS professionals in Jerusalem area were male, 89.4% of EMS professionals in West Bank area were male, and 10.6% of them were female. While, in Gaza area 88.1% of EMS professionals are male, and only 11.9% of them were female.

4.2.1.3 Education Level

As shown in Table 4.1, the highest percent of respondents have a diploma degree (41.8%), followed by bachelor (35.0%), high school (18%), while the percent of EMS professionals who have a high diploma 3.9%, and only 1.3% have a master and PhD degree. For EMS professionals who working in Gaza, 61.2% of them have diploma degree, and 19.4% of them have bachelor, about the EMS professionals in West Bank, 38.4% of them have a bachelor

degree, 34.6% of them have a diploma degree, in Jerusalem area, 48.4% of EMS professionals have a diploma degree, 45.1% of them have a bachelor, while no anyone have a high degree.

4.2.1.4 Material Status

The result showed that 85.6% of EMS professionals were married, 13.4% of them were single, and only 1.1% were divorced and widow all of them in west bank area. 94% of EMS professionals in Gaza area were married, 6% of them were single, while 77.4% of EMS professionals who working in Jerusalem area were married, and 22.6% of them were single, about EMS professionals in West Bank area, 84.1% of them were married, 14.4% were single (see Table 4.1).

According to the result in Table 4.1, Table 4.2 display the mean number of childrenin households that the respondents have, the result indicates that the mean children number of EMS professionals in Gaza households is 4.15 child, the maximum number is 9 children, while the mean number of children of EMS professionals in West Bank households is 2.94 children's, whereas the mean number of children of EMS professionals in Jerusalem households is 1.68 children.

Table 4.2: Mean number of children in households by workplace

		N	Mean	Standard deviation	Minimum	Maximum
Number of children's	Gaza	63	4.15	2.536	0	9
	West Bank	178	2.94	2.019	0	8
	Jerusalem	24	1.68	1.661	0	5

4.2.1.5 Profession

The population of the study included three profession fields :patient care provider, manager and educator. Table 4.1 illustrate that 79.7% of EMS professionals were working in one field, 77.8% of them were working aspatient care provider, where as 19.0% were working in two fields, 17.6% of them were working as patient care provider and educator, and only 1.3% were working in three fields.

In addition, in Gaza area, 83.6% of EMS professionals were working as patient care provider, 11.9% of them were working as patient care provider and educator, in West Bank area, 75.4% of them were working as patient care provider, 19.2 % of them were working aspatient care provider and educator, moreover in Jerusalem area, 80.6% of them were working as patient care provider, 19.4% as patient care provider and educator see Table 4.1.

Table 4.3 displays the employment status, the result indicates 93.8% were working a full time, and 6.2% of them were working a part time.

Table 4.3: Employment status Characteristic of EMS Professionals by Workplace

		Workplace				
		Gaza (N=67)	West Bank (N=207)	Jerusalem (N=31)	N=305	Total
Employment status	Full time	89.6%	94.7%	96.8%	286	93.8%
	Part time	10.4%	5.3%	3.2%	19	6.2%
Total		100.0%	100.0%	100.0%	305	100.0%

After studying the EMS professionals field characteristics and employment status, Table 4.1 illustrate EMS professional's monthly income, 33.8% of respondents get a monthly income

between 4000NIS and 4999 NIS, and 26.2% of them get a monthly income between 3000 NIS and 3999 NIS, and only 27.2% of them get a monthly income 2000NIS and 2999 NIS.

For Gaza employees, 41.8% of them get a monthly income between 3000 NIS and 3999 NIS, 16.4% of them get a monthly income between 4000 NIS and 4999 NIS, about West Bank employees, 44.4% of them get a monthly income between 4000 NIS and 4999 NIS, 25.1% of them get a monthly income between 3000 NIS and 3999 NIS, while in Jerusalem area, all employees get a monthly income more than 5000 NIS see Table 4.1.

4.2.2 Occupational information

In this section, the researcher studied certain occupationalcharacteristics of EMS professionals that include the following six variables:

4.2.2.1 Years' of EMS Experience

Table 4.4 indicates that 41.9% of the respondents have more than 15 years of experience, 23.6% of them have 6-10 years of experience, and 17.3% of them have less than 6 years, also 17.3% have 11-15 years.

For employees who working in Gaza, 55.4% of them have more than 15 years of experience, 21.5% of them have 6-10 years, about West Bank area, 41.7% of them have more than 15 years of experience, 22.3% of them have 6-10 years, while 73.4% of employees in Jerusalem area have less than 11 years.

Table 4.4: Years of EMS Experience Characteristic of EMS Professionals by Workplace

		Workplace							
		N= 65	Gaza	N= 206	West Bank	N= 30	Jerusalem	N= 301	Total
Years of EMS Experience	Less than 6 years	3	4.6%	38	18.5%	11	36.7%	52	17.3%
	6-10 years	14	21.5%	46	22.3%	11	36.7%	71	23.6%
	11-15 years	12	18.5%	36	17.5%	4	13.3%	52	17.3%
	More than 15 years	36	55.4%	86	41.7%	4	13.3%	126	41.8%
Total		65	100.0%	206	100.0%	30	100.0%	301	100.0%

4.2.2.2 Certification level of EMS

Table 4.5 indicates that 51.1% of the respondents haveintermediates level of EMS certification, 47.8% of them have a EMT level, while 1% have a paramedic level.

For employees who working in Gaza, 53.7% of them have an intermediate level, 43.3% of them have EMT level, inWest Bank, 55.6% of employees have an intermediate level, 44.4% of them have EMT level, and inJerusalem, 80.7% of employees have EMT level, 16.1% of them have an intermediate level.

Table 4.5: Certification level Characteristic of EMS Professionals by Workplace

		Workplace			
		Gaza (N=67)	West Bank (N=207)	Jerusalem (N=31)	Total (N=305)
Certification level	EMT	43.3%	44.4%	80.7%	47.9%
	Intermediate	53.7%	55.6%	16.1%	51.1%
	Paramedic	3.0%	0.0%	3.2%	1.0%
Total		100.0%	100.0%	100.0%	100.0%

4.2.2.3 Shifts work

The population of study include two set, the first set include the employee in shift work, and other one include the employees didn't work in shift. Table 4.6 illustrate that 85.9% of respondents were working in shift work.The majority of employees in study area were working in shift.

Table 4.6: Shift work status of EMS Professionals by Workplace

		Workplace			
		Gaza (N=66)	West Bank (N=207)	Jerusalem (N=31)	Total (N=304)
Shift work status	Yes	77.3%	87.0%	96.8%	85.9%
	No	22.7%	13.0%	3.2%	14.1%
Total		100.0%	100.0%	100.0%	100.0%

Figure 4.1 indicates that 81.25% of the respondents were working for an average of 22 -31 shifts permonth , 15.1% of them were working for an average less than 22 shifts per month, and only 3.62% were working for anaverage more than 31 shifts per month. For employee who working in shift system (Morning shift, Evening shift, Night shift) 82.76% of them were working in average 22-31shift, 13.41% of them were working less than 22 shift, and only 3.83% were working more than 31 shift. Moreover, 72.09% of employees who didn't work in shift system were working in average 22-31 shift, 25.58% were working less than 22 shift, 2.33% were working more than 31 shift.

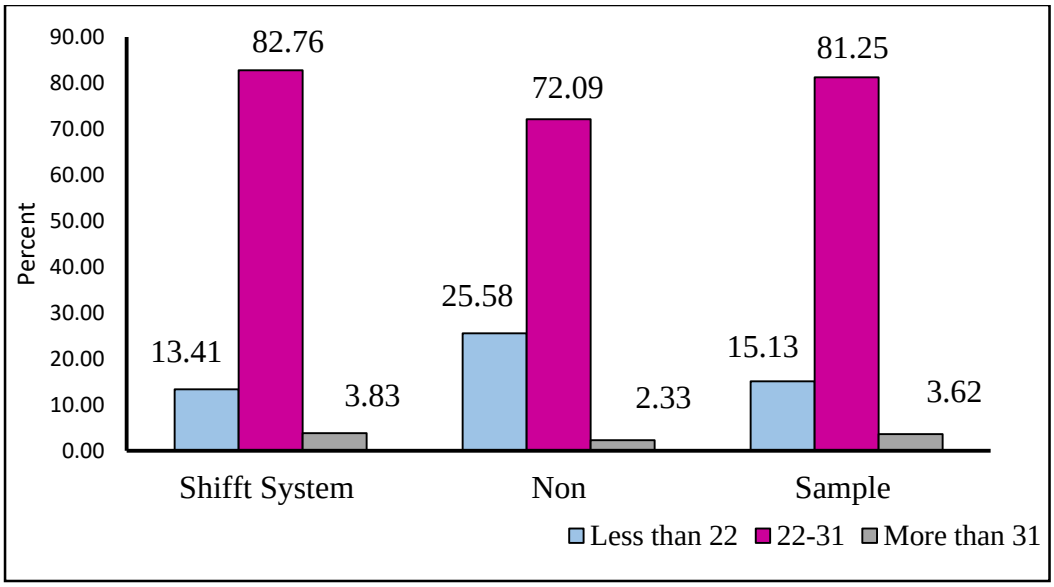


Figure 4.1: The distribution of participants by the average number of monthly shift.

4.2.2.4 Number of calling that EMT responds it in typical week

Table 4.7 clarifies that the highest percent of calls that EMT responded in average 10-14 calls weekly (24.2%), followed by 15-19 calls (18.3%), while the lowest percent of calls that EMT responded less than four calls (2.6%), according the result in Table 4.7, Fisher test (test statistic =23.378, P-value=0.017) indicate that there is a significant relation between number of calling and work place.

Table 4.7: Number of calling that EMT respond it in typical week by Workplace

		Workplace			Total
		Gaza (N=67)	West Bank (N=208)	Jerusalem (N=31)	(N=306)
Number of calling	Less than 4	3.0%	2.9%	0.0%	2.6%
	5 - 9	10.5%	14.9%	0.0%	12.4%
	10 - 14	14.9%	27.9%	19.4%	24.2%
	15 - 19	16.4%	19.2%	16.1%	18.3%
	20 - 24	19.4%	15.9%	29.0%	18.0%
	25 - 29	20.9%	10.6%	29.0%	14.7%
	More than 30	14.9%	8.7%	6.5%	9.8%
Total		100.0%	100.0%	100.0%	100.0%
Fisher test (test statistic = 23.378, P-value=0.017)					

After studying the number of calls that EMT responded in weekly average, the researcher studies the number of calls that EMT responded by work place classification, figure 4.2 indicate that 79.9% of EMT employee were working in city, 17.1% were working in village, and 3% of them were working in camp.

For employee who working in Gaza, 83.3 % of them were working in city, 13.7% were working in camp, 3% in village, about West Bank employees, 75.8% of them were working in city, 24.2% were working in village, while all employees in Jerusalem area were working in a city.

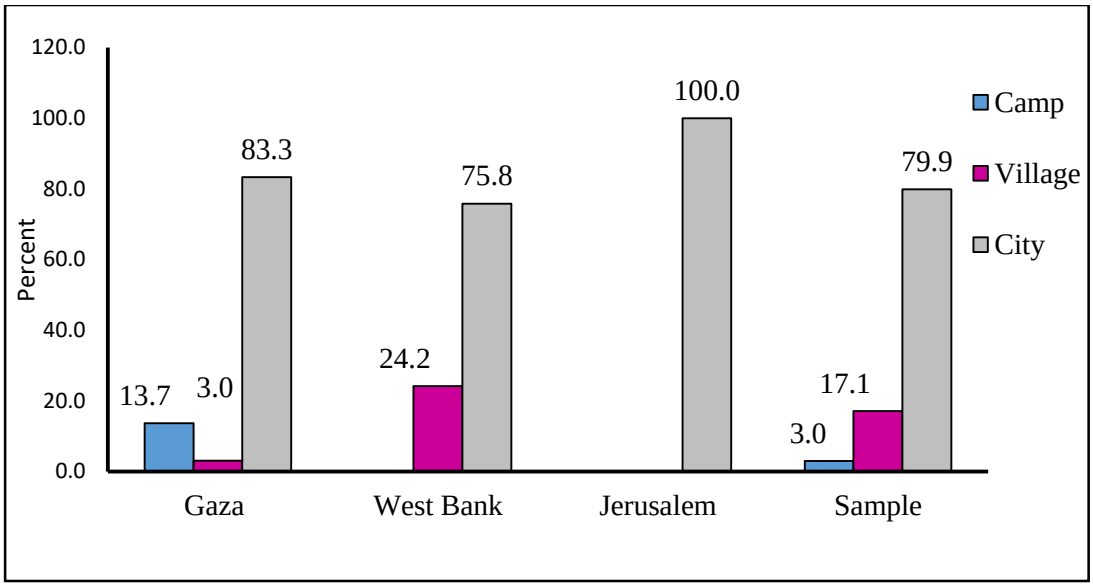


Figure 4.2: The distribution of participants by work place classification.

4.2.3 Healthy Status

4.2.3.1 Overall Heath

In this study, participants were asked about the status of overall health, 46.9% of participants reported that they have a very good level of health, and 31.1% of them have a great level, 19.7% of them have a good level, while 2% of them have a fair level, and only 0.3% of them have a weak level. In addition, the majority of EMT employees in three work places have a very good level of overall heath (Table 4.8).

Table 4.8: Overall health status of EMS Professionals by Workplace

		Workplace			Total
		Gaza (N=67)	West Bank (N=207)	Jerusalem (N=31)	(N=305)
Overall health status	Great	34.3%	29.5%	35.5%	31.1%
	Very good	40.3%	48.8%	48.4%	46.9%
	Good	22.4%	19.3%	16.1%	19.7%
	Fair	1.5%	2.4%	0.0%	2.0%
	Weak	1.5%	0.0%	0.0%	0.3%
Total		100.0%	100.0%	100.0%	100.0%

4.2.3.2 Chronic Disease

Participants were asked if they suffered from any chronic disease, it was found that only 13.1% of participants reported that they suffered from any chronic disease.Figure (4.3) shows that 13.4%, 12.1.%, and 19.4% of participants were suffering from chronic disease in Gaza,West Bank and Jerusalem respectively.

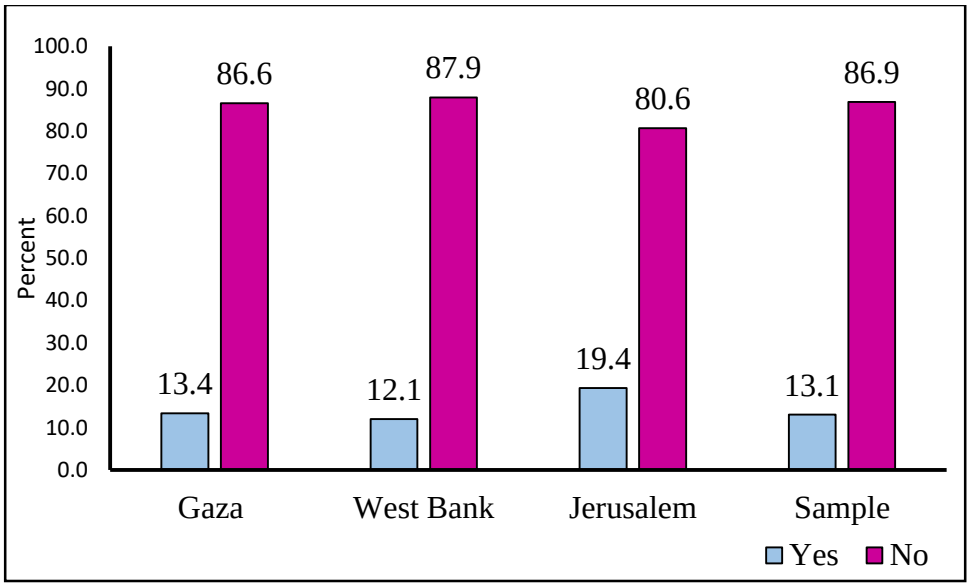


Figure 4.3: The distribution of participants by chronic diseases.

Figure 4.3, shows that 10% of participants have an endocrine systemdisease, 2.5% of participants have skin, 7.5% of participants have a nervous system, 32.5% of participants have diabetes, 7.5% of participants have genetic disease, 12.5% of participants have a heart problem, 12.5% of participants have respiratory problems, and 4.5% of participants have a hypertension.

However, figure 4.4 indicate 33.3% of respondents in Gaza have a hypertension, and 33.3% of them have respiratory problems. In addition, 52% of respondents in West Bank have hypertension, and 48% of them have diabetes, while 33.3% of respondents in Jerusalem have nervous system, heart problem, hypertension respectively.

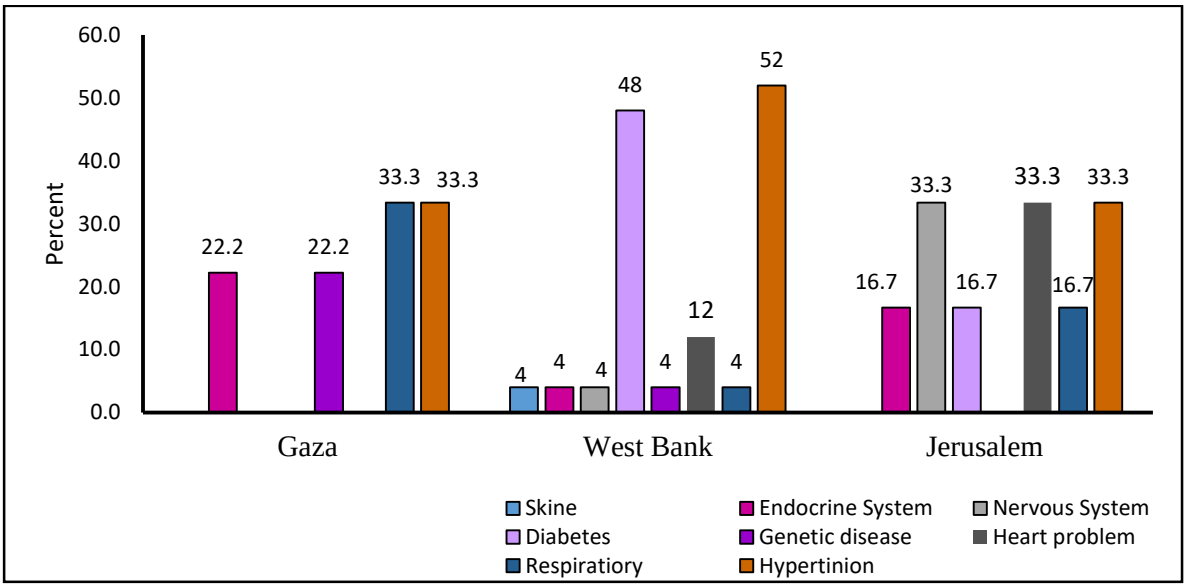


Figure 4.4: The distribution of participants bychronic dieses kind according work place.

4.2.3.3 Daily life activities

4.2.3.3.1 Sleep Time

Table 4.9 illustrate that 3.6% of respondent have a daylight as sleep time, 29.6% of them have a night, while 66.8% of them have a sleep time according to duty time. In addition, none of respondents were working in shift system have a daylight as sleep time, 76.7% of respondents have a night as sleep time, while 23.3% of them have a sleep time according duty time. While 73.9% of respondents who were working in shift system have a sleep time

according to duty time, 21.9% of them have night as sleep time, and only 4.2% of them have daylight as a sleep time.

Table 4.9: Sleep time of EMS Professionals by shift work status

		Shift work status		Total (N=304)
		Yes (N=261)	No (N=43)	
Sleep time	Daylight	4.2%	0.0%	3.6%
	Night	21.9%	76.7%	29.6%
	According to duty time	73.9%	23.3%	66.8%
Total		100.0%	100.0%	100.0%

Figure 4.5 shows that 45.59% of respondent who working in shift system were sleeping 6 hours, while 10.35% of them were sleepingmore than 7 hours, 22.99% of them were sleeping7 hours, 21.07% of them were sleepingless than 5 hours. Moreover, 37.21% of respondents who didn't work in shift system were sleeping6 hours, 20.39% of them were sleeping7 hours, and 27.91% of them were sleepingless than 5 hours, while 13.95% of them were sleepingmore than 7 hours.

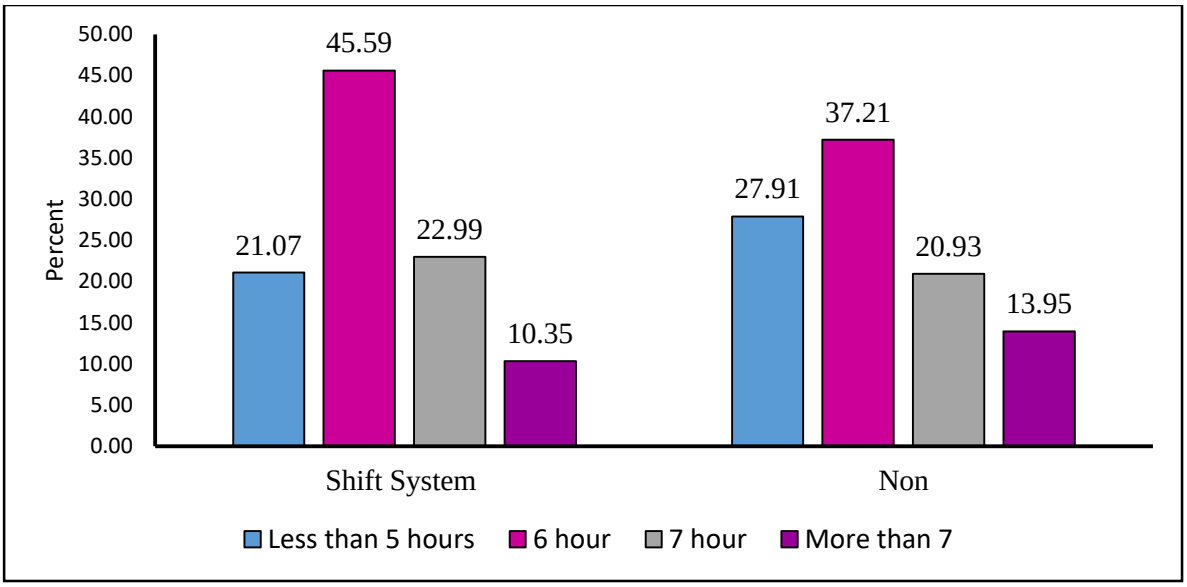


Figure 4.5: The distribution of participants by sleeping hours.

4.2.3.3.2 Physical activity

As shown in Table 4.10, 47.7% of respondents didn't practice any physical activity, also 32.4% of them only practice physical activity one or two time weekly, 16% of them 3-4 time, and only 3.9% of them practice physical activity more than 5 times.

Table 4.10: Sample physical activity Characteristic

Classifications	**N**	**Percent %**
Didn't practice	146	47.7
1-2	99	32.4
3-4	49	16.0
More than 5	12	3.9
Total	306	100.0

Result shows that 39.5% of respondents practiced physical activity for 30 minutes, 38.2% of them for 15 minutes, 17.8% of them forone hour, 17.8% of them fortwo hours, and only 0.6% of them for more than two hours. However, 94.3% of employees have an average physical

time perweek for less than 150 minutes, while 5.7% of them have an average physical time per week more than or equal 150 minutes.

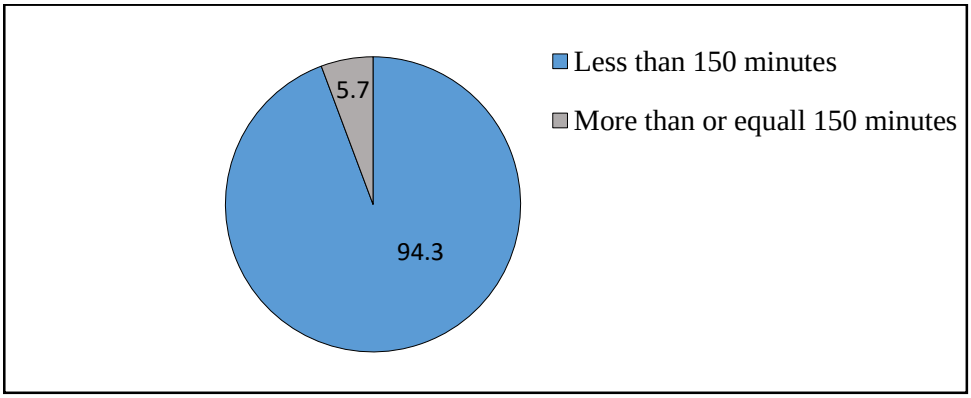


Figure 4.6: The distribution of participants according to the average time of physical activities per week

4.2.3.3.3 Other daily activities

Tables 4.11 clarifies that 61.5% of respondents takes a breakfast on average most of days. 18.3% of them take it twice or three times, and only 20.30% of them take it rarely. In addition, 53.1% of respondents are smoking, and 24.6% of them were wearing medical glasses.

Table 4.11: Other daily activities

Variable	Classifications	Frequency	Percent %
Break fast	**Rarely**	62	20.30
	Twice or three times	56	18.3
	Most of the days	188	61.50
	Total	306	100.0
Smoking	**Yes**	162	53.1
	No	143	46.9
	Total	305	100.0
Wear medical glasses	**Yes**	75	24.6
	No	230	75.4
	Total	305	100.0

4.3 Difficulties that faced EMS professionals

This section presentsthe results of four hypotheses which stating: **"There is no significant relation between difficulties that faced EMS professionals (difficulty of carrying the ambulance equipment, difficulty of walk up the stairs, difficulty of walk for a distance, difficulty during the normal day time) and work place"**

Table 4.12 illustrate that:

- There is no significant relation between difficulties that faced EMS professional's difficulty of carrying the ambulance equipment and work place (p-value=0.198), however, 6.9% of EMS professionals faced difficulty of carrying the ambulance equipment, and 20.9% of them sometimes faced this difficulty.
- There is no significant relation between difficulties that faced EMS professional's difficulty of walk up the stairs and work place (p-value=0.137), however, 16% of EMS professionals faced difficulty of walk up the stairs, and 28.1% of them sometimes facedthis difficulty.
- There is no significant relation between difficulties that faced EMS professional's difficulty of walk for a distance and work place (p-value=0.697), however, 13.2% of EMS professionals faced difficulty of walk for a distance, 24.7% of them sometimes facedthis difficulty.
- There is no significant relation between difficulties that faced EMS professional's difficulty during the normal day time and work place (p-value=0.379), however, 16.7% of EMS professional's faced difficulty during the normal day time, 20.9% of them sometimes facedthis difficulty.

Table 4.12:Relation between difficulties that faced EMS professionals and work place

Variables		Workplace				Test statistic (Sig.)
		Gaza (N=67)	West Bank (N=208)	Jerusalem (N=31)	Total (N=306)	
Carrying the ambulance equipment	Yes	4.5%	6.7%	12.9%	6.9%	5.805b (0.198)
	No	82.1%	69.7%	67.7%	72.2%	
	Some times	13.4%	23.6%	19.4%	20.9%	
Walk up the stairs	Yes	23.9%	12.5%	22.6%	16.0%	6.984b (0.137)
	No	55.2%	56.7%	51.6%	55.9%	
	Some times	20.9%	30.8%	25.8%	28.1%	
Walk for a distance	Yes	11.9%	13.6%	12.9%	13.2%	2.227b (0.697)
	No	65.7%	59.7%	71.0%	62.2%	
	Some times	22.4%	26.7%	16.1%	24.7%	
During the normal day time	Yes	20.9%	16.3%	9.7%	16.7%	4.203b (0.379)
	No	53.7%	63.5%	74.2%	62.4%	
	Some times	25.4%	20.2%	16.1%	20.9%	

b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Figure 4.7 showsthat the most difficulties that the EMS professionals in Gaza area faced are difficulties during the normal day time, followed by difficulties of walking up the stairs. However, the most difficulties that the EMS professionals in West Bank area faced are difficulties of walking up the stairs, followed by walk by distance. While, the most difficulties that the EMS professionals in Jerusalem area faced are walk up the stairs, followed by difficulty of carrying the ambulance equipment.

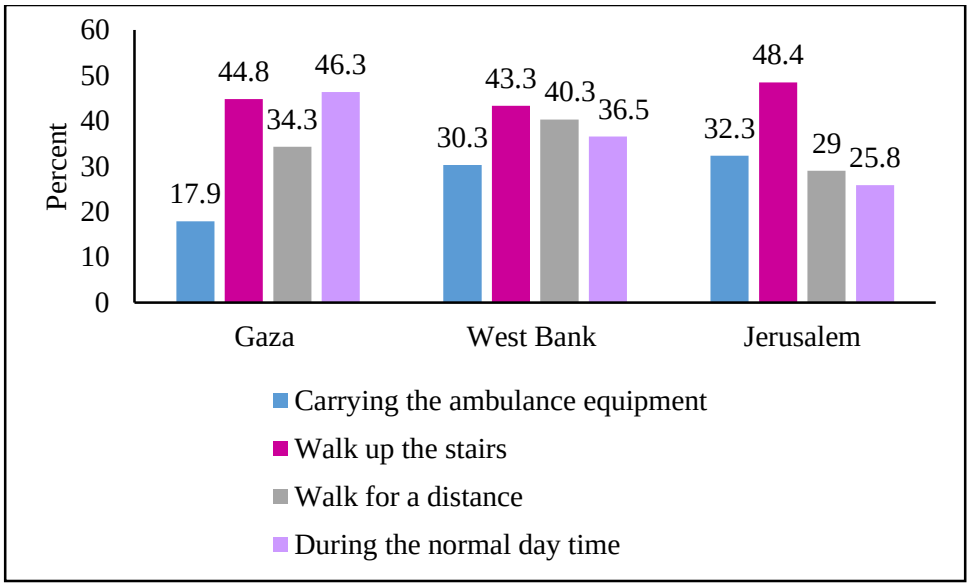


Figure 4.7: Difficulties that the EMS professionals by work place faced, the percent represented two classifications of difficulties (yes, some times)

4.4 Work injury and illness at work

This section presentsthe results of two hypotheses which stating:

1- **"There is no significant relation between work injury and work place"**

2- **"There is no significant relation between illness at work and work place"**

By using the tests ofFisher's test and Chi-square test.

Table 4.13showsthat there is no significant relation between work injury and work place (p-value=0.777). However, 61.8% of employees have a work injury, 64.5% of EMS professionals in Jerusalem area have a work injury,62.5% of EMS professionals in West Bank area have a work injury and 58.2% in Gaza area. Also, there is no significant relation between illness at work and work place (p-value=0.226). However, 42.5% of employees have an

illness at work, 44.8% of EMS professionals in Gaza area have an illness at work, 39.9% of EMS professionals in Jerusalem area have an illness at work, and 54.8% in a West Bank area.

Table 4.13:Relation between Work injury and illness at work and work place

Variables		Work place				Test statistic (Sig.)
		Gaza (N=67)	West Bank (N=208)	Jerusalem (N=31)	Total (N=306)	
Work injury	Yes	58.2%	62.5%	64.5%	61.8%	0.506 (0.777)
	No	41.8%	37.5%	35.5%	38.2%	
Illness at work	Yes	44.8%	39.9%	54.8%	42.5%	2.647 (0.226)
	No	55.2%	60.1%	45.2%	57.5%	

4.5 Psychological health status

In this section, the researcher presentspsychological health status of EMT professions according their work, By using the tests of Fisher's test and Chi-square test. Also, in this section, the researcher displays the results of the three hypotheses which stating:

1- There is no relation between the psychological suffering due work and work place.

2- There is no relation between the psychological suffering due work and work injury.

3- There is no relation between the psychological suffering due work and illness at work.

4.5.1 Relation between the psychological suffering due work and work place

Our findings show that a total of 66% of participants suffered from a psychological problem according to their work, and 34% of them didn't suffer. Chi-square test was used to test the first hypotheses, and the result indicate that there is a significant relation between psychological suffering and work place (test statistic =14.423, p-value=0.001). While, figure 4.8 shows that 85.1%, 61.5%, and 54.8% of participants were suffering from psychological diseases in Gaza, West Bank and Jerusalem respectively.

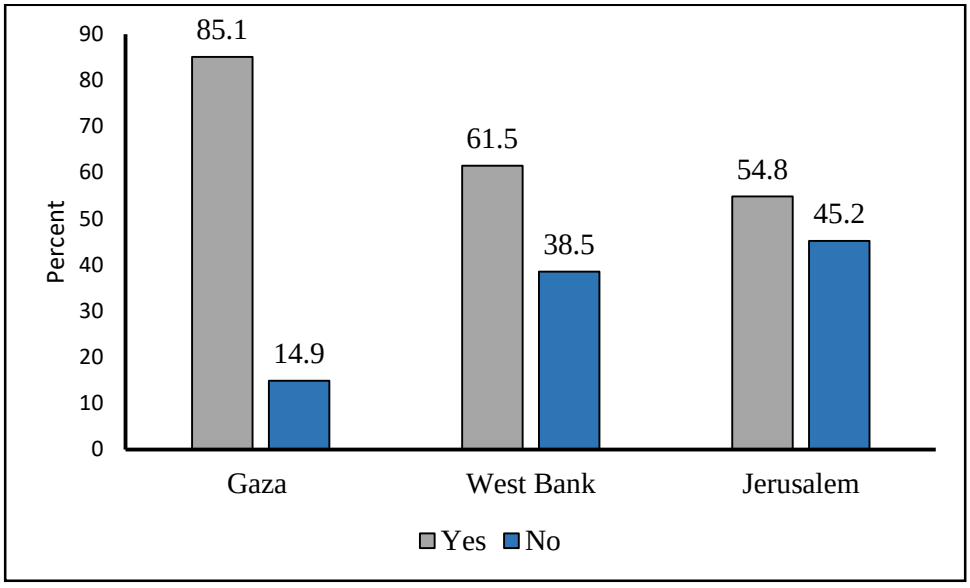


Figure 4.8: The distribution of participant's psychological suffering by work place.

Table 4.14clarifies that there is no significant relation between anxiety or frustration suffering and work place (p-value=0.432). 50.9% of participants in Gaza suffering from anxiety or frustration in some times. 35.9% of them suffering in some time, while 47.1% of them suffering in sometimes.

However, Table 4.14clarifies that there is no significant relation between discomfort and fear feeling and work place (p-value=0.115), 36.8% of participants in Gaza feeling discomfort and fear in some time and 21.1% of them inmost of time. 32% of participants in West Bank feeling discomfort and fear in most of time, 28.1% of them feeling in some times, while 58.8% of participants in Jerusalem feeling discomfort and fear in most of time and sometimes.

Moreover, Table 4.14clarifies that there is no significant relation between sadness feeling and work place (p-value=0.065). 54.4% of participants in Gaza feeling sadness in most of timeand good of time. 35.2% of participants in West Bank feeling sadness in most of time, 9.4%% of them feeling from sadness in all of time, while 47.1% of participants in Jerusalem feeling from sadness in most of timeand 29.4% them feeling in good of time.

Table 4.14:Relation between psychological health status and work place

Variables		Work place				Test statistic (Sig.)
		Gaza (N=57)	West Bank (N=128)	Jerusalem (N=17)	Total (N=202)	
Anxiety or Frustration	Little of time	35.1%	46.9%	47.1%	43.6%	7.384a (0.432)
	Sometimes	50.9%	35.9%	47.1%	41.1%	
	Good time	0.0%	4.7%	0.0%	3.0%	
	Most of time	10.5%	10.9%	5.9%	10.4%	
	All of time	3.5%	1.6%	0.0%	2.0%	
Discomfort and fear	Little of time	17.5%	16.4%	0.0%	15.3%	12.272a (0.115)
	Sometimes	36.8%	28.1%	29.4%	30.7%	
	Good time	19.3%	21.1%	23.5%	20.8%	
	Most of time	21.1%	32.0%	29.4%	28.7%	
	All of time	5.3%	2.3%	17.6%	4.5%	
Sadness	Little of time	8.8%	10.9%	0.0%	9.4%	14.740b (0.065)
	Sometimes	28.1%	14.1%	0.0%	16.8%	
	Good time	28.1%	30.5%	29.4%	29.7%	
	Most of time	26.3%	35.2%	47.1%	33.7%	
	All of time	8.8%	9.4%	23.5%	10.4%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Figure 4.9 indicates that the level of anxiety or frustration of EMS professionals who's suffered from psychological problems in Gaza, West Bank, and Jerusalem is moderate (mean=2.96, mean=2.84, mean=2.65) respectively. Moreover, level of discomfort and fear of EMS professionals who's suffered from psychological problems in Gaza is moderate (mean=3.40), while the level of discomfort and fear of EMS professionals who's suffered from psychological problems in West Bank, and Jerusalem is moderate, high

(mean=3.24,mean=4.25) respectively. However, the level of sadness of EMS professionals who's suffered from psychological problems in Gaza, West Bank, and Jerusalem is moderate(mean=3.02, mean=2.82, mean=2.06) respectively.

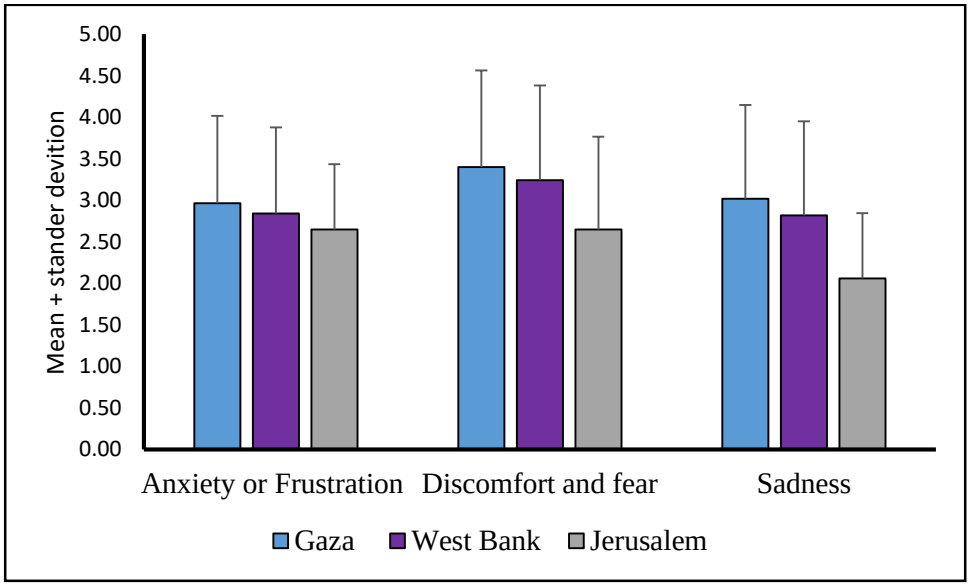


Figure 4.9: Level of psychological suffering according work place.

4.5.2 Relation between the psychological suffering due work and work injury.

Table 4.15clarifies that there is a significant relation between psychological suffering and work injury (p-value=0.011). While, 71.4% of workerinjured are suffering from psychological problems, 28.6% of them didn't suffer from any psychological problems, moreover, 57.3% of workernon-injured are suffering from psychological problems, 42.7% of them didn't suffer from any psychological problems.Furthermore, Table 4.15clarifies that there is no significant relation between anxiety or frustration feeling and work injury (p-value=0.824). While, there is a significant relation between discomfort and fear feeling and work injury (p-value=0.047).

Also, that there is no significant relation between sadness feeling and work injury (p-value=0.189).

Table 4.15:Relation between psychological health status and work injury

Variables		**Work injury**			**Test statistic (Sig.)**
		Yes (N=189)	**No (N=117)**	**Total (N=306)**	
Suffering Psychological problems	Yes	71.4%	57.3%	66.0%	**6.461b (0.011)**
	No	28.6%	42.7%	34.0%	
Psychological problems		**Yes (N=135)**	**No (N=67)**	**Total (N=202)**	**Test statistic (Sig.)**
Anxiety or Frustration	Little of time	40.7%	49.3%	43.6%	1.679a (0.824)
	Sometimes	43.7%	35.8%	41.1%	
	Good time	3.0%	3.0%	3.0%	
	Most of time	10.4%	10.4%	10.4%	
	All of time	2.2%	1.5%	2.0%	
Discomfort and fear	All of time	20.7%	4.5%	15.3%	**9.722b (0.047)**
	Most of time	28.9%	34.3%	30.7%	
	Good time	18.5%	25.4%	20.8%	
	Sometimes	28.1%	29.9%	28.7%	
	Little of time	3.7%	6.0%	4.5%	
Sadness	All of time	10.4%	7.5%	9.4%	6.156b (0.189)
	Most of time	20.7%	9.0%	16.8%	
	Good time	28.9%	31.3%	29.7%	
	Sometimes	29.6%	41.8%	33.7%	
	Little of time	10.4%	10.4%	10.4%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Figure 4.10 indicates that the level of anxiety or frustration of injured and non-injured EMS professionals who's suffered from psychological problems is moderate (mean=2.90, mean=2.79) respectively. Moreover, level of discomfort and fear of injured and non-injured EMS professionals who's suffered from psychological problems is moderate (mean=3.35, mean=3.01) respectively. However, the level of sadness of injured and non-injured EMS professionals who's suffered from psychological problems is moderate(mean=2.91, mean=2.61) respectively.

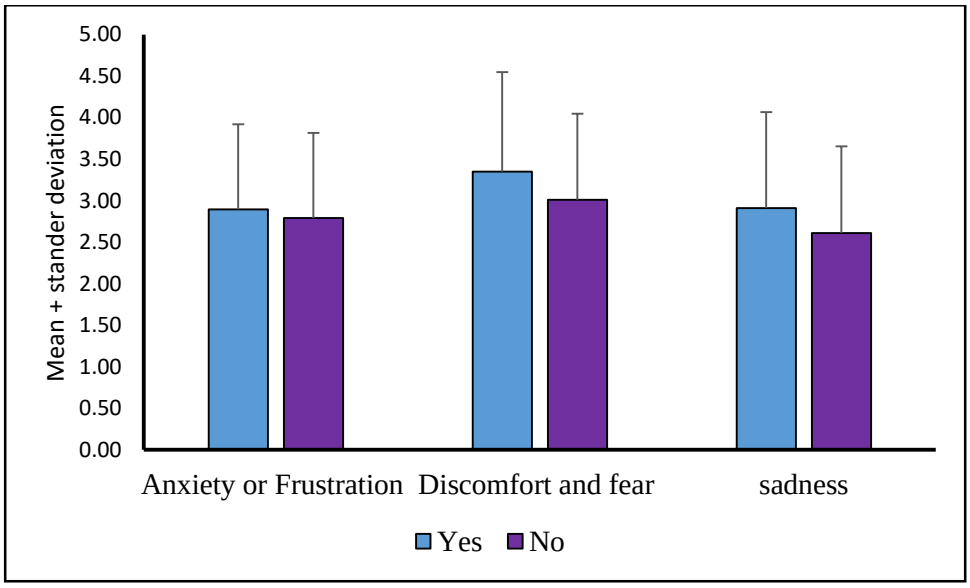


Figure 4.10: Level of psychological problems according work injury.

4.5.3 Relation between the psychological suffering due wok and illness at work.

Table 4.16clarifies that there is a significant relation between psychological suffering and illness at work (p-value=0.006), 74.6% of participants who's have an illness at work are suffering from psychological problems, 25.4% of them didn't suffer from any psychological problems, moreover, 59.7% of participants who's don't have any illness at work are suffering from psychological problems, 40.3% of them didn't suffer from any psychological problems.

Furthermore, Table 4.16 clarifies that there is a significant relation between anxiety or frustration suffering and illness at work (p-value=0.007). While, there is a significant relation between discomfort and fear feeling and illness at work (p-value=0.000). Also, that there is no significant relation between sadness feeling and illness at work (p-value=0.066).

Table 4.16:Relation between psychological health status and illness at work

Variables		**Illness at work**			**Test statistic (Sig.)**
		Yes (N=130)	**No (N=176)**	**Total (N=306)**	
Suffering Psychological problems	Yes	74.6%	59.7%	66.0%	**7.455b (0.006)**
	No	25.4%	40.3%	34.0%	
Psychological problems		**Yes (N=97)**	**No (N=105)**	**Total (N=202)**	**Test statistic (Sig.)**
Anxiety or Frustration	Little of time	32.0%	54.3%	43.6%	**12.894a (0.007)**
	Sometimes	46.4%	36.2%	41.1%	
	Good time	5.2%	1.0%	3.0%	
	Most of time	14.4%	6.7%	10.4%	

	All of time	2.1%	1.9%	2.0%	
Discomfort and fear	All of time	25.8%	5.7%	15.3%	**22.565b (0.000)**
	Most of time	35.1%	26.7%	30.7%	
	Good time	15.5%	25.7%	20.8%	
	Sometimes	21.6%	35.2%	28.7%	
	Little of time	2.1%	6.7%	4.5%	
Sadness	All of time	13.4%	5.7%	9.4%	8.806b (0.066)
	Most of time	17.5%	16.2%	16.8%	
	Good time	34.0%	25.7%	29.7%	
	Sometimes	24.7%	41.9%	33.7%	
	Little of time	10.3%	10.5%	10.4%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Figure 4.11 indicates that the level of anxiety or frustration of ill EMS professionals who's suffered from psychological problems is moderate (mean=3.08), while the level of non-ill EMS professionals is moderate (mean=2.66). Moreover, the level of discomfort and fear feeling of ill and non-ill EMS professionals who's suffered from psychological problems is high, moderate (mean=3.61, mean=2.90) respectively. While, the level of sadness feeling of ill and non-ill EMS professionals who's suffered from psychological problems is moderate (mean=2.99, mean=2.65) respectively.

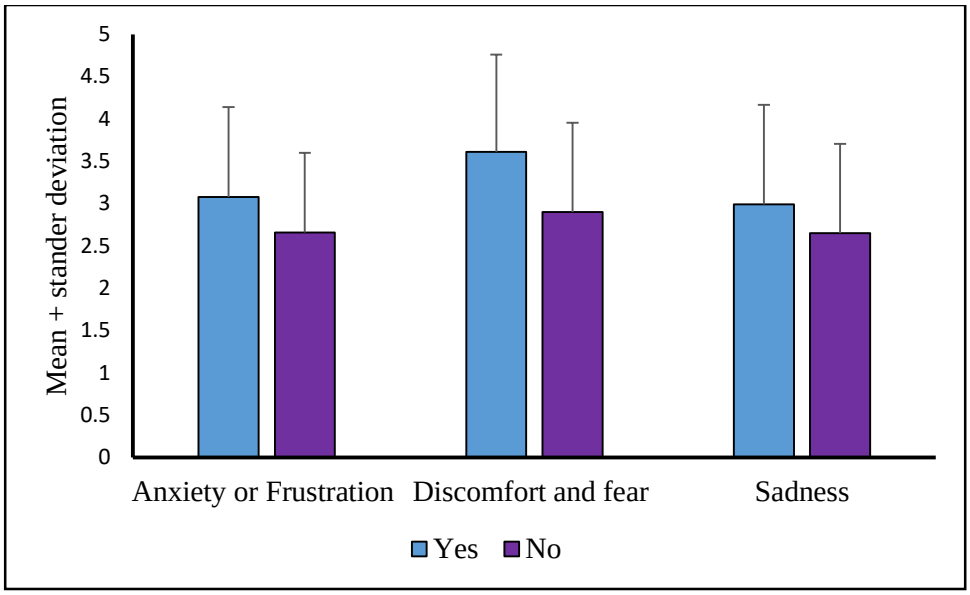


Figure 4.11: Level of psychological problems according illness at work.

4.5.4 Relation between the physical pain and psychological suffering.

In this section, the researcher displays the results of three hypotheses which stating:

1- "**There is no relation between the physical pain and work place"**

2- "**There is no relation between the physical pain level and work place"**

3- "**There is no relation between the psychological suffering due work and physical pain"**

Table 4.17 clarifies that there is no significant relation between physical pain and work place (p-value=0.332), 31.8% of participants were suffering from physical pain, 68.2% of them didn't suffer from any physical pain.

Furthermore, Table 4.17clarifies that there is a significant relation between physical pain level and work place (p-value=0.028). 50.5% of participants were suffering from physical pain in moderate level, 34% of them were suffer any physical pain in very moderate level.

Table 4.17:Relation between physical pain status and work place

Variables		Work place				Test statistic (Sig.)
		Gaza (N=57)	West Bank (N=128)	Jerusalem (N=17)	Total (N=202)	
Physical pain	Yes	29.9%	32.9%	29.0%	31.8%	0.332b (0.827)
	No	70.1%	67.1%	71.0%	68.2%	
Level of physical pain	Very moderate	20.0%	38.2%	33.3%	34.0%	**12.404a (0.028)**
	Moderate	60.0%	45.6%	66.7%	50.5%	
	Pain full	5.0%	16.2%	0.0%	12.4%	
	Sever pain	15.0%	0.0%	0.0%	3.1%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Chi-square test was used to test the third hypotheses, and the result indicates that there is a significant relation between psychological suffering and physical pain status (p-value=0.000) (see Table 4.18).

Table 4.18:Relation between physical pain status and psychological suffering

		Psychological suffering			Test statistic (Sig.)
		Yes (N=201)	No (N=104)	Total (N=305)	
Physical pain	Yes	42.8%	10.6%	31.8%	32.783 (0.000)
	no	57.2%	89.4%	68.2%	

4.6 EMS profession satisfaction and Decision of leaving

4.6.1 Satisfaction of profession

In this section, the study presents three different hypotheses. In order to show the relation between satisfaction of profession and work place, work injury, and illness work, a Fisher test and Chi-square test were used.

4.6.1.1 Relation between Satisfaction of profession and work place

This section displays the result of hypothesis which stating: **"There is no significant relation between profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor)and work place".**

In order to test the hypothesis, Fisher test was conducted to test the relation between satisfaction of profession under this organization and work place, the result in Table 4.19 indicates that there is a significant relation between them (P-value=0.000). However, there is no significant relation between satisfaction of EMS profession and work place (P-value=0.098). Also there is a significant relation between satisfaction of directed supervisor and work place (P-value=0.001).

Table 4.19: Relations between Satisfaction of profession and work place

Variables		Work place				Test statistic (Sig.)
		Gaza (N=67)	West Bank (N=208)	Jerusalem (N=31)	Total (N=306)	
Under this organization	Dissatisfied	1.5%	9.2%	0.0%	6.6%	40.699 (0.000)
	Neutral	0.0%	26.1%	25.8%	20.3%	
	Satisfied	98.5%	64.7%	74.2%	73.1%	
EMS profession	Dissatisfied	0.0%	1.0%	0.0%	0.7%	**6.978 (0.098)**
	Neutral	1.5%	8.7%	0.0%	6.2%	
	Satisfied	98.5%	90.4%	100.0%	93.1%	
Direct supervisor	Dissatisfied	0.0%	7.2%	6.5%	5.6%	18.128 (0.001)
	Neutral	3.0%	15.9%	3.2%	11.8%	
	Satisfied	97.0%	76.9%	90.3%	82.7%	

4.6.1.2 Relation between Satisfaction of profession and work injury

This section displays the result of hypothesis which stating: **"There is no significant relation between profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor) and work injury".**

In order to test the hypothesis, the result in Table 4.20 indicate that there is no significant relation between satisfaction of EMS profession and work injury (P-value=0.194). However, there is no significant relation between satisfaction of EMS profession under this organization and work injury (P-value=0.378), also there is no significant relation between satisfaction of directed supervisor and work injury (P-value=0.328).

Table 4.20: Relations between satisfaction of profession and work injury

Variables		Work injury			Test statistic (Sig.)
		Yes (N=188)	No (N=117)	Total (N=306)	
Under this organization	Dissatisfied	8.0%	4.3%	6.6%	3.277 (0.194)
	Neutral	22.3%	17.1%	20.3%	
	Satisfied	69.7%	78.6%	73.1%	
EMS profession	Dissatisfied	1.1%	0.0%	0.7%	2.030 (0.378)
	Neutral	7.4%	4.3%	6.2%	
	Satisfied	91.5%	95.7%	93.1%	
Direct supervisor	Dissatisfied	6.9%	3.4%	5.6%	2.227 (0.328)
	Neutral	12.7%	10.3%	11.8%	
	Satisfied	80.4%	86.3%	82.7%	

According to the results in table 4.20, figure 4.12 displays the relation between the satisfaction level and work injury according to work place. In Gaza area, there is no relation between work injury and level of satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor), also the result indicates that the level of satisfaction of EMS profession under this organization is high for injured and non-injured EMT (mean=2.95, mean=3) respectively. Moreoverthe level of satisfaction of EMS profession is high for injured and non-injured (mean=2.97, mean=3) respectively, moreover the level of satisfaction of direct supervisor is high also for injured and non-injured EMT (mean=2.95, mean=3) respectively.In West Bank area, there is no relation between work injury and level of satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor), also the result indicates that the level of satisfaction of EMS profession under this organization is high for injured and non-injured EMT (mean=2.5, mean=2.64) respectively, also the level of satisfaction of EMS profession is high for injured and non-injury (mean=2.87, mean=2.94) respectively, also the level of satisfaction of direct supervisor is high for injured and non-injury EMT (mean=2.65, mean=2.77)respectively. In Jerusalem area, there is no relation between work injury and level of satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor), The result indicates that the level of satisfaction of EMS profession under this organization is high for injured and non-injured EMT (mean=2.7, mean=2.82) respectively, The level of satisfaction of EMS profession is high for injured and non-injury (mean=3, mean=3) respectively, moreover the level of satisfaction of

direct supervisor is high for injured and non-injured EMT (mean=3.85, mean=2.82)respectively.

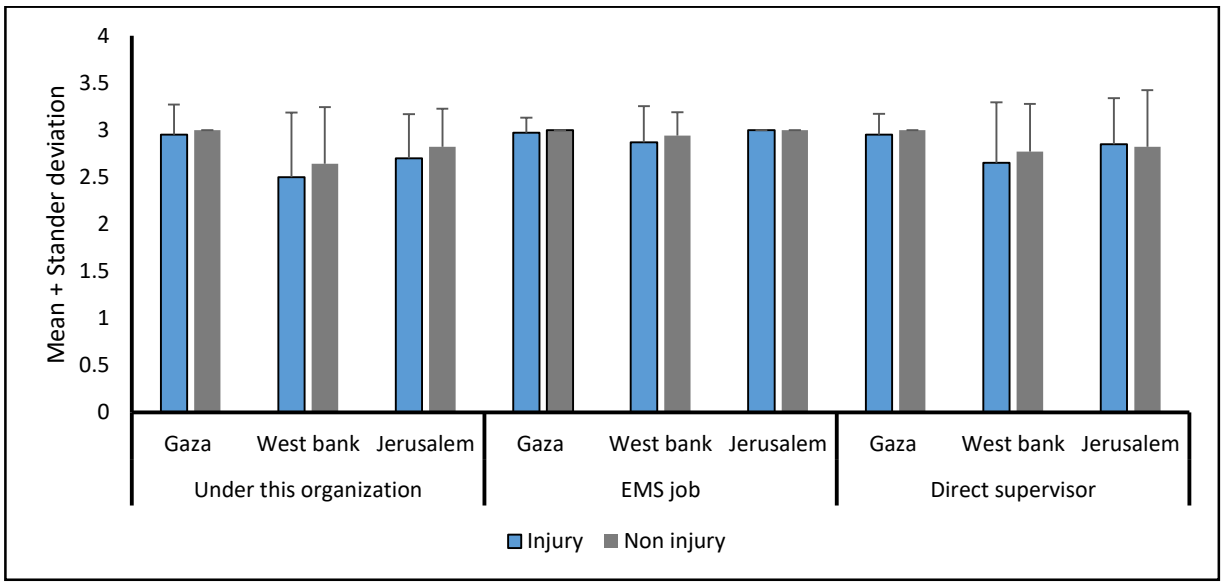


Figure 4.12: Level of Satisfaction of profession due to work injury according work place

4.6.1.3 Relation between Satisfaction of profession and illness at work

This section displays the result of hypothesis which stating: **"There is no significant relation between profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor) and illness at work"**

Table 4.21 Clarifies that there is no significant relation between satisfaction of EMS profession and illness at work (P-value=0.099). There is no significant relation between satisfaction of EMS profession under this organization and work injury (P-value=0.207), also there is no significant relation between satisfaction of directed supervisor and work injury (P-value=0.154).

Table 4.21: Relations between satisfaction of profession and illness at work

Variables		illness at work			Test statistic (Sig.)
		Yes (N=130)	No (N=176)	Total (N=306)	
Under this organization	Dissatisfied	10.0%	4.0%	6.6%	4.408 (0.110)
	Neutral	20.0%	20.6%	20.3%	
	Satisfied	70.0%	75.4%	73.1%	
EMS profession	Dissatisfied	1.5%	0.0%	0.7%	4.376 (0.073)
	Neutral	8.5%	4.5%	6.2%	
	Satisfied	90.0%	95.5%	93.1%	
Direct supervisor	Dissatisfied	8.5%	3.4%	5.6%	4.253 (0.119)
	Neutral	13.1%	10.8%	11.8%	
	Satisfied	78.5%	85.8%	82.7%	

Figure 4.13 displays the relation between the satisfaction level and illness at work according work place. In Gaza area, there is no relation between illness at work and level of satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor).The result indicates that the level of satisfaction of EMS profession under this organization is high for ill and non-ill EMT (mean=3, mean=2.95)respectively. The level of satisfaction of EMS profession is high for ill and non-ill (mean=3, mean=2.97) respectively,moreover the level of satisfaction of direct supervisor is high also for ill and non-ill EMT (mean=2.97, mean=2.97)respectively. In West Bank area, there is a relation between illness at work and level of satisfaction in three in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor), also the result indicates that the level of satisfaction of EMS profession under this organization is high for ill and non-ill EMT

(mean=2.43, mean=2.64) respectively, also the level of satisfaction of EMS profession is high for ill and non-ill (mean=2.82, mean=2.94) respectively, moreover the level of satisfaction of direct supervisor is high for ill and non-ill EMT (mean=2.55, mean=2.79) respectively. In Jerusalem area, there is no relation between illness at work and level of satisfaction in three in three dimensions (satisfaction ofEMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor).The result indicates that the level of satisfaction of EMS profession under this organization is highfor ill and non-ill EMT (mean=2.71, mean=2.79) respectively. The level of satisfaction of EMS profession is high for ill and non-ill EMT (mean=3, mean=3)respectively, moreover the level of satisfaction of direct supervisor is high for ill and non-ill EMT (mean=2.94, mean=2.71).

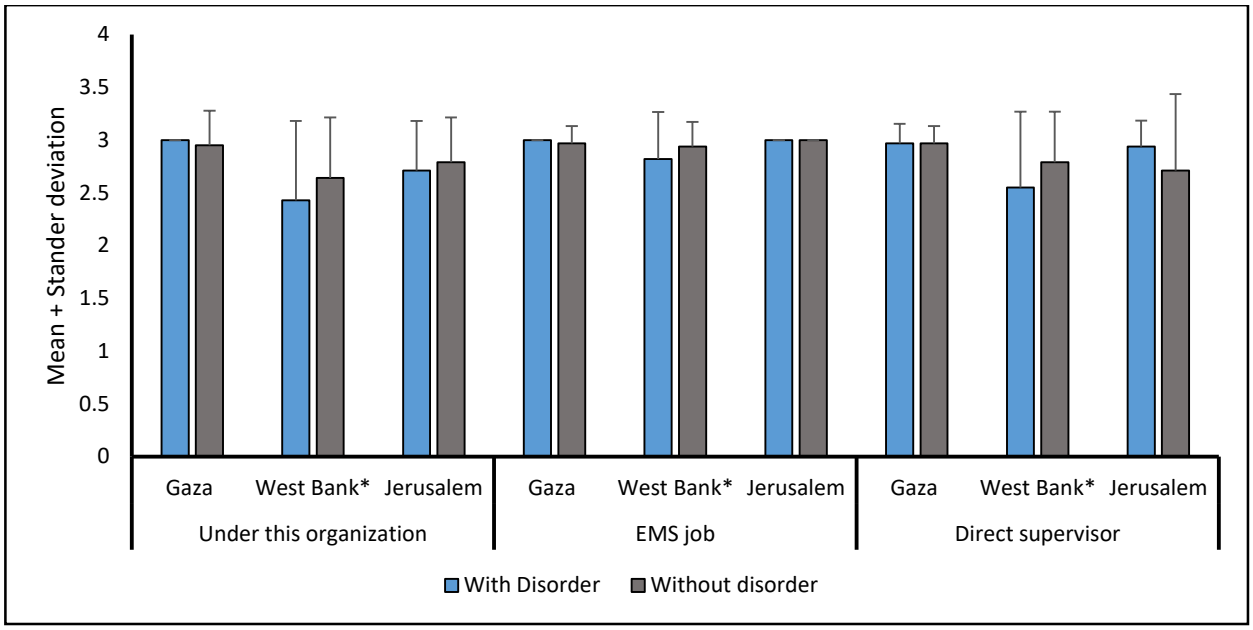


Figure 4.13: Level of Satisfaction of profession due to illness at work according work place, * significant difference of satisfaction level due to ill status at significant level 0.05.

4.6.1.4 Relation between Satisfaction of profession and age

This section displays the result of hypothesis which stating: **"There is no significant relation between profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor) and age"**

Table 4.22 clarifies that there is no significant relation between satisfaction of EMS profession and age (P-value=0.384). Also, there is no significant relation between satisfaction of EMS profession under this organization and age (P-value=0.406), while, there is a significant relation between satisfaction of directed supervisor and age (P-value=0.029).

Table 4.22: Relations between Satisfaction of profession and age

Variables		illness at work					Test statistic (Sig.)
		Less than 30 (N=48)	30-39 (N=89)	40-49 (N=116)	More than 49 (N=51)	Total (N=304)	
Under this organization	Dissatisfied	4.2%	5.6%	6.1%	11.8%	6.6%	6.364 (0.384)
	Neutral	14.6%	19.1%	20.0%	27.5%	20.1%	
	Satisfied	81.2%	75.3%	73.9%	60.8%	73.3%	
EMS profession	Dissatisfied	0.0%	0.0%	0.9%	2.0%	0.7%	5.543 (0.406)
	Neutral	4.2%	4.5%	6.0%	11.8%	6.2%	
	Satisfied	95.8%	95.5%	93.1%	86.3%	93.1%	
Direct supervisor	Dissatisfied	2.1%	7.9%	3.4%	9.8%	5.6%	13.324 (0.029)
	Neutral	8.3%	4.5%	15.5%	17.6%	11.5%	
	Satisfied	89.6%	87.6%	81.0%	72.5%	82.9%	

Figure 4.14 indicates that the level of satisfaction of EMS profession under this organization is high for all age categories, also the level of satisfaction of EMS profession is high for all age categories, and moreover the level of satisfaction of direct supervisor is high also for age categories.

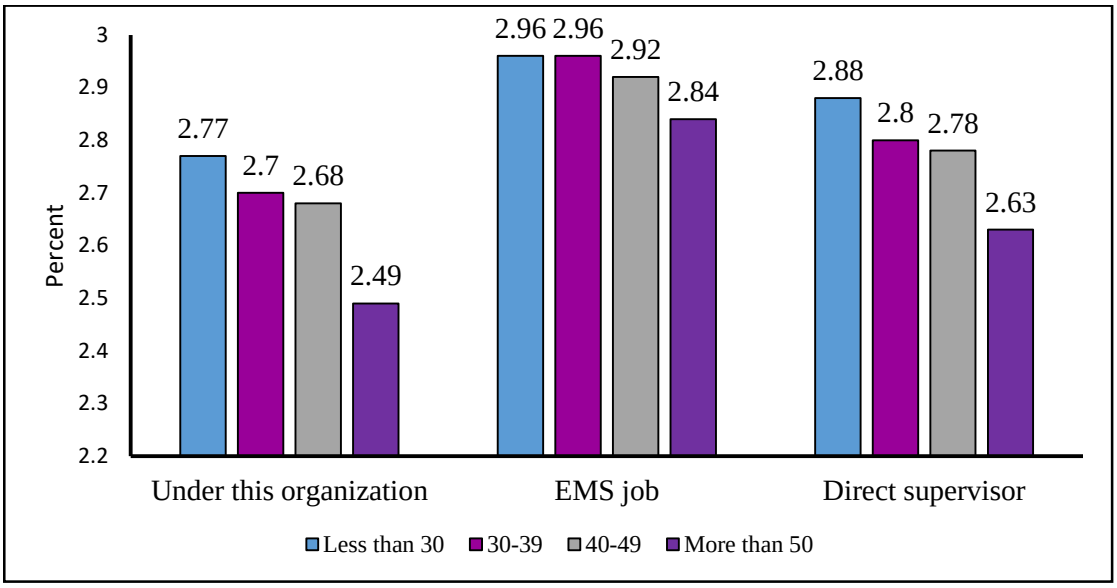


Figure 4.14: Level of Satisfaction of profession by age categories.

4.6.2 Decision of leaving

In this section, the study presents three different hypotheses. In order to show the relation between decision of leaving and work place, work injury, and ill at work, a Fisher test and Chi-square test wasused.

4.6.2.1 Relation between Decision of leaving and work place

This section displays the result of hypothesis which stating: **"There is no significant relation between Decision of leaving (Leave organization, Leave EMS) and work place"**

Table 4.23 clarifies that there is a significant relation between decision of leaving organization and work place (P-value=0.000). However, there is a significant relation between decision of Leaving EMS and place work (P-value=0.001).

Table 4.23: Relations between Decision of leaving and place work

		Work place				**Test statistic (Sig.)**
		Gaza (N=67)	West Bank (N=208)	Jerusalem (N=31)	Total (N=306)	
Leave organization	Definitely will leave	3.0%	3.4%	3.2%	3.3%	**32.239b (0.000)**
	Probably will leave	9.0%	17.8%	29.0%	17.0%	
	Probably will not leave	3.0%	27.9%	29.0%	22.5%	
	Definitely will not leave	85.1%	51.0%	38.7%	57.2%	
Leave EMS	Definitely will leave	1.5%	2.4%	3.2%	2.3%	**23.879a (0.000)**
	Probably will leave	7.5%	13.9%	16.1%	12.7%	
	Probably will not leave	6.0%	27.4%	32.3%	23.2%	
	Definitely will not leave	85.1%	56.3%	48.4%	61.8%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

In addition, figure 4.15 indicates the majority of EMT professions in Gaza definitely will not leave the organization 85.10 %, 51.0% of EMT professions in West Bank definitely will not leave the organization, and 38.7% of EMT professions in Jerusalem will definitely not leave the organization. However, 85.10% of EMT professions in Gaza definitely will not leave EMS, 56.3% of EMT professions in West Bank definitely will not leave the EMS, and 48.4% of EMT professions in Jerusalem will defiantly not leave the EMS.

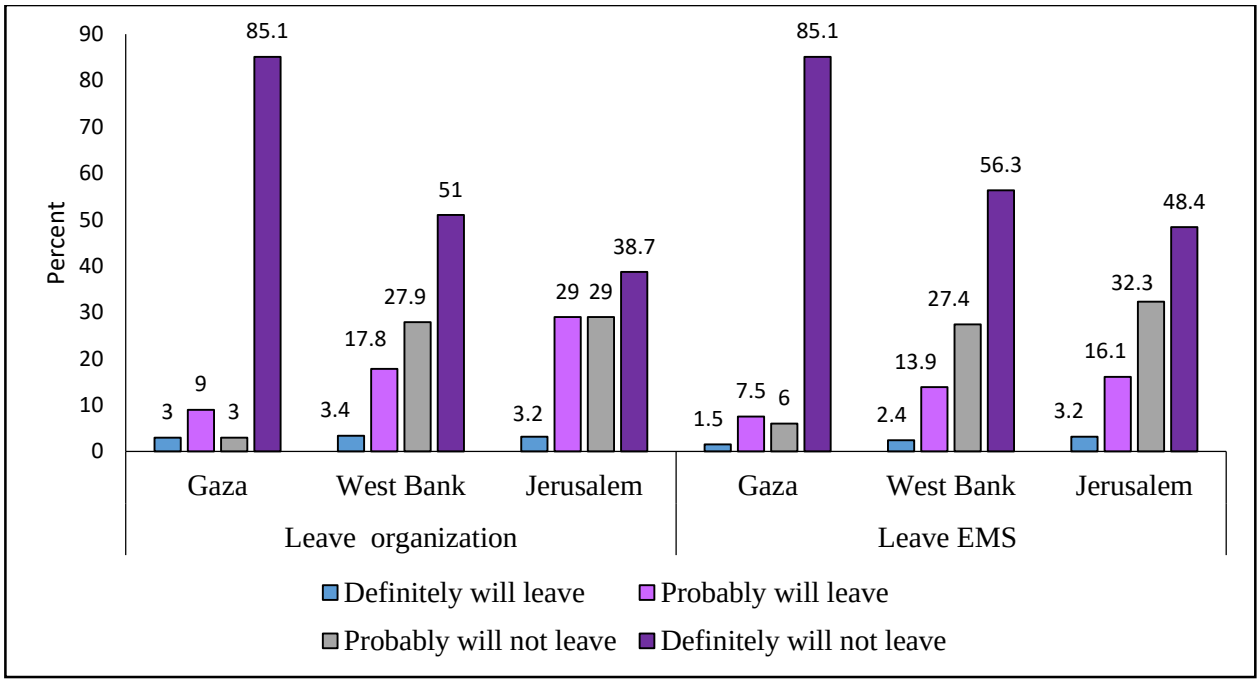


Figure 4.15: sample distribution of leaving Decision according work place

4.6.2.2 Relation between Decision of leaving and work injury

This section displays the result of hypothesis which stating: **"There is no significant relation between Decision of leaving (Leave organization, Leave EMS) and work injury"**

Table 4.24 clarifies that there is no significant relation between decision of leaving organization and work injury (P-value=0.067). However, there is no significant relation between decision of Leaving EMS and work injury (P-value=0.629).

Table 4.24: Relations between Decision of leaving and work injury

		Work Injury		Total (N=306)	Test statistic (Sig.)
		Yes (N=189)	No (N=117)		
Leave organization	Definitely will leave	2.1%	5.1%	3.3%	7.172b (0.067)
	Probably will leave	20.6%	11.1%	17.0%	
	Probably will not leave	20.1%	26.5%	22.5%	
	Definitely will not leave	57.1%	57.3%	57.2%	
Leave EMS	Definitely will leave	1.6%	3.4%	2.3%	1.780b (0.629)
	Probably will leave	12.7%	12.8%	12.7%	
	Probably will not leave	24.9%	20.5%	23.2%	
	Definitely will not leave	60.8%	63.2%	61.8%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

Moreover, figure 4.16 indicate the majority of EMT professions in Gaza definitely will not leave the organization whether they injured or not injured. Most of EMT professions in West Bank definitely will not leave the organization or probably will not leave whether theyinjured or not injured, also EMT professions in Jerusalem definitely will not leave the organization or probably will not leave whether theyinjured or not injured.

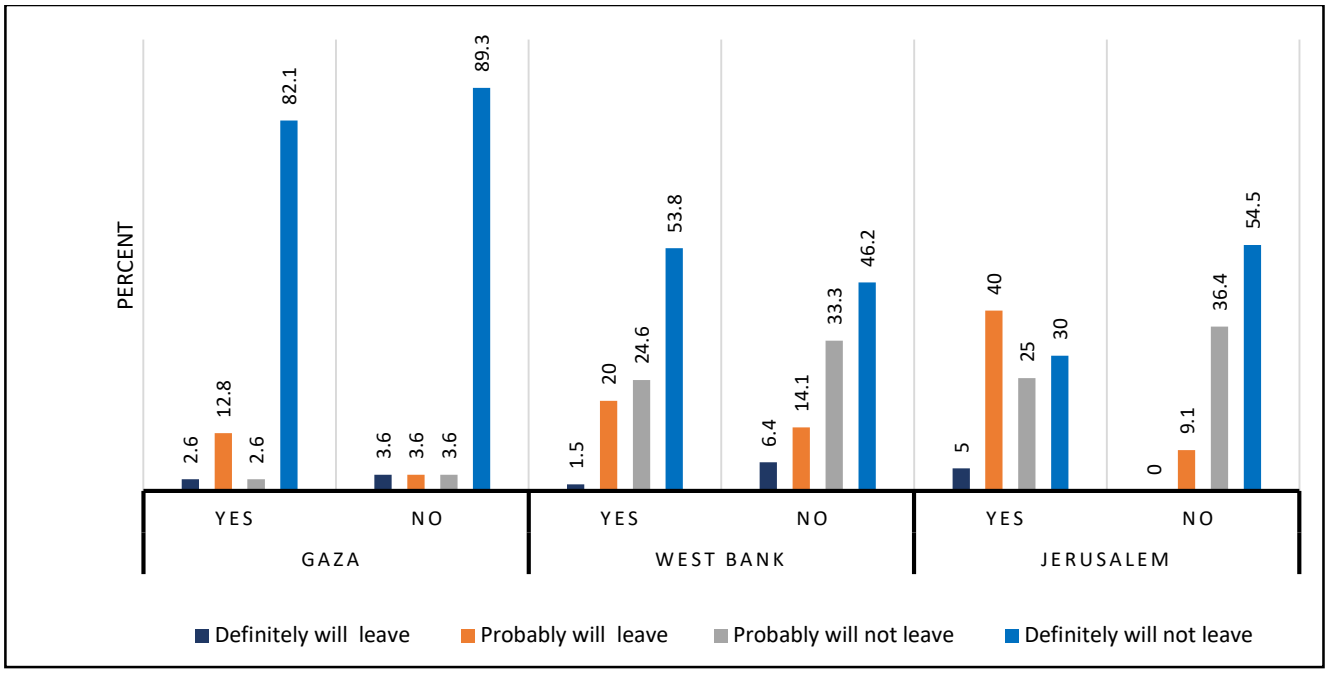


Figure 4.16: sample distribution of leaving Decision due to work injury according work place

4.6.2.3 Relation between Decision of leaving and illness at work

This section displays the result of hypothesis which stating: **"There is no significant relation between Decision of leaving (Leave organization, Leave EMS) and illness at work"**

Table 4.25showsthat there is a significant relation between decision of leaving organization and illness at work (P-value=0.005). However, there is no significant relation between decision of Leaving EMS and illness at work (P-value=0.373).

Table 4.25: Relations between Decision of leaving and illness at work

		Work Injury		Total (N=306)	Test statistic (Sig.)
		Yes (N=189)	No (N=117)		
Leave organization	Definitely will leave	4.6%	2.3%	3.3%	**12.893b (0.005)**
	Probably will leave	20.8%	14.2%	17.0%	
	Probably will not leave	13.1%	29.5%	22.5%	
	Definitely will not leave	61.5%	54.0%	57.2%	
Leave EMS	Definitely will leave	3.8%	1.1%	2.3%	3.109a (0.373)
	Probably will leave	13.8%	11.9%	12.7%	
	Probably will not leave	20.8%	25.0%	23.2%	
	Definitely will not leave	61.5%	61.9%	61.8%	

a Result obtained by Fisher's Test at p-value ≤0.05
b Result obtained by Chi-square Test at p-value ≤0.05
p-value are displayed in bold when p ≤0.05

In addition, figure 4.17 indicatesthat the majority EMT in Gaza definitely will not leave the organization whether they illness or not illness. Most of EMT in West Bank defiantly will not leave the organization or probably will not leave whether theyillness or not illness, also EMT in Jerusalem definitely will not leave the organization or probably will not leave whether theyillness or not illness.

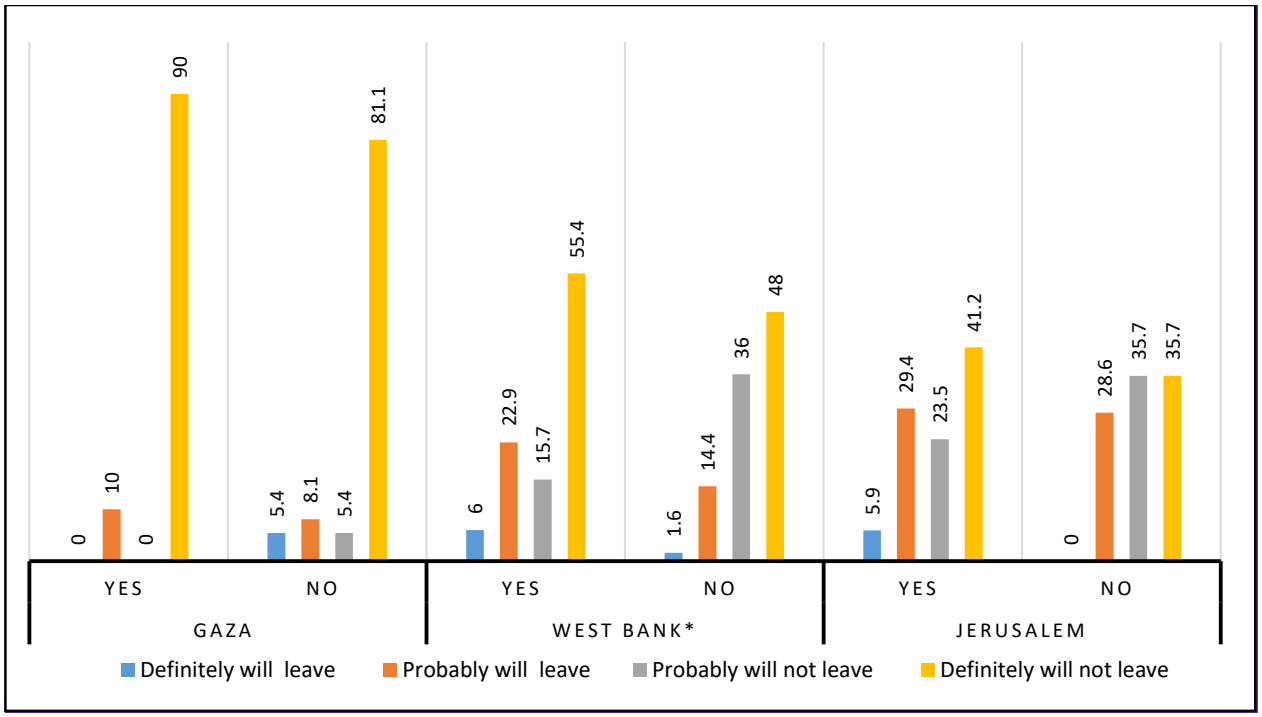


Figure 4.17: sample distribution of leaving Decision due to illness at work according work place

4.6.3 Relation between Decision of leaving and satisfaction of profession

This section displays the result of two hypotheses which stating:

- **There is no significant relation between Decision of leaving the organization and profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor).**
- **There is no significant relation between Decision of leaving EMS profession and profession satisfaction (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor).**

In order to test the hypotheses Fisher test was used. There is a significant relation decision of leaving the organization and profession satisfaction in three dimensions (satisfaction of EMS

profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor). In Gaza area, there is no significant relation decision of leaving the organization and profession satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor). In Jerusalem area, there is no significant relation decision of leaving the organization and profession satisfaction in two dimensions (satisfaction of EMS profession under this organization, satisfaction of direct supervisor), while in satisfaction of EMS profession all employee is satisfied. In West Bank area, there is a significant relation decision of leaving the organization and profession satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor) (see Table 4.26).

In order to test the hypotheses Fisher test was used. There is a significant relation decision of leaving EMS profession and profession satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor). In Gaza area, there is no significant relation decision of leaving EMS profession and profession satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor). In Jerusalem area, there is no significant relation decision of leaving EMS profession and profession satisfaction in two dimensions (satisfaction of EMS profession under this organization, satisfaction of direct supervisor), while in satisfaction of EMS profession all employee is satisfied.In West Bank area, there is a significant relation decision of leaving EMS profession and profession satisfaction in three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor) see Table 4.26.

Table 4.26: Relation between Decision of leaving and satisfaction of profession according work place

Variables		Gaza		West Bank		Jerusalem		Sample	
		Test statistic	Sig	Test statistic	Sig	Test statistic	Sig	Test statistic	Sig
Leave organization	Under this organization	8.96	0.15	26.90	**0.00**	3.79	0.26	30.41	**0.00**
	EMS job	8.96	0.15	15.57	**0.01**	-	-	18.53	**0.00**
	Direct supervisor	5.83	0.28	15.81	**0.01**	6.98	0.43	16.16	**0.01**
		Test statistic	Sig	Test statistic	Sig	Test statistic	Sig	Test statistic	Sig
Leave EMS	Under this organization	9.50	0.15	28.37	**0.00**	2.75	0.58	29.64	**0.00**
	EMS job	9.50	0.15	15.16	**0.01**	-	-	14.30	**0.00**
	Direct supervisor	6.37	0.28	13.73	**0.02**	9.83	0.12	15.45	**0.01**

4.6.4 Factors that affect of leaving decision EMS by logistic regression analysis

Binary logistic regression analysis includes eight variables age; illness at work status; work injury; physiological illness status; physical illness status; satisfaction of EMS job; work place. To study the main effect of the independent variables on the dependent variables which is decision of leaving include two category willing to leave (definitely will leave), and not willing to leave (probably will leave, probably will not leave, definitely will not leave).

Table 4.27shows that there is a statistically significant increaseof not willing to leave amongemployees who not have any physical illness comparedto those who have a physical illness. Also, there is a statistically significant increaseof not willing to leave amongemployees who not satisfied to EMS job comparedto those who satisfied. Moreover, those who were working in Gaza are higher to not willing to leave compared with those who are working in Jerusalem. While, when the employee age increased by one year the probability to not willing to leave EMS jobwill be higher.

Table 4.27: Logistic regression analysis for decision to leaving.

Variables	Number	Sig.	AOR*	AOR CI 95%*	
physical illness		<0.01			
Yes	64	.009	0.483	0.281-0.831	
No	138	1.00			
Satisfaction		<0.10			
Not satisfied		.769	1.523	0.092-25.183	
Neutral	19	.016	3.595	1.274-10.139	
Satisfied	285	1.00			
Work place		<0.01			
Gaza	67	.000	.160	0.057-0.445	
West Bank	208	.567	.793	0.357-1.758	
Jerusalem	31	1.00			
Age		.005	.961	.935	.988
Constant		.006	5.785		

*Adjusted odds ratio. **Confidence interval

4.7 Work injury

In this section, the researcher displays the result of three hypotheses which stating:

1) "**There is no relation between the nature of injury and work place"**

2) **"There is no relation between the source of work injury and work place"**

3) **There is no relation between the event of exposure and work place"**

4.7.1 Relation between the nature of injury and work place

According the result in section 4.4, 61.8% of employee have a work injury, 39employees in Gaza area, 130 employees in West Bank area, and 20 employees in area Jerusalem, 74.6% of participants have a multiple traumatic, 24.3%of them don't have a multiple traumatic.

Participants were asked about 13 nature of work injury which are: spinal trauma, bone trauma, nervous trauma, traumatic injuries to muscles, traumatic injuries to tendons, ligaments, open wounds, surface wounds and bruises, chemical burns and corrosion, heat burns and corrosion, electric burns and corrosion, head injuries, environmental condition, drowning, allergenic or poising. Table 4.28showsthat there is a significant relation between surface wounds and bruises injured and work place (p-value=0.038), furthermore, there is a significant relation between chemical burns and corrosion injured and work place (p-value=0.038), moreover, the result indicates that Gaza employee get most injured of surface wounds and bruises injured and open wounds injured.

Table 4.28: Relation between the nature of injury and work place

Nature of injury		Gaza (N=39)	West Bank (N=130)	Jerusalem (N=20)	Total (N=189)	Test statistic (Sig.)
Spinal trauma	Yes	10.3%	19.2%	5.0%	15.9%	3.790
	No	89.7%	80.8%	95.0%	84.1%	(0.150)
Bone trauma	Yes	38.5%	31.5%	40.0%	33.9%	1.018
	No	61.5%	68.5%	60.0%	66.1%	(0.601)
Nervous trauma	Yes	17.9%	6.9%	10.0%	9.5%	4.146
	No	82.1%	93.1%	90.0%	90.5%	(0.120)
Traumatic injuries to muscles	Yes	43.6%	60.0%	60.0%	56.6%	3.394
	No	56.4%	40.0%	40.0%	43.4%	(0.183)
Traumatic injuries to tendons, ligaments	Yes	30.8%	31.8%	45.0%	33.0%	1.477
	No	69.2%	68.2%	55.0%	67.0%	(0.478)
Open wounds	Yes	41.0%	24.8%	40.0%	29.8%	4.883
	No	59.0%	75.2%	60.0%	70.2%	(0.087)
Surface wounds and bruises	Yes	79.5%	50.8%	50.0%	56.6%	**5.841**
	No	20.5%	49.2%	50.0%	43.4%	**(0.038)**
Chemical burns and corrosion	Yes	10.3%	1.6%	0.0%	3.2%	**5.841**
	No	89.7%	98.4%	100.0%	96.8%	**(0.037)**
Heat Burns and corrosion	Yes	23.1%	10.1%	10.0%	12.8%	4.307
	No	76.9%	89.9%	90.0%	87.2%	(0.113)
Electric burns and corrosion	Yes	7.7%	1.5%	0.0%	2.6%	3.784
	No	92.3%	98.5%	100.0%	97.4%	(0.149)
Head injuries	Yes	21.1%	12.7%	5.0%	13.6%	3.145
	No	78.9%	87.3%	95.0%	86.4%	(0.208)
Environmental condition	Yes	15.4%	17.1%	15.0%	16.5%	0.097
	No	84.6%	82.9%	85.0%	83.5%	(0.953)

Drowning, allergenicor Poising	Yes	15.4%	11.5%	5.0%	11.6%	1.204 (0.543)
	No	84.6%	88.5%	95.0%	88.4%	

Figure 4.18showsthat the highest percent of Gaza injured participants have surface wounds and bruises (79.5%), followed by traumatic injuries to muscles (43.6%), while the lowest percent of electric burns and corrosion (7.7%). For West Bank injured participants have traumatic injuries to muscles (60%), followed by surface wounds and bruises (50.8%), while the lowest percent of electric burns and corrosion (1.5%). However, Jerusalem injured participants have traumatic injuries to muscles (60%), followed by surface wounds and bruises (50%), while no one has an electric burns and corrosion and chemical burns and corrosion.

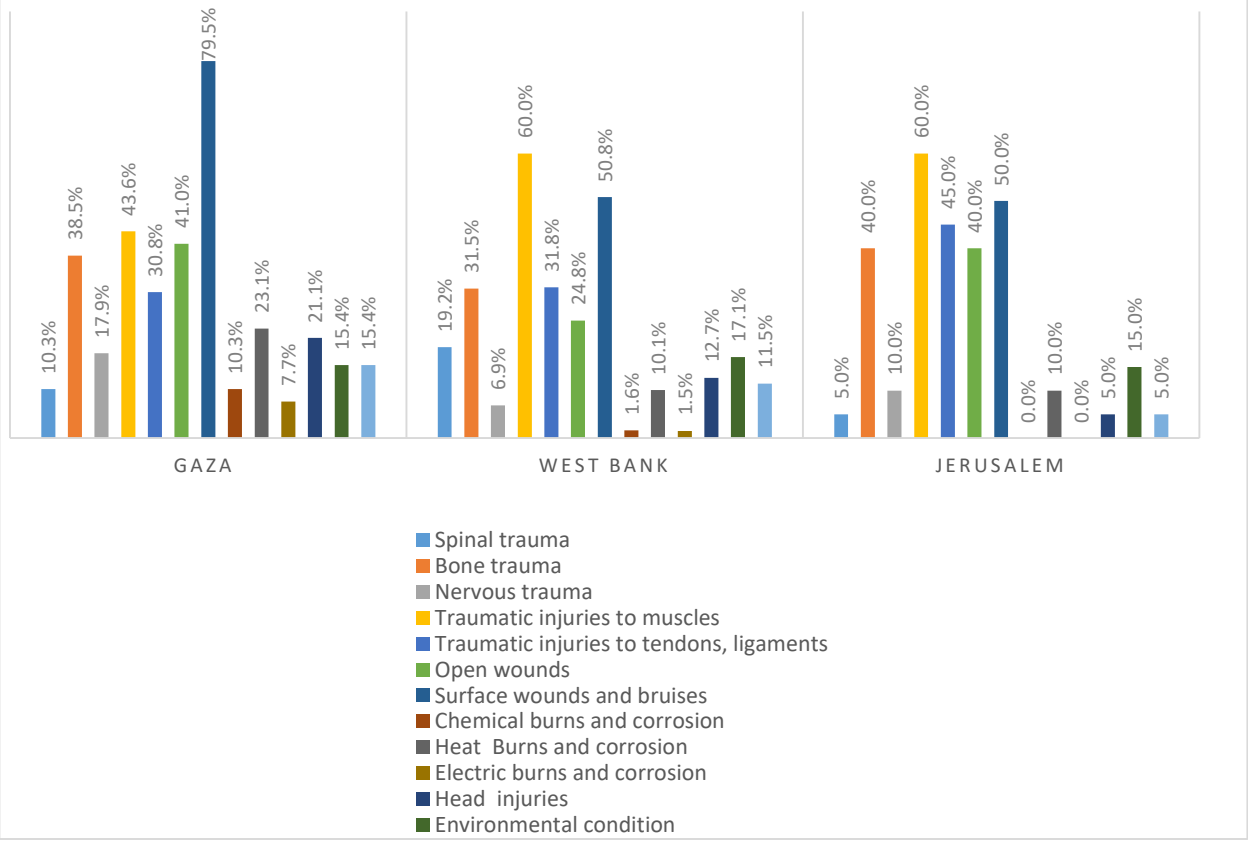


Figure 4.18: Distributions of Injured participants by nature of injury

4.7.2 Relation between the source of work injury and work place

Table 4.29showsthat there is a significant relation between person injury source and work place (p-value=0.019), furthermore, there is a significant relation betweenambulance equipment source and work place (p-value=0.08), moreover, the result indicates that Jerusalem employee were the most injured bystructures and surfaces on the scene followed by weight of ambulance equipment source andperson source.

Table 4.29: Relation between source of work injury and work place

Source of work injury		**Gaza (N=39)**	**West Bank (N=130)**	**Jerusalem (N=20)**	**Total (N=189)**	**Test statistic (Sig.)**
Chemical	Yes	17.9%	6.9%	15.8%	10.1%	5.010 (0.076)
	No	82.1%	93.1%	84.2%	89.9%	
Ambulance equipment	Yes	28.2%	45.7%	55.0%	43.1%	5.049 (0.08)
	No	71.8%	54.3%	45.0%	56.9%	
Weight of ambulance equipment	Yes	23.7%	35.4%	35.0%	33.0%	1.863 (0.394)
	No	76.3%	64.6%	65.0%	67.0%	
Vehicle and mobile equipment	Yes	25.6%	37.2%	40.0%	35.1%	1.994 (0.369)
	No	74.4%	62.8%	60.0%	64.9%	
Vehicle serine of ambulance	Yes	5.1%	6.9%	5.0%	6.3%	0.145 (1.000)
	No	94.9%	93.1%	95.0%	93.7%	
Person	Yes	21.1%	27.9%	55.0%	29.4%	**7.727 (0.019)**
	No	78.9%	72.1%	45.0%	70.6%	
structures and surfaces on the scene	Yes	69.2%	66.4%	65.0%	66.8%	0.142 (0.931)
	No	30.8%	33.6%	35.0%	33.2%	
Ambulance flash lights	Yes	5.3%	4.7%	15.0%	5.9%	3.219

	No	94.7%	95.3%	85.0%	94.1%	(0.203)
Street night lights	Yes	10.3%	5.4%	5.0%	6.3%	1.405 (0.459)
	No	89.7%	94.6%	95.0%	93.7%	
Blood fluid	Yes	2.6%	0.8%	0.0%	1.1%	1.652 (0.530)
	No	97.4%	99.2%	100.0%	98.9%	
Plant	Yes	2.6%	0.8%	0.0%	1.1%	1.666 (0.521)
	No	97.4%	99.2%	100.0%	98.9%	
Unknown element condition	Yes	23.1%	28.5%	30.0%	27.5%	1.666 (0.521)
	No	76.9%	71.5%	70.0%	72.5%	

Figure 4.19showsthat in Gaza the highest percent of injury participant's sources is structures and surfaces on the scene (69.2%), followed by ambulance equipment (28.2%), while the lowest percent of blood fluid and plant (2.6%). For West Bank the highest percent of injury participant's sources is structures and surfaces on the scene (66.4%), followed by ambulance equipment (45.7%), while the lowest percent of blood fluid and plant (0.8%). However, in Jerusalem area the highest percent of injury participant's sources is structures and surfaces on the scene (65%), followed by ambulance equipment and person with (55%), while the lowest percent of blood fluid and plant (0%).

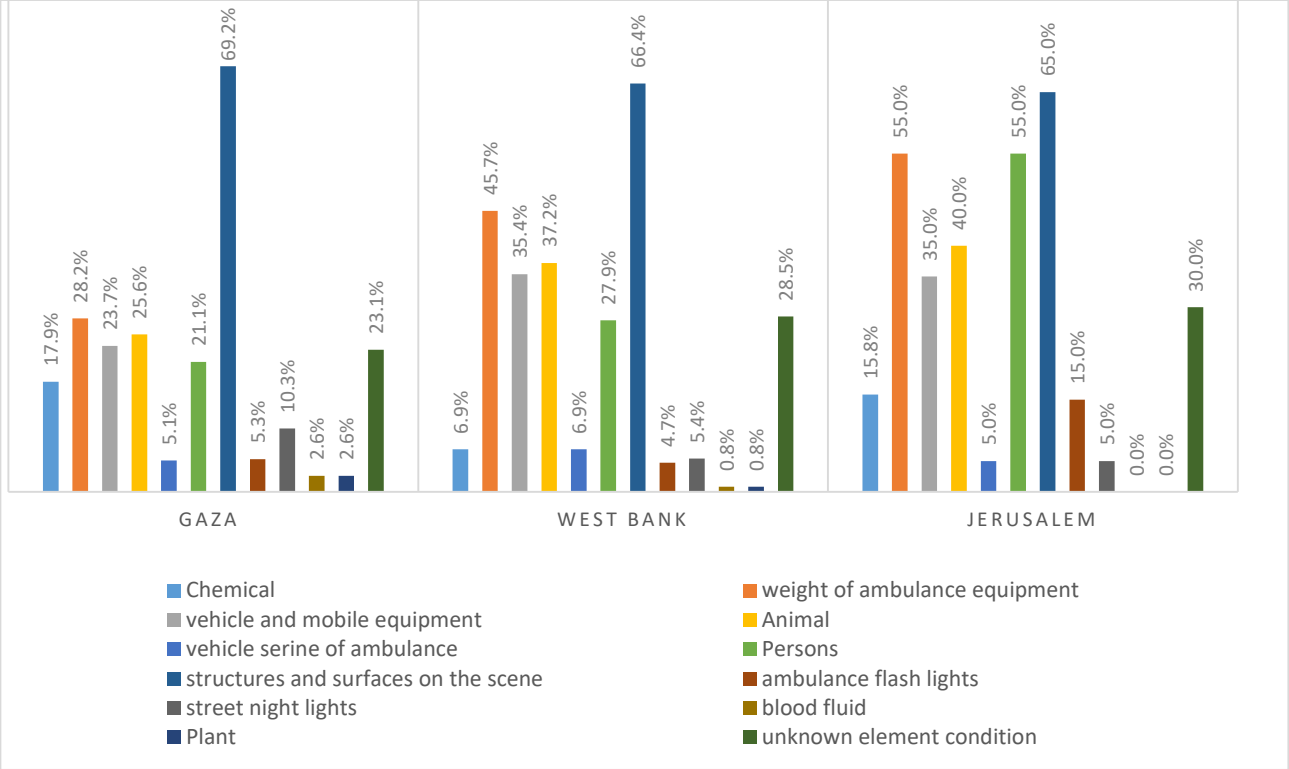


Figure 4.19: Distributions of Injured participants by source of work injury

4.7.3 Relation between the event of exposure injury and work place

Table 4.30showsthat there is a significant relation between injury by fire and explosions and work place (p-value=0.027), furthermore, there is a significant relation between injury by moving and transfer patients and work place (p-value=0.007).

Table 4.30: Relation between event of exposure injury and work place

Event of Exposure injury		Gaza (N=39)	West Bank (N=130)	Jerusalem (N=20)	Total (N=189)	Test statistic (Sig.)
Civil situation	Yes	10.3%	13.8%	5.0%	12.2%	1.028
	No	89.7%	86.2%	95.0%	87.8%	(0.617)
Military (Israeli army) situation	Yes	50.0%	47.3%	65.0%	49.7%	2.175
	No	50.0%	52.7%	35.0%	50.3%	(0.337)
Transportation accident	Yes	15.4%	20.0%	15.0%	18.5%	0.607
	No	84.6%	80.0%	85.0%	81.5%	(0.736)
Fire and Explosions	Yes	25.6%	9.4%	10.0%	12.8%	7.231
	No	74.4%	90.6%	90.0%	87.2%	(0.027)
harmful substances	Yes	23.1%	40.6%	35.0%	36.4%	3.996
	No	76.9%	59.4%	65.0%	63.6%	(0.136)
Falls, Slip, Trips	Yes	7.7%	16.4%	30.0%	16.0%	4.924
	No	92.3%	83.6%	70.0%	84.0%	(0.085)
Moving and transfer patients	Yes	43.6%	62.3%	85.0%	60.8%	9.889
	No	56.4%	37.7%	15.0%	39.2%	(0.007)
Using ambulance equipment	Yes	20.5%	36.2%	40.0%	33.3%	3.750
	No	79.5%	63.8%	60.0%	66.7%	(0.153)
Fatigue with stressful event	Yes	41.0%	26.9%	20.0%	29.1%	3.790
	No	59.0%	73.1%	80.0%	70.9%	(0.150)
During continuous of work time	Yes	28.2%	23.8%	5.0%	22.8%	4.335
	No	71.8%	76.2%	95.0%	77.2%	(0.114)

Figure 4.20showsthat the highest percent of Gaza injured participant's exposure is military (Israeli army) situation (50%), followed by moving and transfer patients (43.6%), while the lowest percent of fall, slip, trips(7.7%). For West Bank the highest percent of injured participant's exposure is moving and transfer patients (62.3%), followed by (Israeli army)

situation (47.3%), while the lowest percent of fire and explosions (9.3%). However, in Jerusalem area the highest percent of injured participant's exposure is moving and transfer patients (85%), followed by (Israeli army) situation (65%), while the lowest percent of during continuous of work time (5%).

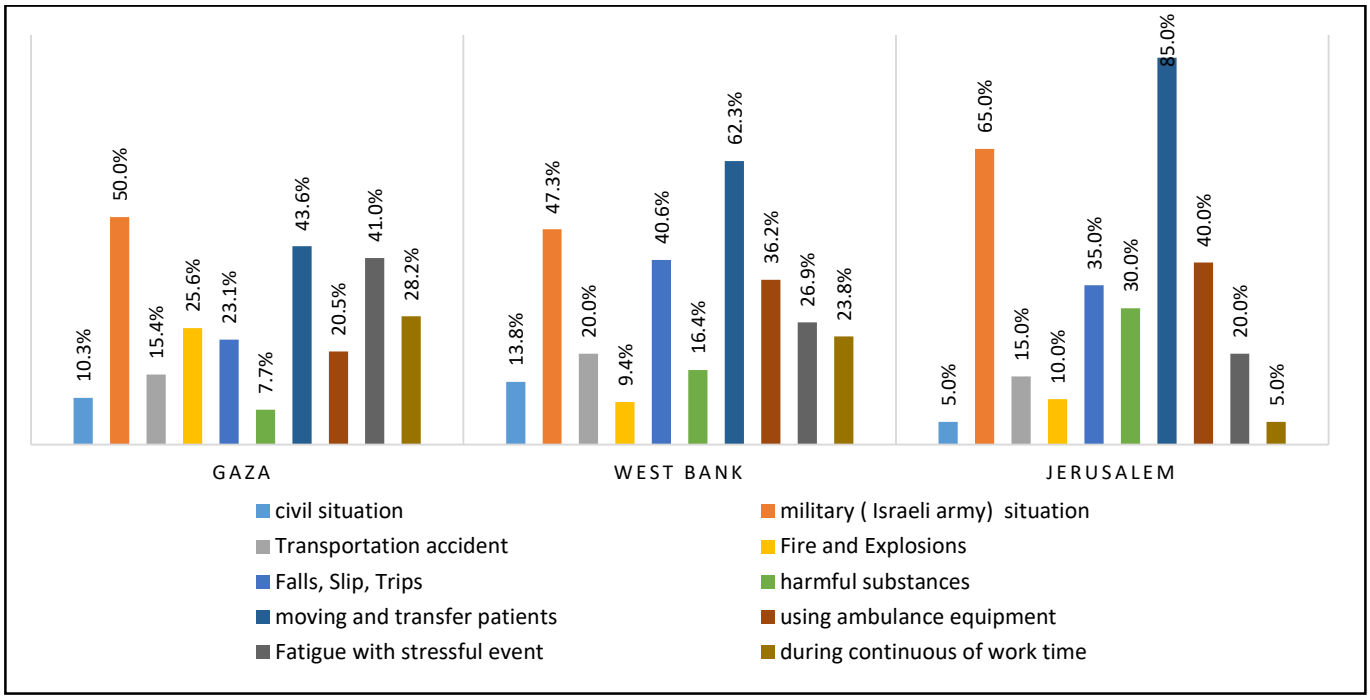


Figure 4.20: Distributions of Injured participants by event of exposure injury

Figure 4.21showsthat the 57.1% of injured participants don't get any holidays, 23.8% of them get between day to five days, 2.2% of them get more than fifteen days.

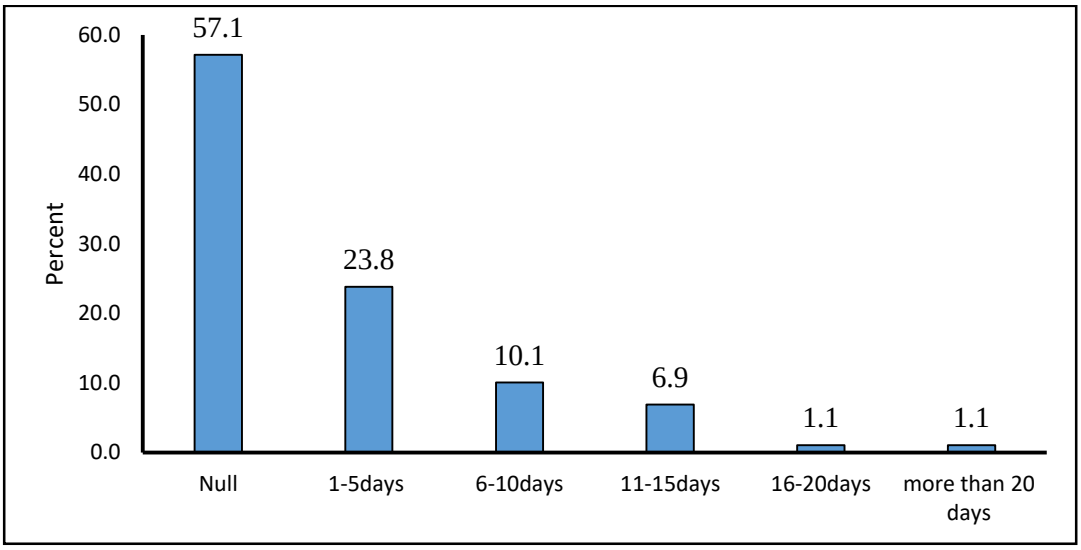


Figure 4.21: Distributions of Injured participants by absent days

4.8 Illness at work

In this section, the researcher displays the result of three hypotheses which stating:

4) "**There is no relation between the nature of ill and work place"**

5) "There is no relation between the source of ill at work and work place"

6) "There is no relation between the event of exposure ill and work place"

4.8.1 Relation between the nature of ill and work place

According the result in section 4.4, 42.5% of employees have an illness at work, 17 employees in Jerusalem area, 83 employees in west bank area, and 30 employees in Gaza area. Participants were asked about 12 natures of ill which is: heart, hypertension, arteries,

arterioles, capillaries, diabetes, respiratory system, digestive system, genitourinary system, musculoskeletal system, skin, subcutaneous tissue, Endocrine, nutritional, metabolic, and immunity. Table 4.31 illustrate that there is a significant relation between heart illness and work place (p-value=0.046), moreover, the result indicates that west bank employee the most illnessof heart problem.

Table 4.31: Relation between the nature of ill and work place

Nature of ill		**Gaza (N=30)**	**West Bank (N=83)**	**Jerusalem (N=17)**	**Total (N=130)**	**Test statistic (Sig.)**
Hearing	Yes	20.0%	20.5%	5.9%	18.5%	2.059 (0.357)
	No	80.0%	79.5%	94.1%	81.5%	
eye, vision	Yes	26.7%	26.5%	41.2%	28.5%	1.553 (0.460)
	No	73.3%	73.5%	58.8%	71.5%	
Heart	Yes	0.0%	13.3%	17.6%	10.8%	5.812 (0.046)
	No	100.0%	86.7%	82.4%	89.2%	
Hypertension	Yes	10.0%	12.0%	11.8%	11.5%	0.168 (1.000)
	No	90.0%	88.0%	88.2%	88.5%	
arteries, arterioles, capillaries	Yes	23.3%	28.8%	17.6%	26.0%	0.887 (0.639)
	No	76.7%	71.2%	82.4%	74.0%	
Diabetes	Yes	0.0%	9.6%	5.9%	6.9%	3.006 (0.212)
	No	100.0%	90.4%	94.1%	93.1%	
Respiratory system	Yes	43.3%	32.9%	52.9%	38.0%	2.869 (0.238)
	No	56.7%	67.1%	47.1%	62.0%	
digestive system	Yes	16.7%	9.8%	5.9%	10.9%	1.449 (0.496)
	No	83.3%	90.2%	94.1%	89.1%	
genitourinary system	Yes	23.3%	10.8%	11.8%	13.8%	2.849 (0.264)
	No	76.7%	89.2%	88.2%	86.2%	

musculoskeletal system	Yes	20.0%	13.3%	17.6%	15.4%	1.108 (0.634)
	No	80.0%	86.7%	82.4%	84.6%	
skin, subcutaneous tissue	Yes	10.0%	12.0%	5.9%	10.8%	0.357 (0.918)
	No	90.0%	88.0%	94.1%	89.2%	
Endocrine, nutritional, metabolic, and immunity	Yes	3.3%	2.4%	5.9%	3.1%	1.321 (0.596)
	No	96.7%	97.6%	94.1%	96.9%	

Figure 4.22showsthat the highest percent of Gaza illnessparticipants have respiratory systemillness (43.3%), followed by eye, vision (26.7%). For WestBank illnessparticipants have respiratory systemillness (32.9%), followed by arteries, arterioles, capillaries (28.8%). However, Jerusalem illnessparticipants have respiratory system illness (52.9%), followed by eye, vision (41.2%).

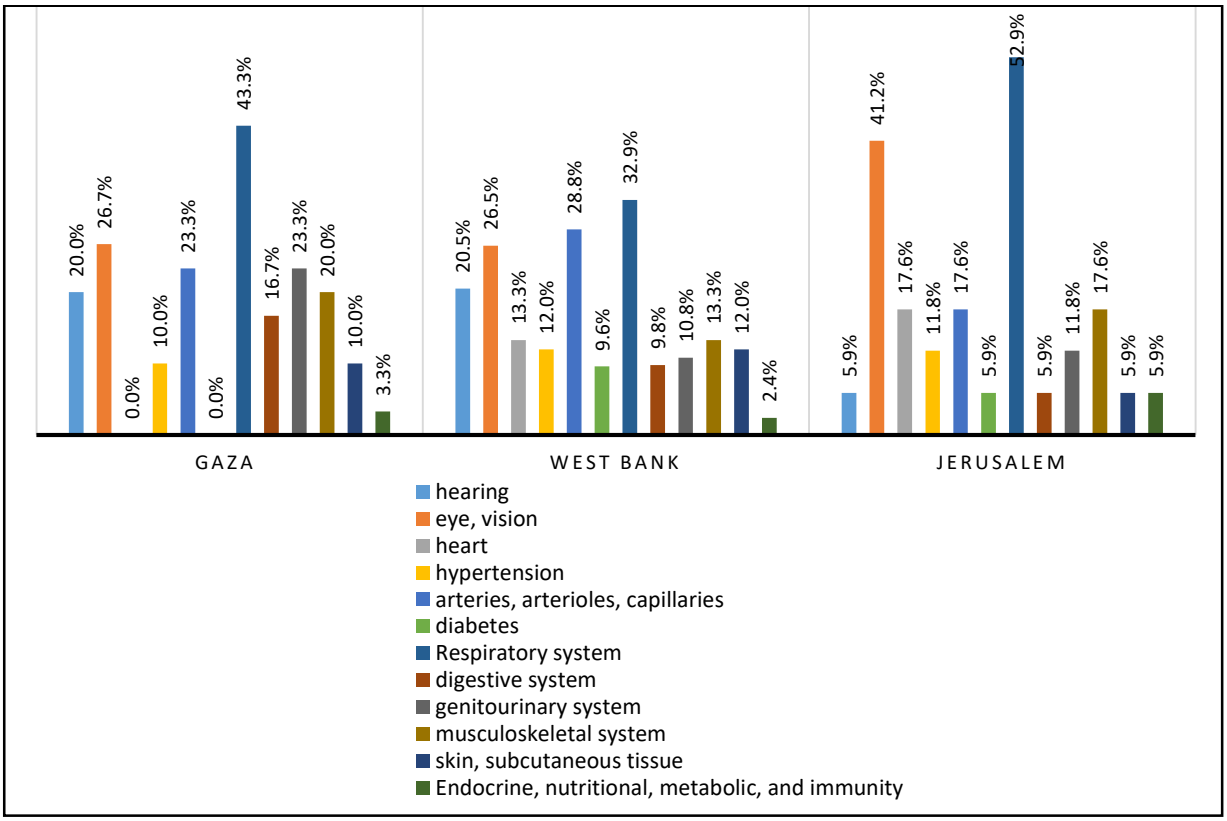


Figure 4.22: Distributions of ill participants by nature of ill

4.8.2 Relation between the source of work ill and work place

Table 4.32showsthat there is a significant relation between person as a source ofillnessand work place (p-value=0.033), furthermore, there is a significant relation between ambulance equipment source and work place (p-value=0.003).Moreover, the result indicates that Jerusalem employee were the most exposedby person source and ambulance equipment source of illness.

Table 4.32: Relation between source of illness at and work place

Source of illness at work		**Gaza (N=30)**	**West Bank (N=83)**	**Jerusalem (N=17)**	**Total (N=130)**	**Test statistic (Sig.)**
Chemical	Yes	23.3%	8.4%	18.8%	13.2%	4.944 (0.073)
	No	76.7%	91.6%	81.2%	86.8%	
Ambulance equipment	Yes	6.7%	37.3%	47.1%	31.5%	**11.790 (0.003)**
	No	93.3%	62.7%	52.9%	68.5%	
Weight of ambulance equipment	Yes	20.7%	36.1%	35.3%	32.6%	2.405 (0.301)
	No	79.3%	63.9%	64.7%	67.4%	
Vehicle and mobile equipment	Yes	26.7%	30.1%	29.4%	29.2%	0.127 (0.938)
	No	73.3%	69.9%	70.6%	70.8%	
Vehicle serine of ambulance	Yes	6.7%	18.1%	5.9%	13.8%	2.872 (0.243)
	No	93.3%	81.9%	94.1%	86.2%	
Persons	Yes	20.0%	24.4%	52.9%	27.1%	**6.811 (0.033)**
	No	80.0%	75.6%	47.1%	72.9%	
structures and surfaces on the scene	Yes	76.7%	61.4%	58.8%	64.6%	2.520 (0.284)
	No	23.3%	38.6%	41.2%	35.4%	
Ambulance flash lights	Yes	6.9%	13.3%	23.5%	13.2%	2.532 (0.292)
	No	93.1%	86.7%	76.5%	86.8%	

Street night lights	Yes	13.3%	9.6%	11.8%	10.8%	0.622 (0.765)
	No	86.7%	90.4%	88.2%	89.2%	
Blood fluid	Yes	3.3%	1.2%	0.0%	1.6%	1.294 (0.615)
	No	96.7%	98.8%	100.0%	98.4%	
Plant	Yes	3.3%	0.0%	0.0%	0.8%	1.294 (0.615)
	No	96.7%	100.0%	100.0%	99.2%	
Unknown element condition	Yes	16.7%	28.9%	29.4%	26.2%	1.819 (0.403)
	No	83.3%	71.1%	70.6%	73.8%	

Figure 4.23showsthat the highest percent of Gaza ill participant's sources arestructures and surfaces on the scene (76.7%), followed by Vehicle and mobile equipment (23.3%). For West Bank the highest percent of ill participant's sources is structures and surfaces on the scene (61.4%), followed by ambulance equipment (37.3). However, in Jerusalem area the highest percent of ill participant's sources arestructures and surfaces on the scene (58.8%), followed by person (52.9%).

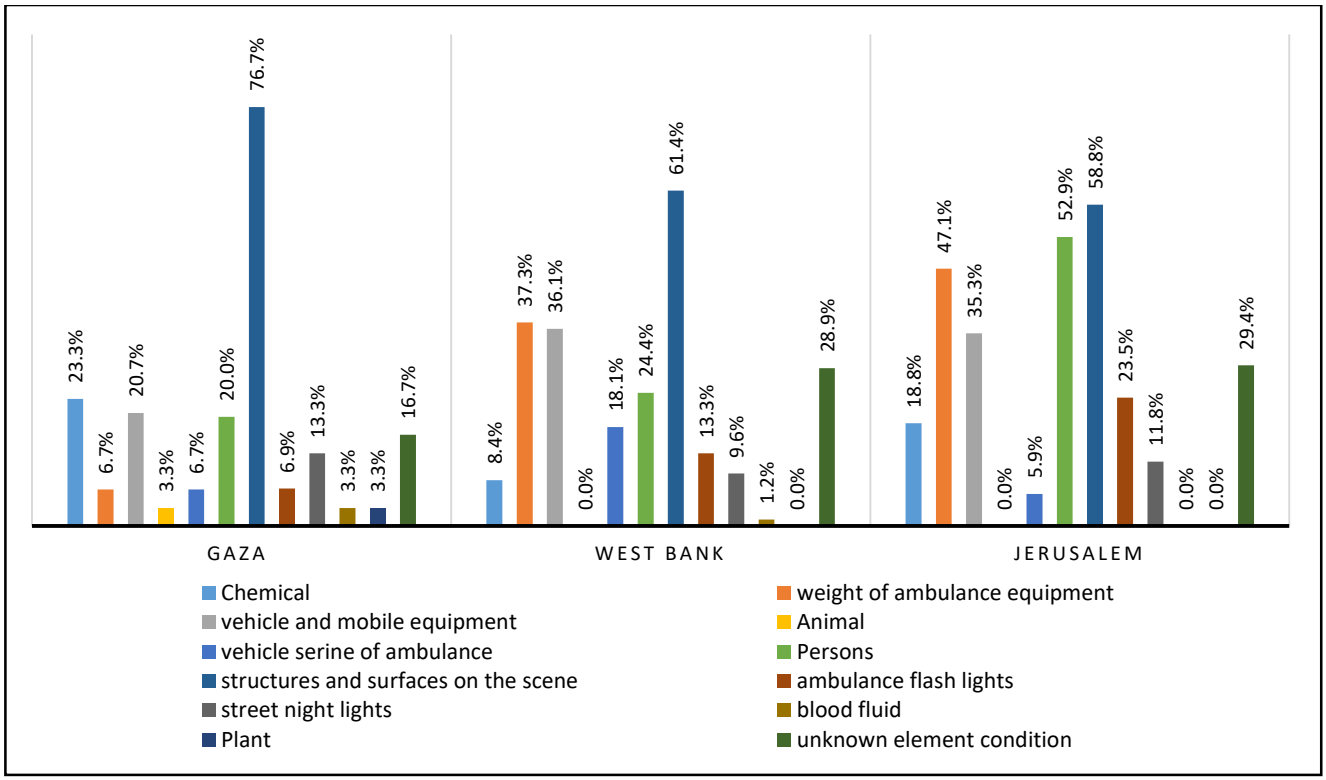


Figure 4.23: Distributions of ill participants according source of ill at work

4.8.3 Relation between the event of exposure of illness and work place

Table 4.33showsthat there is a significant relation between ill by moving and transfer patients and work place (p-value=0.000), furthermore, there is a significant relation between illness during continuous of work time and work place (p-value=0.014).

Table 4.33: Relation between event of exposure illness and work place

Event of Exposure illness		Gaza (N=30)	West Bank (N=83)	Jerusalem (N=17)	Total (N=130)	Test statistic (Sig.)
Civil situation	Yes	10.0%	16.9%	5.9%	13.8%	1.457 (0.526)
	No	90.0%	83.1%	94.1%	86.2%	
Military (Israeli army) situation	Yes	66.7%	45.8%	64.7%	53.1%	4.921 (0.085)
	No	33.3%	54.2%	35.3%	46.9%	
Transportation accident	Yes	16.7%	19.5%	11.8%	17.8%	0.613 (0.736)
	No	83.3%	80.5%	88.2%	82.2%	
Fire and Explosions	Yes	26.7%	12.0%	11.8%	15.4%	3.535 (0.177)
	No	73.3%	88.0%	88.2%	84.6%	
Falls, Slip, Trips	Yes	20.0%	37.3%	35.3%	33.1%	3.040 (0.219)
	No	80.0%	62.7%	64.7%	66.9%	
Harmful substances	Yes	13.3%	17.3%	29.4%	18.0%	1.973 (0.392)
	No	86.7%	82.7%	70.6%	82.0%	
Moving and transfer patients	Yes	30.0%	65.1%	82.4%	59.2%	**15.255 (0.000)**
	No	70.0%	34.9%	17.6%	40.8%	
Using ambulance equipment	Yes	20.0%	30.1%	37.5%	28.7%	1.833 (0.398)
	No	80.0%	69.9%	62.5%	71.3%	
Fatigue with stressful event	Yes	43.3%	36.1%	17.6%	35.4%	3.189 (0.189)
	No	56.7%	63.9%	82.4%	64.6%	
During continuous of work time	Yes	30.0%	42.2%	5.9%	34.6%	8.579 (0.014)
	No	70.0%	57.8%	94.1%	65.4%	

Figure 4.24showsthat the highest percent of Gaza illness participant's exposure is military (Israeli army) situation (66.7%), followed by fatigue with stressful event (43.3%). For West

Bank the highest percent of illness participant's moving and transfer patients (65.1%), followed by exposure is (Israeli army) situation (45.8%). However, in Jerusalem area the highest percent of illness participant's moving and transfer patients (82.4%), followed by exposure is (Israeli army) situation (64.7%).

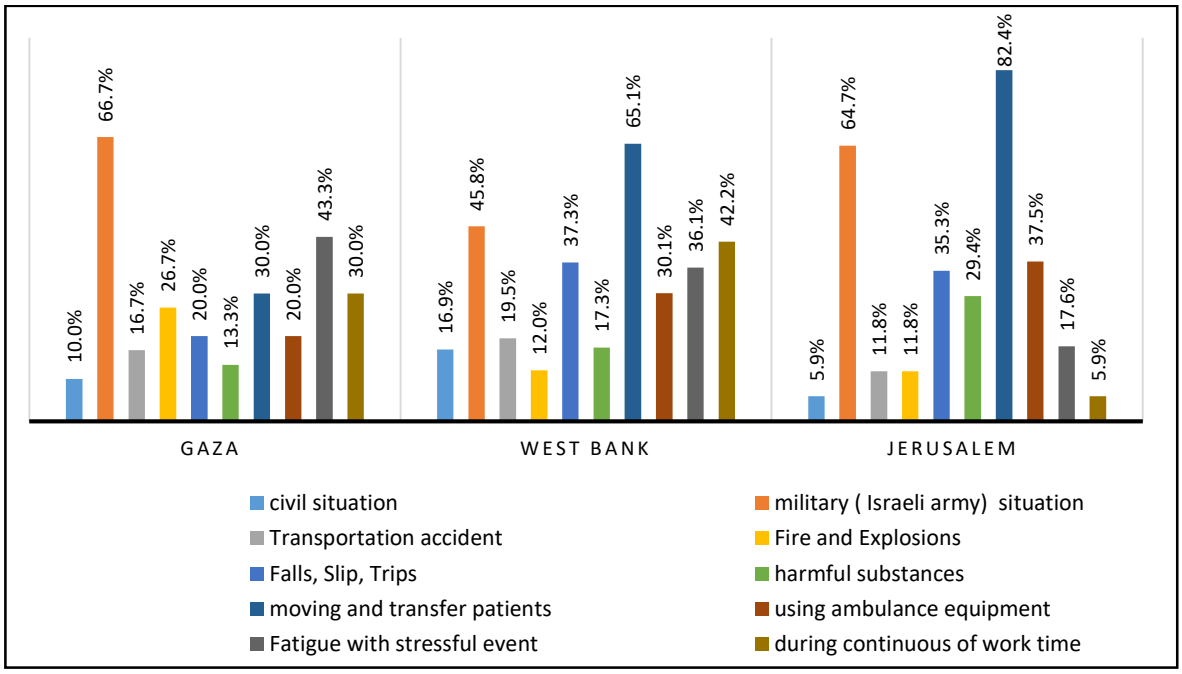


Figure 4.24: Distributions of illness participants according event of exposure illness

Figure 4.25showsthat the 36.9% of ill participants don’t get any holidays, 23.8% of them get between day to five days, 5.4% of them get more than twenty days.

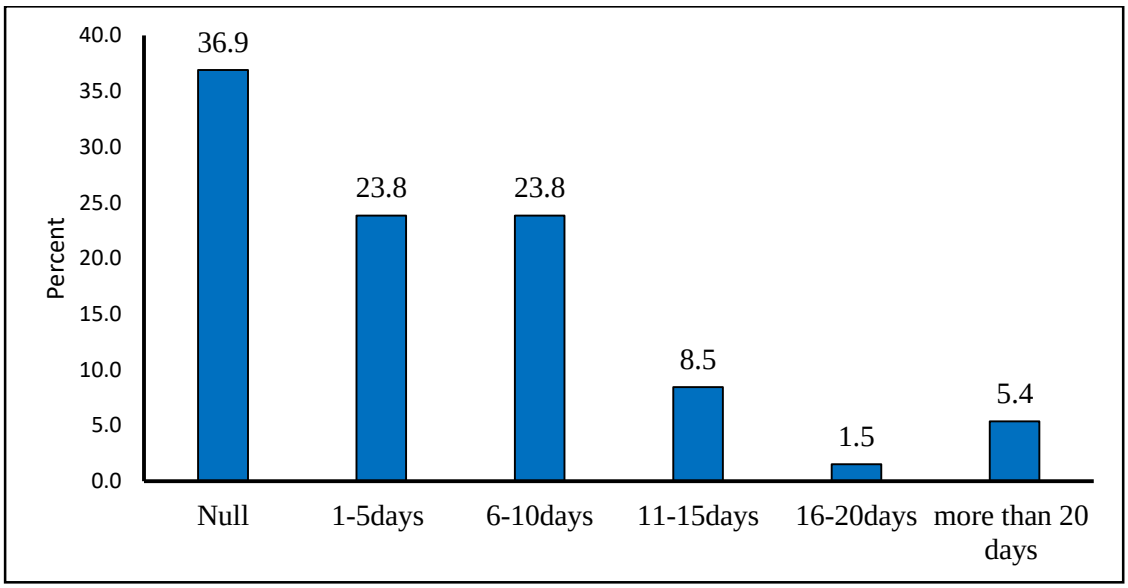


Figure 4.25: Distributions of illness participants by absent days

4.9Organization System

Tables 4.34showsthat 9.6% of respondents were working in different organization as EMS professions, 49.5% of respondents said that there the organizations provide a self-protection substance and material, 50.3% of respondents said that their organization take them a time for rest during the shifts. Also, the participants were asked if their organizations force them to work and be there at your scheduled shifts if they have any illness or injury, 65.8% of respondents said no, 14.8% of them said some times.

Table 4.34: Organization System

Variable	Classifications	Percent %
Working as EMS in different agencies/organizations	**Yes**	9.6
	No	90.4
	Total	100.0
The organizations provide a self-protection substance and material	Yes	49.5
	No	50.5
	Total	100.0
There a time for rest during the shifts	**Yes**	50.3
	No	49.7
	Total	100.0
In case you have been illness or injured of something, Did your organizations force you to work and be there at your scheduled shifts	**Yes**	19.4
	No	65.8
	Sometimes	14.8
	Total	100.0

Chapter five

Discussion

In this chapter the researcher will demonstrated the research discussion in 8 section that will serve the 3 main goals of this study.

Those 8 sections will be 1.social-economic demographic, 2.occupational health, 3.functional variables,4.difficulties that faced EMS professionals, 5.organization System, 6.satisfaction 7.decision of leaving and 8. health status of these worker.
These8 sections were established to help to recognize the effect of each variable on health, according to the framework that was construct to understand the relationship between the independent and dependent variables.

5.1 Socio- economic demographic

This section will include ‘gender, age, marital status’ focusing on the significant factor of these variables on health status among the EMS worker.

In this study, males composed of 90.2% of the total study population, while the remaining (9.8%) were females (11.9%inGaza and 10.6% in West Bank, and none in Jerusalem). Less participation of females in EMS is related to Socio-cultural issues. According to previous studies gender has a lower life time expectancy thanmen.Therefore with 90.2% males of this study , itcould have the same effect (Rosie & Neall, 2018). Also previous studies illustrated a high number of non-fatal injuries and 75% greater odds of patient-related burnout among men(Amy Ferketich et al., 2018). While, globally a randomly measured of self-reported health status had shown that women have higher medical care service utilization and higher associated chargesthan their male counterparts (Bertakis et al., 2000) that have not been shown in the study.

So by gender those major health problems effecting the worker in Palestine, could be significant to study and care of, especially with our culture that will not get along with female work in this type of work as itneeds strength and hard scene event to deal with and work in night shifts and inlate hours.

Our findings show that the age of participantsin Jerusalem is younger than 30 years 41.9%, while in Gaza and West Bank the percentage of older age is higher 57.6% and 35.8% between the age of 40 to 49 years old.

According to previous studies,the age in many studies shows thatolder age effect on health and reducesthe physical ability and mental status and declinesthe clinical physical health. In this study health effect will not be shown because of the major group of population is under 50 years around, 83.2% of the workers.They are young,as they are livingin a young society as Palestine and they do have good physical abilities to give for more years . A problem this number will face and what other previous studies also review, shows of a significant relation of burnout with each grownup years, that means the increase of 5% pre-existing medical need every year (Studnek et al., 2010). Also, the age increases the path of experience that lead to decrease getting injuries, andwill also increase the capability to do their job as usually (Maguire Leidos et al., 2005).

The effect of it could be covered for our worker by the many cases and crisis they face through occupation and lack of resources and the culture effect of team work that could be described in sharing the experience by the workers through their rest time orduring their dealing with a case.

Marital status in this study present that 85.6% of the workersare married, 13.4% were single. Withrefers to our social culture, as young men marry early, and there is no aging staff in EMS teamwork. In the literature the married status avoids the worker from emotional exhaustion and depersonalization and lowers the mortality risk and gives better aspect on health (Khatiban et al., 2015).

Soas85.6% of the workers are married they get positive path effect on their health status compared with the literature.

Our findings showed that the education level of workers is82%, with diploma as lowest degree and the Doctor Of Philosophy (PHD) the highest level of degree. Andthe study showed high school certification,22.1% in West Bank, 10.4% in Gaza, and Jerusalem with 6.5%uneducated employees in the 3 area of study.

Regarding to employment status in this study present 79.7% of the workers work in one field evenas care provider oreducator or manager, most of them as care provider (77.8%), while the(17.7%) of the worker just work ascare provider and educator.That indicates EMTs who work on Juggling multiple jobs suffering from unhealthy status more than others who work in one job(Gordon, 2019). Also previous studies show that employment promote the health status and engage the worker in society, also have huge relation with physical, mental health and mortality with limitation the harmful effect and risk that worker could get, while the employment in any job is part of social-economy security(Waddell & Burton, 2006).

Our findings shown that income was between 3000 and 3999 NIS 41.8% of Gaza employee payment. And 44.4% of West Bank employee get 4000 to 4999 NIS , while in Jerusalem area, all employees get a monthly income more than 5000 NIS. The different between the income from (Gaza and West Bank) with Jerusalem are the policy of the PRCS that bend in Jerusalem to the Israelis authority. While there is similar percent of years of experience, fulltime work and material status that could show this difference of income between Gaza and West bank, but there are big differences that may lead to it and that is the educational level illustrated this: in 61.2% of Gaza employee have the diploma degree, while in the West Bank the percent was 34.6%. There is also a difference in monthly working shift.

5.2 Occupational health

This section discuss occupational health risk from injuries or illness, and includes nature of injury, source of work injury and event of exposure of injury and the nature of illness, source of work illness and event of exposure of illness in work place on health status among the EMS worker.

Although despite there is no significant relation between work injury and work place in current study, the percentage of work injury was 61.8%,(64.5%, 62.5%, and 58.2% of Jerusalem, West Bank and Gaza respectively). Although there is no significant relation between illness at work and work place, our findings show that 42.5% of the employees have an illness at work, (54.8%,44.8%, and 39.9%in Jerusalem, Gaza and West Bankrespectively).

As previous studiesshowsthat workers have a lowerpercent ofworkload while working in an area familiar by the workerand a fixed areaand duty time (Studnek et al., 2018).

5.2.1 Work injury

The study provethat there is a significant relation between both nature of injuries (1.surface wounds and bruises and 2.chemical burns and corrosion injured) with the work place.TheGaza employeesinform the highest number of surface wounds and bruise type of injuries.The employees inthe West Bank and Jerusalem area inform that 60% of the nature of their injuriesareTraumatic injuries to themuscles.According to previous studies the highest nature of injury shows lower back pain (60.3%), knee pain (41.4%) and the upper back pain 40% (Studnek et al., 2018) that could be described by employee of this study as muscles traumatic injuries.

In addition, the study shows that there is a significant relation between the injuries of the person and the work place.Furthermore, there is a significant relation between the weight of ambulance equipment source and the work place.Regarding to the event of exposure of injuries, the study shows that there is a significant relation between injury by fire and explosions and the work place.Furthermore, there is a significant relation between injuriesby moving and transfer patients and the work place.A previous study showed a significant relation of source in persons, plants, animals and minerals.For event the previous studies showed a relation with 1.overexertion and 2.bodily reaction,3.harmful exposure and 4.violence,thatevents affect on workers health(NIOSH, 2017a).

5.2.2 Illness at work

The study provethat there is a significant relation between heart diseases and work place, fora high number in West Bank employees.Also the study present respiratory system problems as the highest percent of illness nature in the 3 area with (38%),where it is 52% in Jerusalem, 43.3% in Gaza, and 32.9% in the West Bank. According to a previous study in Baltimore commonly illness was the respiratory system (10%) (Gershon, 1995). The high number of

respiratory illness could the analyzed from the political situation, as a country under occupation, and many event of care during confrontations with Israeli army.

In addition, our finding showed that there is a significant relation between theperson as a source and the ambulance equipment for illnessand the work place. Moreover, Jerusalem employeeshad the most illness by ambulance equipment 47.1% and person source 52.9%. However, the structures and surfaces on the scene as a source of injury was the highest percent in Gaza, West Bank, and Jerusalem (76.7%, 61.4% and 58.8% respectively). According to a previous study,the source of exposure to blood and body fluids was (15%) of illness in Two hundred and twenty-six reports who were filed by EMS workers in Baltimore(Beltrami et al., 2000), while our study shows that it was the source of 1.6% of illness or 1.1% of injuries.

Regarding to the event of exposure of illness and work place, the study shows that there is a significant relation betweenillness by moving and transfer patients and illness during work hoursand the work place.The highest percent of Gaza illness exposure is the military (Israeli army) situation (66.7%). For West Bank the highest percent of illness was moving and transfer patients (65.1%). AlsoJerusalem area has the highest percent of illnesswith moving andtransfer patients (82.4%). That is comparedto a previous studies that showed many reason toget illness and injuries in the USA from tools, instruments, and equipment during dealing with patientsas asource of getting ill(NIOSH, 2017a).

5.3 Occupational variables

The study prove thataround half of the workers have more than 15 years of experience and the relation between work experience and work injurieshas a significant relation.It's support the previous globally study that shows that the more the worker get experience, the less significant theinjuries rate occur (Maguire Leidos et al., 2005). With that many percent of experienced workers in PRCS, EMS are more likely to be safe from injuries.

The study has3 level of EMS certification (EMT , Intermediates, Paramedic), and showed that 51.1% of the respondents have intermediates level of EMS certification, 47.8% of them have a EMT level, while 1% have a paramedic level. Comparing with the previous studies,it showsthat the less requirement of getting the EMT level more easily to get out of the job and the Paramedic are more hard to leave the job and will increase the risk of getting injuries among them (Amy Ferketich et al., 2018) This study shows that there isa huge difference between level of certification with 51.1% of the worker are EMT level and only 1% percent with Paramedic level.More than 41.8% of the workers have an experience more than 15 years. According to our study it finds the opposite of the world concept of previous studies for leaving the job.

Our finding showed the majority of workers were working in shifts 85.9%, and 14.1% work in a straight roll of morning shift. A previous study support that Night shift work was related to work injury for women odds ratio 2.04.The risk of work injury which refers to shift work was 14.4% for women and 8.2% for men based on population attributable(Wong et al., 2011). The overall rate of work injury decreased the lastten years, but did not decline for night shift workers (Wong et al., 2011).

According to previous studies, rotating and night shift workers appear to have a higher risk of work injury particularly among women(Wong et al., 2011). Also it shows a increase in burnout among workers due to the shift time as it increase the pressure of work on workers(Alarcon, 2011).In our findings there are less females present, so the effect of the rotating and night shift would have more effect on men.

5.4 Health Status

Our findings showed that an insignificant percent ofworkersreportsthat their overall health is fair and weak,(2.3% of workers) which means, that the work they domay affect their health.Our EMS team are young workers and as it'sconfirmed through previous studiesthat olderpeoplehave higher risk of unhealthy injuries during their work time.Thepercentageof illness islow.

However our finding showed also that66.8% of workers have their sleep time according to the duty time, 73.9% of them work in the shift system. While 29.6% of the workers have their sleep time at night, 76.7% of them do not work in the shift system. According to the previous study in Taiwan with workplace injury and sleepiness showed that rotating shifts are indicated as main cause of the high Epworth Sleepiness Scale (ESS) scores among EMS workers and that high of ESS scores increased their risk of sustaining a workplace injury (Lin et al., 2020).For our finding and the correlation between sleeping time and rotation it could be an effect on EMS health status.

Our findings of the physical activity timeshowed as aresult that94.3% of the workers have less than 150 minutes in the week physical time, while just 5.7% of the workers have more than 150 minutes in the week. According to the definition of the World Health Organization (WHO) health does not only mean lack of disease or disability, but the peak of human potentials in physical, psychic and social functioning, which confirms the usefulness and need for further studies on self-perceived health status. (WHO, 2014) It should be emphasized that subjective health assessment takes account not only of the state of somatic but also of psychic health. Our findings reflect the bad physical health our workers have from the load of work time or their life style of not having a physical activity that could improve their health.

Moreover, it reflects the capability of adults to function in a definite social and organizational situation, including work requirements. Sport as a physical activity could help the workers to cope withtheir stressor and emotional effect among EMS as a good strategy of coping (Erasmus, 2014). Our finding showeda lack of physical activities that could lead to increase the stressors and the emotional effect on health. Until now there is no strategyof caring or support on this way to help the worker to cope with the stress.

On the other hand, our findings showed 13.1% is suffering of a chronic disease among the participants. The type of that chronic disease, as this study showed, is an endocrine system diseases, skin problems, nervous system problems, diabetes, genetic diseases, heart problems,

respiratory problems, and a hypertension. Most of them indicate that it has nothing to do with their job.

The previous studies indicated a odds ratio of 0.83 decrease of risks of chronic disease among more educated workers(Smith et al., 2015). And supporting that with other studies which showsthat lower educated worker increase the work risk and increase the poor self-health assess(Nagel et al., 2008). Therefore our finding of high percent of educated workers will be a positive indicator to the health of worker.

In addition, our findings about three daily activities that could haveeffect on the health and couldbe a data base of the worker activities, shows 61.5% of respondents take breakfast on average most of days, also 53.1% of the workers are smokers.However 75.4% of workers don't wear glasses. The previous studies shows that smoking is a factor for leaving the job among men and thatdiet effects more females leaving the job. As the percentage of breakfast takers among the EMS workers is high the effect of leaving would be minor because of the low percent of women and the high percent of breakfast intake (Hagger-Johnson et al., 2017). But for our findings the life style and health activities could have complex relation with leaving the job especially with the high number of workers who don't want to leave the job.

5.4.1 Psychological healthy status

The findingshowedthat there is a significant relation between psychological suffering and work injury, 71.4% of participants injured are suffering from psychological problems, 57.3% of non-injured participants are suffering from psychological problems. Italso showed that there is a significant relation between psychological suffering and illness at work, 74.6% of participants, who have an illness at work are suffering from psychological problems, 59.7% of participants who don't have any illness at work are suffering from psychological problems.Moreover, the employees in Gaza are the most suffering from psychological problems (85.1%), 61.5% of participants in West Bank, while 54.8% of participants in Jerusalem.

Regarding to physical pain, the study proves that there is a significant relation between physical pain and the work place, where as 68.2% of participants didn't suffer from any physical pain. Also, there is a significant relation between the physical pain level and the work place, where, 50.5% of participants suffering from physical pain in moderate level, 34% of them suffer any physical pain in very moderate level. In addition, the study proves that there is a significant relation between psychological suffering and physical pain status, where as 42.8% of participant suffering from a physical pain, also suffer from psychological problems.

As to previous study of secondary traumatic stress and resilience among EMS, emergency medical technicians (EMTs) and paramedics are more susceptible to occupational stress than hospital health professionals. This reason for that, is that the EMS workers have to deal to unfamiliar scenes while caringfor critical patients.And they face increased exposure to traumatic events (Austin et al., 2018).

According to our finding about psychological problem with high rate of suffering that lead to be a supportive way of bad effect on the health of EMS workers due to unpredictable scene and event in Palestine.

According to our society the worker could have recap the situation with their colleagues and that may show a moderate level of relation, but not the real necessary effect, as (delay on checkpoint, taking a long time for arrive to the hospital, not having any sort of help and late respond of the other EMS units and multi-trauma patients), but the findings of work-load could still increase the psychological feelings in a bad way. The stress, exhaustion, sadness and frustration may lead to increase the possibility of injuries or illness due to psychological problems for the workers in Palestine.

5.5 Difficulties that faced EMS professionals

The study focus in 4 difficulties, difficulty of carrying the ambulance equipment, difficulty of walk up the stairs, difficulty of walk for a distance, general difficulties during the normal day time.

The study showed that there is no significant relation between the difficulties that faced EMS professionals and the work place.The study showsthat 16.7% of workers faced difficulties' during the normal day time, especially in Gaza with 20.9%, followed by 16.3% in West Bank, and 9.7% in Jerusalem. 16.0% faced difficulties in walk up the stairs, as a second difficulty that they face among the study difficulties. In Jerusalem the most difficulty they faced according to the work place was the difficulty of walking up the stairs with 22.6%.

According to previous study designs of new EMS patient-handling devices, to deal with musculoskeletal injuries that Fire service personnel and private ambulance paramedics suffer as they lift and carry patients while performing their job. Engineering changes are a potential opportunity for combating this problem(Conrad et al., 2008).

Inother previous studies the health workers, have the most high risk of low back pain due to their work condition, such a handling patient or long time standing or unstable work conditions(Okada et al., 2005).That correspond with our finding for having difficulties that could affect the health of EMS workers in Palestine.Especially in Jerusalem where they have to care for patient in a high flat buildings. That describedalso our findings which show that 22.6% of their workers had the difficulty of walking up the stairs. Also there is a high percent of workers who work in the cities with high buildings with no chance to have any support. And this challenges could raise the percent higherup, as they still use old techniques or old equipments, that the organization don't repair or change it.The worker could decrease the challenges that are faced with better equipment.

5.6 Satisfaction of profession

According to previous studies job satisfaction is defined as "how people feel about their jobs and different aspects of their jobs. It is the extent to which people like or dislike their jobs" (Spector, 1997), also showsthatthe more the EMS deal with difficult situations and they wereexposed to the scene the more that job satisfaction will decline (Alexander & Klein, 2001; Salleh et al., 2020). Our findings indicate, that there is a significant relation between

satisfactionunder theorganization and work place;highest level of satisfaction was in Gaza (mean=2.97) with high level, followed by level of satisfaction in Jerusalem with high level (mean=2.74), then in West Bank with high level (mean=2.56). However, there is no significant relation between satisfaction of EMS profession and work place, where the highest level of satisfaction under this organization was in Jerusalem (mean=3) with high level, followed by Gaza (mean=2.89) with high level, then in West Bank (mean=2.89) with high level. Also there is a significant relation between satisfaction of the direct supervisor and work place.

The study showed that there is no significant relation between satisfaction Under theorganization and work injury (P-value=0.194). 69.7% was satisfied even with work injury, 8.0% dissatisfied with their injury. However, there is no significant relation between satisfaction of EMS profession and work injury (P-value=0.378), also there is no significant relation between satisfaction of direct supervisor and work injury (P-value=0.328).

According to our findings the satisfaction could refer to many reasons that could affecttheir satisfaction on their job, even with the physical pain or illness or work injuries. It could be the situation of the country or not finding another job or the physical capability of the workers or the power of help for his country, family or people that the worker find satisfaction in this job.That could be a good subject for further research.

5.7 Decision of leaving

There is a significant relation of the decision of leaving the organization and professional satisfaction in all three dimensions (satisfaction of EMS profession under this organization, satisfaction of EMS profession, satisfaction of direct supervisor). This appears special in to West Bank in all 3 dimensions. In Gaza and Jerusalem areas not significant in any dimensions.

The study showed that there is a significant relation between the decision of leaving the organization and work place;85.1% in Gaza, 51.0% in West Bank, 38.7% in Jerusalem will definitely not leave. However, there is a significant relation between the decision of Leaving

EMS and place work, where is 85.1% in Gaza, 56.3% in West Bank, 48.4% in Jerusalem definitely will not leave.

There is no significant relation between decision of leaving organization and work injury, according to the result 57.1% definitely will not leave even with work injuries. There is no significant relation between decision of Leaving EMS and work injury, 60.8% with their work injury definitely will not leave. Also, the study proves that there is a significant relation between decision of leaving organization and illness at work, where as 61.5% of who'sbeen ill, definitely will not leave. However, there is no significant relation between decision of Leaving EMS and illness at work, while 61.5% from workers who are ill during work will definitive not leave.

According to previous studies present that feeling over-stressed or over-worked is one of the most reasons to leave work as Kris Hughes said "One of the great ironies of the American workplace is that the highest performing employees are often burdened with the most unreasonable volume of work to perform" . This leads to a stress level that isn't controllable, and these high performers naturally look for better fits elsewhere in time(Hughes, 2018).

Our findings shown that there is a statistically significant increase of employees not willing to leave the organization who not have any physical illness compared to those who have a physical illness. Also, there is a statistically significant increase of employees not willing to leave although they are not satisfied to EMS job compared with those satisfied. Moreover, those who working in Gaza arenot willing to leave compared with those who are working in Jerusalem. When the age of the employee increase by the years the probability of not willing to leave EMS job increases also.

The whole idea behind workers' compensation is pretty simple. Employees injured on the job are entitled to compensation for their medical bills, medications, out-of-pocket expenses, and part of their lost wages. In our country , financial resources are rarely, and sometimes compensations are not paid, which lead our workers to continue with their company or society and to decide not to leave their job although they are injured or ill to get money in other

professions, especially health workers and EMS workers. While their decision could have realistic thinking not to leave the job situation as there is rare capability to have one, especially with the increase in age and the specialized area that the worker get experience in this field.

The decision of not leaving is also much connected with the level of satisfaction (see 5.6).

5.8 Organization System

Our findings showedthat 9.6% of respondents were working in different organization as EMS professions, that could mean tomultiply the effect of every condition of theEMS job effects on health. As for protection care for the worker's health about 49.5% of respondents said, that the organizations provide a self-protection substance and material. About 50.3% of respondents said that their organization givethem time for rest during the shifts. Also 65.8% of respondents present that the organization don't force them for the schedule shift, 14.8% of them said that they do that some times.

According to previous study present to prevent injuries ofEMS worker efforts of the organizations are needed to enhance the already existing and to invent new things especially those aimed at preventing body motion injuries and exposures to harmful substances. EMS systems around the word should consider to take on and adjust injury prevention measures to enhance occupational safety and promote the health, interpretation, and care of the EMS workforce(Reichard et al., 2017).The organization of PRCS don't have accident reports for their worker to measure the risk or to check the shortage of equipment. The workers respond in the study that around 50 % have protective equipment and that is a negative indicator to workers health.

Study Limitation

1-Movement restriction pose a great difficult in transporting from one area to another by the political situation in Palestine, and that lead to reschedule the time for more visits.

2- Lack of related literature resources like books and journals.

3- Shift system of EMS , that had been a challenge with collecting data for the researcher.

4- Susceptible information bias a recall bias in self-administrative questionnaire.

Recommendation

1- Settings up a computerized report of incident " Incident report" For the employee, to follow up any injuries , illness and the cause of it including the work environment.
2- Set a training schedule for employee to learn how to use equipment with a new technique or the perfect way to do, to avoid any risk.
3- Provision of modern equipment that are made to minimize risks that EMS workers exposed to.
4- Set a training program to increase awareness and knowledge about risks and how to avoid.
5- Developing a worker profile for each worker to follow up the health status.
6- Minimize the work load by reduce the shift time.
7- Establish a psychological relief program including motivation methods with provide an environment of comfort and exercise machine to maintain of worker physical and psychological health.

10- Raise the interconnection between the emergency devices to secure the site of EMS involve in (Police, Fire civil and EMS).

11-createan employment program including a physical and knowledge test for the new employment as a requirement to be hired and for old employee to confirm the knowledge and physical capability every interval time.

12-future research recommendations to be investigated:

- Analysis the medical service provided by EMS workers in the work fieldas an essential service in theirterm of health and economic part.

-Clarify the effects of the political situation of the EMS, so to raise a recommendation for policy makers.

-Study of reasons of satisfaction (Why not too leave ?!)

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Appendix

Appendix. 2. Assessment of the Palestinian Red Crescent Society Medical Emergency Workers' Health Risks, Satisfaction and Psychological Situation in Palestine

Personal information

1- What is your birthday : _ _ _ _ / _ _ / _ _

2- What is your sex?
□ Male □Female

3- Education level?
□*High school graduate* □ diploma □Bachelor □high diploma
□Master □doctoral degree

4- current marital status?
□ Married □divorced □Widowed □never been married (single)

How many child do you have if you are not single? ____

5- Your work nature (you can choose more than one)
□Ambulatory service provider
□ambulance and emergency trainer
□Ambulance and emergency manager

6- Do you work ? □ full time □ part time

7- The salary you received in your ambulance and emergency job :

□2000-2999 □3000-3999 □4000-4999 □5000-5999 □6000 or more

8- In which Governorate do you perform most of your EMS work?
□ Jenin □ Talkarem □ Nablus □ Qalquela □ Tubas □Salfet □ Ramallah □ Jerusalem □Jericho □ Bethlehem □ Hebron □Gaza □North Gaza □ middle of Gaza □khanYounes □Rafah

A- Occupational information

9- Date of work? _ _ _ _ / _ _ / _ _

10- How many years have you worked as an EMS professional? _____

11- At what level are you currently practicing as an EMS provider?
□first responder □EMT □Intermediate □Paramedic

12- Do you work in the shift system :- □Yes □No

13- On average, how many calls do you respond to in a typical week at your main EMS job? □0 to 4 □5 to9 □10 to 14 □15 to 19 □ 20 to 24 □25 to 29 □ 30 or more

14- How many shifts do you work in a typical 30-days (4 week) period at your main EMS job? (Please enter a whole number between 0 - 30.
____ shifts

15- Do you currently perform EMS work For different agencies/organizations? (Please include agencies/organizations where you work as a volunteer.)? □Yes □No

16- Which of the following best describes the community in which you do most of your EMS work? □ Refugee camp □ Village □ City

B- Information about the level of health:-

General health:

17- You can say about your health that it is ?□Great □ Very Good □ Good □ fair □weak

18- Have you been diagnosis for any disease ? □Yes □No , if yes name of it _____

Sleep:

19- How many hours do you get sleep? □ 5 or less □6 hours □7 hours □8 hour and more

20- Which time of the day you get your sleeping? □ daylight □night □according to duty time

Sport:

21- How many time you practice sports on week? □null □1-2 time□3-4 time □5 or more

22- How many time dose you practice that sports ? □ 15 min □30 min □1 hour □ 2 hour □ 2 hour and more.

Daily activates :

23- Weekly, how many times you get breakfast?

□ null □every day □most of the days □ twice or three times □ rarely

24- Smoking ? □Yes □No

25- Wear Classes ?□Yes □No

Psychological health:

26- In the last 30 days, did you force a Psychological problems ? □Yes □No
if you have please determine the level in next 3 question

Do you feel anxiety or Frustration?

□ never □little of times □ sometimes □good time □most of time □all of time

Do you feel a peaceful and calm?

□ never □little of times □ sometimes □good time □most of time □all of time

Are you a happy person?

□ never □little of times □ sometimes □good time □most of time □all of time

Physical health:

27- Have you got any physical pain ? □Yes □No

28- Gould you describe your pain as ? □ very moderate □moderate □ painfull
□sever pain

C- Difficulties:

29- Difficulty of carrying the ambulance equipment? □Yes □No □sometimes

30- Difficulty of walk up the stairs? □Yes □No □sometimes

31- Difficulty of walk for a distance ? □Yes □No □sometimes

32- Difficulty and limitation during the normal day time? □Yes □No □sometimes

D- Job satisfaction AND Leave decision

Job satisfaction

pleasedetermine your satisfaction:

33- How satisfied are you with the EMS profession under this organization?
□very satisfaction □satisfied □dissatisfied □very Dissatisfied.

34- How satisfied are you with your main EMS job?
□very satisfaction □satisfied □dissatisfied □very Dissatisfied.

35- At your main EMS job, how satisfied are you with your direct supervisor?
□very satisfaction □satisfied □dissatisfied □very Dissatisfied.

Leave work:

36- How likely is it that you'll leave your current main EMS job within the next 12 months?
□ definitely will not leave □probably will not leave, □probably will leave □definitely will leave.

37- How likely is it that you'll leave EMS within the next 12 months?
□ definitely will not leave □probably will not leave, □probably will leave □definitely will leave.

E- Nature of Injury during work:

Did you have traumatic injary during your EMS job(s)? □Yes □No

if yes Please answer the next question

The nature of the injury as a result of work			
38	Have you get spinal trauma	□yes	□No
39	Have you get bone trauma	□yes	□No
40	Have you get nervous trauma	□yes	□No
41	Have you get Traumatic injuries to muscles	□yes	□No
42	Have you get ligament and tendons injuries	□yes	□No
43	Have you get Open wounds	□yes	□No
44	Have you get Surface wounds and bruises	□yes	□No
45	Have you get chemical burns and corrosion	□yes	□No
46	Have you get heat burns and corrosion	□yes	□No
47	Have you get electric burns and corrosion	□yes	□No
48	Have you get head injuries	□yes	□No
49	Have you get environmental condition	□yes	□No
50	Other traumatic :- (Drowning, allergenic or Poising)	□yes	□No
51	Have you get multiple traumatic	□yes	□No

Source of Injury :-

52	Have you got it from Chemical	□Yes	□No
53	Have you get it from ambulance equipment	□Yes	□No
54	Have you get it from the weight of ambulance equipment	□Yes	□No
55	Have you get it from vehicle and mobile equipment	□Yes	□No
56	Have you get it from vehicle serine of ambulance	□Yes	□No
57	Have you get it from persons	□Yes	□No
58	Have you get it from structures and surfaces on the scene	□Yes	□No
59	Have you get it from ambulance flash lights	□Yes	□No
60	Have you get it from street night lights		
61	Have you get it from blood fluid	□Yes	□No
62	Have you get it from plant	□Yes	□No
63	Have you get it from unknown element condition	□Yes	□No

Event Of Exposure:-

64	Have you get the exposure in a violence and other injured situation for a civil situation	□Yes	□No
65	Have you get the exposure in a violence and other injured situation for a military	□Yes	□No
66	Have you get the exposure in a Transportation accident	□Yes	□No
67	Have you get the exposure in a Fire and Explosions	□Yes	□No
68	Have you get the exposure in a Falls, Slip, Trips	□Yes	□No
69	Have you get exposure to harmful substances	□Yes	□No
70	Have you get exposure in moving and transfer patients	□Yes	□No
71	Have you get exposure in using ambulance equipment	□Yes	□No
72	Have you get exposure to Fatigue with stressful event	□Yes	□No
73	Have you get exposure during continuous of work time		

108- During the past 12 months, how many days have you been absent from your EMS job(s) due to work related disease? Including the Psychological problem
□null □day to 5 □6to 10 □11 to 15 □16 to 20 □ 20 or more
- what is it _____

109- In case you have been illness of something, Did your organizations force you to work and be there at your scheduled shifts? □Yes □No □sometime

F- Nature of illness during work:-

Did you have disease and disorder of body system, during your EMS job(s) if yes Please answer the next question:-

74	Have you get disorder of the hearing	□yes	□No
75	Have you get disorder of the eye, vision	□yes	□No
76	Have you get heart disease	□yes	□No
77	Have you get hypertension disease	□yes	□No
78	Have you get Diseases of arteries, arterioles, capillaries	□yes	□No
79	Have you get diabetes	□yes	□No
80	Have you get Respiratory system diseases	□yes	□No
81	Have you get digestive system disease	□yes	□No
82	Have you get genitourinary system disease?	□yes	□No
83	Have you get musculoskeletal system disease	□yes	□No
84	Have you get disorder of skin, subcutaneous tissue	□yes	□No
85	Have you get Endocrine, nutritional, metabolic, and immunity disorders	□yes	□No

Source of Illness:-

86	Have you got it from Chemical	□Yes	□No
87	Have you get it from ambulance equipment	□Yes	□No
88	Have you get it from the weight of ambulance equipment	□Yes	□No
89	Have you get it from vehicle and mobile equipment	□Yes	□No
90	Have you get it from vehicle serine of ambulance	□Yes	□No
91	Have you get it from persons	□Yes	□No
92	Have you get it from structures and surfaces on the scene	□Yes	□No
93	Have you get it from ambulance flash lights	□Yes	□No
94	Have you get it from street night lights		
95	Have you get it from blood fluid	□Yes	□No
96	Have you get it from plant	□Yes	□No
97	Have you get it from unknown element condition	□Yes	□No

Event Of Exposure:-

98	Have you get the exposure in a violence and other injured situation for a civil situation	□Yes	□No
99	Have you get the exposure in a violence and other injured situation for a military	□Yes	□No
100	Have you get the exposure in a Transportation accident	□Yes	□No
101	Have you get the exposure in a Fire and Explosions	□Yes	□No
102	Have you get the exposure in a Falls, Slip, Trips	□Yes	□No
103	Have you get exposure to harmful substances	□Yes	□No
104	Have you get exposure in moving and transfer patients	□Yes	□No
105	Have you get exposure in using ambulance equipment	□Yes	□No
106	Have you get exposure to Fatigue with stressful event	□Yes	□No
107	Have you get exposure during continuous of work time		

110- During the past 12 months, how many days have you been absent from your EMS job(s) due to work related disease? Including the Psychological problem
□null □day to 5 □6to 10 □11 to 15 □16 to 20 □ 20 or more
- what is it _____

111- In case you have been illness of something, Did your organizations force you to work and be there at your scheduled shifts? □Yes □No □sometime

G- Working under the association:-

108- Do the organizations provide a self protection substance and material? □Yes □No 109- Dose there a time for rest during the shifts? □Yes □No

Appendix. 3

جامعة القدس

كلية الصحة العامة

استبيان

تقييم المخاطر الصحية والوضع النفسي ورضى العاملين في الخدمات الطبية للاسعاف والطوارئ في " جمعية الهلال الأحمر الفلسطيني في فلسطين
".
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الباحث

اسماعيل اسامة ابو زيَاد

المشرف

د. مهى النوباني

يقوم الباحث بدراسة بعنوان"تقييم المخاطر الصحية لعمال الطوارئ في جمعية الهلال الأحمر الفلسطيني والرضا والوضع النفسي في فلسطين."

حيث ستساعد هذه الدراسة على التعرف على المستوى الصحي لدى المسعفين والعاملين في هذا المجال تحت غطاء جمعية الهلال الاحمر الفلسطيني، وتحديد المخاطر التي قد يتعرض لها من بيئة العمل وابرز المشاكل الصحية والعوامل المودية اليها

لذا نامل من حضرتكم الحرص على تعبئة كافة الخانات الموجودة مع مراعات الدقة بالإجابة والتمعن بقراءة المطلوب لملئ الخانة

علما بان هذه البيانات لغرض البحث العلمي فقط.

يرجى مراعات بان هذه الدراسة دراسة مقطعية للسنة 2019

أ. معلومات شخصية

1- تاريخ الميلاد _ _ _ _ / _ _ / _ _

2- الجنس ؟ □ ذكر □ انثى

3- المستوى التعليمي ؟

□ ثانوية عامة □ دبلوم متوسط □ بكالوريوس □ دبلوم عالي □ ماجستير □دكتوراة

4- الحالة الاجتماعية ؟ □ متزوج □ مطلق □ ارمل □ عازب

عدد الاولاد؟ _____

5- -طبيعة عملك ؟ (يمكنك اختيار اكثر من جزئية)

□ مقدم الخدمة الاسعافية

□ مدرب اسعاف وطوارئ

□ مدير الاسعاف والطوارئ

6- هل تعمل بدوام ؟ □ بدوام كلي □بدوام جزئي

7- كم الراتب الذي تتقاضاه من وظيفتك في خدمات الاسعاف والطوارئ؟

□ 0 -499 □ 500 – 9991 □1000 – 1499 □ 1500 - 1999 □2000 -2999 □3000 -3999

□4000 -4999 □5000 او اكثر.

8- مكان العمل؟

□ جنين □ طولكرم □نابلس □ قلقيلية □ طوباس □ سلفيت □ رام الله □ القدس □ اريحا □ بيت لحم □ الخليل

□ غزة □ شمال غزة □ الوسطى □ خانيونس □ رفح

ب. معلومات وظيفية

9- تاريخ العمل ؟ _ _ _ _ / _ _ / _ _

10- سنوات الخبرة في هذا المجال، كمسعف : _____

11- ما هي رتبتك الوظيفية ؟

□ مستجيب اولي □ مستوى أول □ مستوى ثاني □ مستوى ثالث Paramedic""

12- هل تعمل في نظام الورديات؟ □ نعم □ لا

13- بالمعدل، كم حالة بحاجة لخدمات الاسعاف والطوارئ تتعامل معاها اسبوعياً ؟

□ 0- 4 حالات □ 5 -9 حالات □ 10 -14 حالة □ 15-19 حالة

□ 20 – 24 حالة □ 25 – 29 حالة □ 30 حالة او اكثر ، حدد _____

14- بمعدل، ما عدد الورديات التي تعمل بها في الشهر ؟

_____ وردية

15- أضافة الى عملك في جمعية الهلال الاحمر الفلسطيني، هل تعمل بموسسات اخرى تقدم نفس الخدمة الاسعافية ؟

□ نعم □ لا

16- موقع عملك ؟ □ مخيم □ قرية □ مدينة

ج. معلومات عن مستوى الصحة:

17- بشكل عام، يمكنك القول ان صحتك ؟

□ ممتازة □ جيدة جدا □ جيدة □ مقبولة □ ضعيفة

18- هل تم تشخيصك بمرض مزمن ؟ □ نعم □ لا

اذا كان الجواب بنعم، ما هو المرض _____

19- بشكل عاما معدل ساعات النوم التي تقضيها في اليوم؟

□ 5 فما دون □ 6 ساعات □ 7 ساعات □ 8 او اكثر

20- في اي فترة من اليوم، تقضي ساعات النوم تلك؟ □ نهاراً □ ليلاً □ حسب فترة الدوام

21- كم مرة في الاسبوع تمارس الرياضة؟□ 0□ 1 □ 2□ 3 □ 4□ 5 □ 6 □ 7

" الرياضة: نشاط جسدي يخصص له وقت معين يهدف فيه الى تنمية القدراة الجسدية والعقلية"

22- في كل مرة، كم المعدل الساعات التي تقضيها للنشاط الجسدي " الرياضي" ؟

□ 15 دقيقة □ 30 دقيقة □ 1 ساعة □ 2 ساعة□اكثر من ساعتين

23- في الغالب، كم مرة تتناول وجبة الافطار في الاسبوع؟

□ ولا يوم □ كل الايام □ معظم الايام □ مرتان او ثلاث مرات في الاسبوع □ نادرا

24- هل انت مدخن؟ □ نعم □ لا

25- هل تلبس نظارات نظر؟ □ نعم □ لا

26- في الشهر الماضي، هل واجهت صعوبة في العمل نتيجة لمشاكل نفسية □ نعم □ لا

- هل تشعر بالقلق او الاكتئاب ؟

□ ابدا □ القليل من الوقت □ بعض الوقت □ وقت جيد □ معظم الوقت □ كل الوقت

- هل تشعر بالهدوء والسكينة ؟

□ ابدا □ القليل من الوقت □ بعض الوقت □ وقت جيد □ معظم الوقت □ كل الوقت

- هل انت شخص سعيد؟

□ ابدا □ القليل من الوقت □ بعض الوقت □ وقت جيد □ معظم الوقت □ كل الوقت

27- هل تعاني من الالم جسدية ؟ □ نعم □ لا

28- ما مقدار الالم الجسدي الذي عانيت منه خلال الشهر الماضي ؟

□ لا يوجد □ معتدل جدا □ معتدل □ شديد □ شديد جدا

29- هل تعاني من صعوبة في حمل ادوات الاسعاف؟ □ نعم □ لا □ احيانا

30- هل تعاني من صعوبات في صعود الدرج او المرتفعات ؟ □ نعم □ لا□ احيانا

31- هل تعاني من صعوبات في المشي لمسافات معينة او كبيرة ؟ □ نعم □ لا□ احيانا

32- هل واجهت صعوبة او محدودية في العمل او الحياة اليومية؟ □ نعم □ لا□ احيانا

د. الرضى الوظيفي و مغادرة العمل:

33- هل انت راضي عن وظيفتك في هذا المجال، تحت ادارة هذه الموسسة ؟

□ غير راضي بتاتا □ غير راضي □ راضي □ راضي جدا

34- هل انت راضي عن المجال الذي تعمل فيه ؟

□ غير راضي بتاتا □ غير راضي □ راضي □ راضي جدا

35- هل انت راضي عن مسوولك المباشر في العمل ؟

□ غير راضي بتاتا □ غير راضي □ راضي □ راضي جدا

36- ما احتمالية تركك للعمل في هذا المجال تحت غطاء هذه الموسسة، خلال العام القادم ؟

□ بالتاكيد سأغادر. □ ممكن ان اغادر □ ممكن الا اغادر □ بالتاكيد لن أغادر.

37- ما احتمالية تركك للمجال بشكل كامل خلال العام القادم ؟

□ بالتاكيد سأغادر. □ ممكن ان اغادر □ ممكن الا اغادر □ بالتاكيد لن أغادر.

ذ. اسئلة تتمحور حول طبيعة الاصابة او المرض جراء العمل ؟

- هل تعرضت لاصابة ؟ □ نعم □ لا

اذا كان الجواب نعم ، يرجى تعبئة الاسئلة التالية :

-38	هل أصبت في العمود الفقري؟	□ نعم	□ لا
-39	هل أصبت في العظم؟	□ نعم	□ لا
-40	هل أصبت في الجهاز العصبي؟	□ نعم	□ لا
-41	هل أصبت في العضلات؟	□ نعم	□ لا
-42	هل أصبت في الاوتار او الاربطة؟	□ نعم	□ لا
-43	هل أصبت بجرح مفتوح؟	□ نعم	□ لا
-44	هل أصبت بكدمات او جروح سطحية ؟	□ نعم	□ لا
-45	هل أصبت بحروق كيميائية ؟	□ نعم	□ لا
-46	هل أصبت بحروق حرارية؟	□ نعم	□ لا
-47	هل اصبت بحروق كهربائية؟	□ نعم	□ لا
-48	هل أصبت في الراس ؟	□ نعم	□ لا
-49	هل أصبت جراء تغيرات في الظروف البيئية ؟	□ نعم	□ لا
-50	هل أصبت اصابات اخرى، (غرق، تسمم، تحسس)	□ نعم	□ لا
-51	هل حصلت لك اصابة متعددة المواقع؟	□ نعم	□ لا

مصدر الاصابة :-

-52	هل كانت الاصابة او المرض ناتجة عن مواد كيمائية ؟	□ نعم	□ لا
-53	هل كانت الاصابة او المرض ناتجة عن معدات الاسعاف؟	□ نعم	□ لا
-54	هل كانت الاصابة او المرض ناتجة عن وزن المعدات؟	□ نعم	□ لا
-55	هل كانت الاصابة او المرض ناتجة عن هيكل سيارة الاسعاف ؟	□ نعم	□ لا
-56	هل كانت مشكلة السمع ناتجة عن الصافرة لسيارة الاسعاف؟	□ نعم	□ لا
-57	هل كانت الاصابة او المرض ناتجة عن التعرض لاعتداء من انسان ؟	□ نعم	□ لا
-58	هل كانت الاصابة او المرض ناتجة عن موقع الحالة ؟	□ نعم	□ لا
-59	هل كانت مشكلة الرويا ناتجة عن " اضاءة اللواح " سيارة الاسعاف؟	□ نعم	□ لا
-60	هل كانت مشكلة الرويا ناتجة عن الاضائة اليلية في الشوارع؟	□ نعم	□ لا
-61	هل كانت الاصابة او المرض ناتجة عن التعرض لسائل دموي؟	□ نعم	□ لا
-62	هل كانت الاصابة او المرض ناتجة عن التعرض لنبات معين؟	□ نعم	□ لا
-63	هل كانت الاصابة او المرض ناتجة عن التعرض لجسم غريب؟	□ نعم	□ لا

وقت الاصابة :-

-64	هل كانت الاصابة او المرض ناتجة لموقف مدني (اعتداء مدني) ؟	□ نعم	□ لا
-65	هل كانت الاصابة او المرض ناتجة لموقف عسكري(اعتداء عسكري، مواجهات) ؟	□ نعم	□ لا
-66	هل كانت الاصابة او المرض ناتجة لحادث سير؟	□ نعم	□ لا
-67	هل كانت الاصابة او المرض ناتجة لحريق او انفجار ؟	□ نعم	□ لا
-68	هل كانت الاصابة او المرض ناتجة لتزحلق او الوقوع او التعثر؟	□ نعم	□ لا
-69	هل كانت الاصابة او المرض ناتجة لتعرض لمواد موذية ؟	□ نعم	□ لا
-70	هل كانت الاصابة او المرض ناتجة عن نقل الحالات؟	□ نعم	□ لا
-71	هل كانت الاصابة او المرض ناتجة عن التعامل مع الادوات والمعدات؟	□ نعم	□ لا
-72	هل كانت الاصابة او المرض ناتجة عن الجهد جسدي (الاعياء) ؟	□ نعم	□ لا
-73	هل كانت الاصابة اوالمرض ناتجة عن التواصل في اوقات العمل ؟	□ نعم	□ لا

108- خلال العام الماضي كم يوم، تغيبت عن الدوام جراء الاصابة في العمل ؟

□ ولا يوم □ يوم – 5 □ 6-10 □ 11- 15 □ 16-20 □اكثر من 20

وما هي تلك الاصابة ؟_____

109- في حال عانية من مشكلة صحية، هل تجبر على الدوام في حال لم تتمكن الجمعية من توفير بديل ؟ □ نعم □ لا □ احيانا

ر. هل تعرضت لمرض اثناء العمل : اذا نعم اكمل الاسئلة التالية

-74	هل نعرضت لمشكلة في السمع؟	□ نعم	□ لا
-75	هل تعرضت لمشكلة في الرويا او العينين ؟	□ نعم	□ لا
-76	هل تعرضت لمرض في القلب ؟	□ نعم	□ لا
-77	هل تعرضت لمرض في الاوعية الدموية؟	□ نعم	□ لا
-78	هل تعرضت لارتفاع ضغط الدم ؟	□ نعم	□ لا
-79	هل تعرضت لمرض السكري؟	□ نعم	□ لا
-80	هل تعرضت لامراض في الجهاز التنفسي؟	□ نعم	□ لا
-81	هل تعرضت لمرض في الجهاز البولي او التناسلي؟	□ نعم	□ لا
-82	هل تعرضت لمرض في الجهاز الهيكلي؟	□ نعم	□ لا
-83	هل تعرضت لمرض في الجهاز الهضمي ؟	□ نعم	□ لا
-84	هل تعرضت لاضظرابات او مرض في الجلد او الانسجة تحت الجلد؟	□ نعم	□ لا
-85	هل تعرضت لامراض نقص المناعة ؟	□ نعم	□ لا

اسئلة تتمحور حول مصدر المرض:

-86	هل كانت الاصابة او المرض ناتجة عن مواد كيمائية ؟	□ نعم	□ لا
-87	هل كانت الاصابة او المرض ناتجة عن معدات الاسعاف؟	□ نعم	□ لا
-88	هل كانت الاصابة او المرض ناتجة عن وزن المعدات؟	□ نعم	□ لا
-89	هل كانت الاصابة او المرض ناتجة عن هيكل سيارة الاسعاف ؟	□ نعم	□ لا
-90	هل كانت مشكلة السمع ناتجة عن الصافرة لسيارة الاسعاف؟	□ نعم	□ لا
-91	هل كانت الاصابة او المرض ناتجة عن التعرض لاعتداء من انسان ؟	□ نعم	□ لا
-92	هل كانت الاصابة او المرض ناتجة عن موقع الحالة ؟	□ نعم	□ لا
-93	هل كانت مشكلة الرويا ناتجة عن " اضاءة اللواح " سيارة الاسعاف؟	□ نعم	□ لا
-94	هل كانت مشكلة الرويا ناتجة عن الاضائة اليلية في الشوارع؟	□ نعم	□ لا
-95	هل كانت الاصابة او المرض ناتجة عن التعرض لسائل دموي؟	□ نعم	□ لا
-96	هل كانت الاصابة او المرض ناتجة عن التعرض لنبات معين؟	□ نعم	□ لا
-97	هل كانت الاصابة او المرض ناتجة عن التعرض لجسم غريب؟	□ نعم	□ لا

اسئلة تتمحور حول وقت التعرض المرض:

-98	هل كانت الاصابة او المرض ناتجة لموقف مدني (اعتداء مدني) ؟	□ نعم	□ لا
-99	هل كانت الاصابة او المرض ناتجة لموقف عسكري(اعتداء عسكري، مواجهات) ؟	□ نعم	□ لا
-100	هل كانت الاصابة او المرض ناتجة لحادث سير؟	□ نعم	□ لا
-101	هل كانت الاصابة او المرض ناتجة لحريق او انفجار ؟	□ نعم	□ لا
-102	هل كانت الاصابة او المرض ناتجة لتزحلق او الوقوع او التعثر؟	□ نعم	□ لا
-103	هل كانت الاصابة او المرض ناتجة لتعرض لمواد موذية ؟	□ نعم	□ لا
-104	هل كانت الاصابة او المرض ناتجة عن نقل الحالات؟	□ نعم	□ لا
-105	هل كانت الاصابة او المرض ناتجة عن التعامل مع الادوات والمعدات؟	□ نعم	□ لا
-106	هل كانت الاصابة او المرض ناتجة عن الجهد جسدي (الاعياء) ؟	□ نعم	□ لا
-107	هل كانت الاصابة اوالمرض ناتجة عن التواصل في اوقات العمل ؟	□ نعم	□ لا

110- خلال العام الماضي كم يوم، تغيبت عن الدوام جراء المرض في العمل، بالاضافة الى العامل النفسي؟

□ ولا يوم □ يوم – 5 □ 6-10 □ 11- 15 □ 16-20 □اكثر من 20

وما هو ذلك المرض؟_____

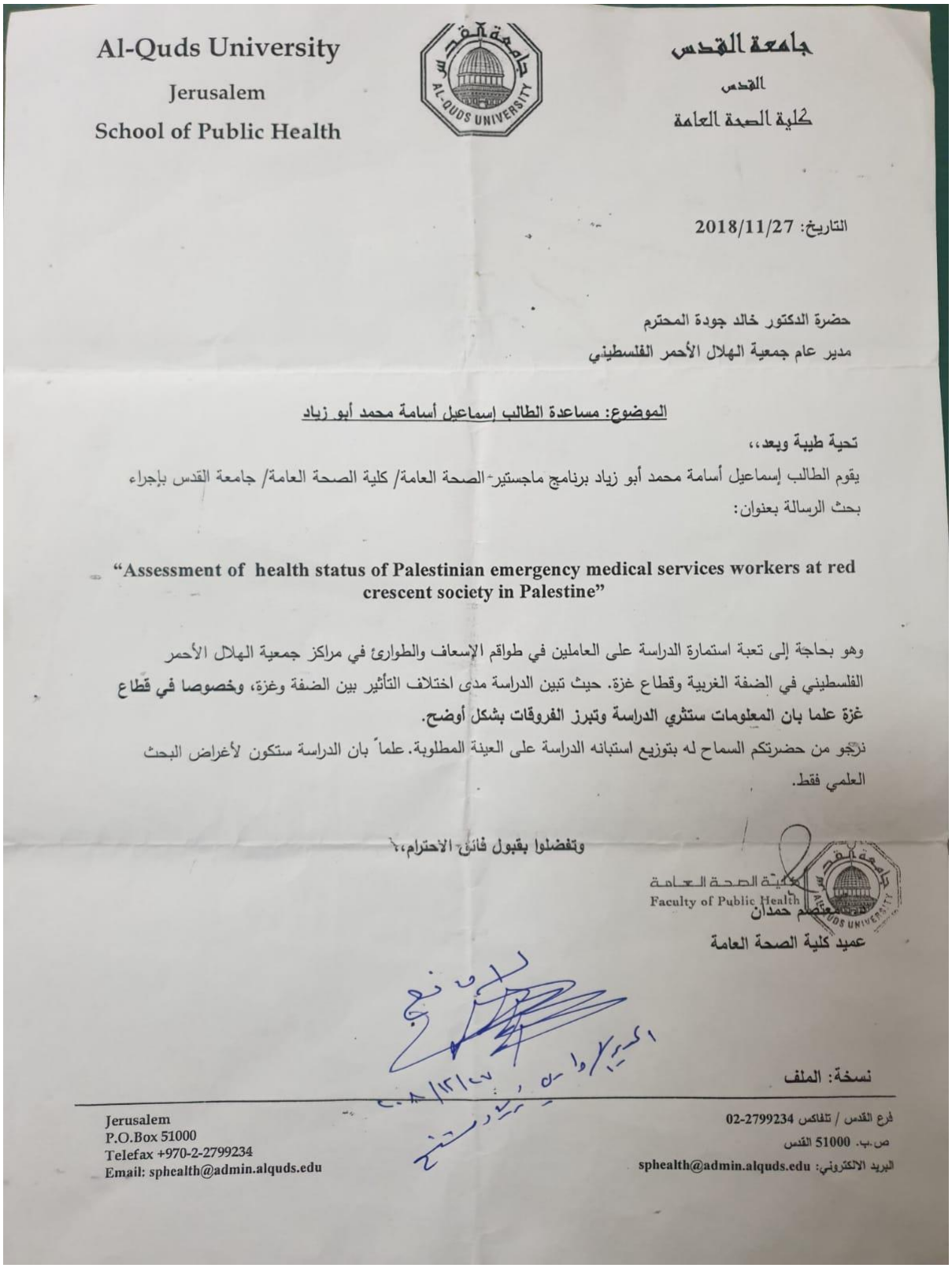
111- في حال عانية من مشكلة صحية، هل تجبر على الدوام في حال لم تتمكن الجمعية من توفير بديل ؟ □ نعم □ لا □ احيانا

ز. اسئلة تتعلق بالعمل تحت هذه الجمعية

112- هل تؤمن الجمعية وسائل الوقاية والحماية الشخصية المختلفة ؟ □ نعم □ لا

113- هل تتوفر فترات استراحة في فترة المناوبة ؟ □ نعم □ لا

Appendix.1



Al-Quds University
Jerusalem
School of Public Health

جامعة القدس
القدس
كلية الصحة العامة

التاريخ: 2018/11/27

حضرة الدكتور خالد جودة المحترم
مدير عام جمعية الهلال الأحمر الفلسطيني

الموضوع: مساعدة الطالب إسماعيل أسامة محمد أبو زياد

تحية طيبة وبعد،،

يقوم الطالب إسماعيل أسامة محمد أبو زياد برنامج ماجستير-الصحة العامة/ كلية الصحة العامة/ جامعة القدس بإجراء بحث الرسالة بعنوان:

"Assessment of health status of Palestinian emergency medical services workers at red crescent society in Palestine"

وهو بحاجة إلى تعبة استمارة الدراسة على العاملين في طواقم الإسعاف والطوارئ في مراكز جمعية الهلال الأحمر الفلسطيني في الضفة الغربية وقطاع غزة. حيث تبين الدراسة مدى اختلاف التأثير بين الضفة وغزة، **وخصوصا في قطاع غزة علما بان المعلومات ستثري الدراسة وتبرز الفروقات بشكل أوضح.**

نرجو من حضرتكم السماح له بتوزيع استبانه الدراسة على العينة المطلوبة. علماً بان الدراسة ستكون لأغراض البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام،،

كلية الصحة العامة
Faculty of Public Health

د. منتصر حمدان
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Appendix. 4

List of professionals they approve questionnaire:

1- **D. Nuha Alsharef**
2- **D. Maha Nubanie**
3- **D. Khaldon Bader**
4- **D. abedalmohsen Fanona**
5- **Mr. Ibrahem Ghoula**