**Deanship of Graduate Studies**
**Al-Quds University**

# Safety Culture at Governmental Primary Health Care Centers in the Gaza Strip

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**M. Sc. Thesis**

**Jerusalem- Palestine**

**1443 – 2022**

# Safety Culture at Governmental Primary Health Care Centers in the Gaza Strip

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**A Thesis Submitted in Partial Fulfillment of Requirements for the Degree of Master of Health Policy and Management/ Quality and patient safety track**
**School of Public Health- Al-Quds University**

**Jerusalem- Palestine**

**1443-2022**

**Al-Quds University**
**Deanship of Graduate Studies**
**School of Public Health**

## Thesis Approval

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## Dedication

I dedicate this work to my father thank you for telling me what am capable of. For giving me the support that i needed to build my dream to chase after, and for believing that i have the talent to reach my dream. To my mum thank you for making me realize that am worth everything in the world, that i should never settle for less than what i deserve, to my husband thank you for being my strength when am weak, my calm when am angry, my loving husband Amir, to the piece of my heart to the most beautiful daughter, my best friend ward. Thanks are also extended to my brothers and sisters, to all my friends and my beloved ones with whom I spent the lovely times and learned a lot.

## Declaration

I certify that this thesis submitted for the degree of master is the result of my own research, except 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:** *Watan Bassam Abedeljawad Abu Hamad*

**Watan Bassam Abedeljawad Abu Hamad**

Date: 31/05/2022

## Acknowledgment

First, and finally holy thanks for Allah who inspired me with the needed patience and power to accomplish this work. I owe deep thanks to Al-Quds University and its staff.

I find words too humble to express the deep appreciation and gratitude to be extended to Prof. Motasem Hamdan, for everything he did and is doing; particularly for his friendly tutorship, patience, nurturing, transferable experience and unforgettable endless support.

Thanks, are also extended to Dr. Bassam abu Hamad for his advices, exerted a lot of his time, notes and instructions.

Thanks, are also associated for all participants, Sincere thanks to colleagues; staff and friends at the School of Public Health and to all contributors in making this study possible.

I thank the Ministry of Health, directors, administrators and all the study participants who facilitated the distribution of the research questionnaire.

I thank everyone who helped me in any word, directed or modified my thinking in any stage of conducting this research.

**With respect,**

**Watan Bassam Abedeljawad Abu Hamad**

## Abstract

### Background and objectives

In health care, patient safety culture has been identified as a critical element of the quality of health care. This study assesses patient safety at the governmental primary health care centers (PHC) in Gaza as a step towards improving safety of health services through identifying and addressing safety related gaps.

### Methodology

This study is a cross-sectional one, targeting health care providers working at PHC centers in the Gaza Strip. The study targeted PHC centers staff who have direct contact with patients, including physicians, nurses, paramedics and also the PHC centers staff who have indirect contact with patients such as supervisors and managers. In total, 363 participants from randomly selected 11 governmental PHC centers filled the study survey that was developed based on the Hospital Survey on Patient Safety Culture, with a response rate of 86%. The survey was self-administered and the data was collected in the period between April 2021 to May 2021. Data was entered and analyzed using the SPSS IBM Statistics Programme version 25.

### Findings

Participants were diverse according to their PHC centers' locations, from the five governorates of the Gaza Strip. Males represented one-third of the participants and nurses represented the largest category of respondents (34.7%). Regarding working at their current PHC center, 57% of the respondents worked up to 10 years; 43% worked more than 11 years. The MCH department had the highest percentage (26 %), followed by the general clinic 24.9%. More than three-quarters of respondents indicated receiving training on patient safety (78.2%), and nearly a quarter of participants indicated that they are not aware of any protocols related to patient safety in their institutions.

The study assessed 10 dimensions that constitute a frame for the patient safety culture in health care institutions. Findings revealed that the total score for all domains was 64.9% almost identical to the findings reported previously in hospitals in Gaza and the West Bank; safety culture dimensions ranged from 52% to 83%. Whilst, staffing and teamwork within the units' dimensions had the highest percentages with 83% and 81% respectively, transition and supervisors' expectations and action dimensions elicited the lowest

percentages (52% and 53% respectively). Of the total participants, 88.7% indicated that their primary health care centers didn't report any event in the past 12 months; 69.7% of them regarded their primary health care centers as excellent and very good in relation to the safety culture.

Statistically significant differences in perceptions about patient safety culture were noticed across different disciplines with nurses and pharmacists showing greater positive perceptions. Also, the presence of safety protocols, supervision and receiving training about safety were associated with greater positive perceptions about patient safety. Male health providers tended to report more errors than females and the differences are statistically significant. Health facilities in Gaza are the least likely to report errors while Khanyonis is the most likely to report medical errors. Also, receiving training about patient safety, supervisory checks on patient safety, and having safety protocols are associated with a greater tendency to report errors.

**Conclusions and recommendations**

The providers' perceptions of the status of safety culture are not within the desired level, many safety domains have been identified for potential improvement. There is a need for enhancing the situation in Gaza PHC centers by increasing attention to promoting reporting adverse events and employing safeguarding policies. Ensuring that updated protocols for patient safety are in place, and staff complies with these protocols in their daily practices. Providing training on patient safety to health care providers as a part of educational programs at PHC centers is essential.

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## List of abbreviations

| | |
|---|---|
| **AHRQ** | Agency for Healthcare Research and Quality |
| **DM** | Diabetes Mellitus |
| **DOSHI** | Department of Safety and Health Training Institute |
| **GS** | Gaza Strip |
| **GDP** | Gross Domestic Product |
| **HH** | Household |
| **HSOPSC** | Hospital Survey of Patient Safety Culture |
| **HR** | Human Resources |
| **HT** | Hypertension |
| **MCH** | Mother and Child Health |
| **MMR** | Maternal Mortality Ratio |
| **MENA** | Middle East and North Africa |
| **MoH** | Ministry of Health |
| **NCDs** | Non- Communicable Disease |
| **NGOs** | Non-Governmental Organizations |
| **NHS** | National Health System |
| **OECP** | Organizational for Economic Co-operation and Development |
| **oPt** | Occupied Palestinian Territory |
| **PCBS** | Palestinian Central Bureau of Statistic |
| **PHC** | Primary Health Care |
| **PMMS** | Palestinian Military Medical Services |
| **PSD** | Patient Safety Domains |
| **SMS** | Safety Management System |
| **SPSS** | Statistical Package of Social Science |
| **UNFPA** | United Nation Population Fund |
| **UNRWA** | United National Relief and Works Agency for Refugees of Palestine in the Near East |
| **UNDP** | United National Development Programme |
| **UK** | United Kingdom |
| **WB** | West Bank |
| **WHO** | World Health Organization |

# Chapter One

## Introduction

Safety culture is an essential concept in improving the quality of health care services and patient safety in health care settings (Granel et al., 2022). Safety culture is conceptualized around creating work environments that support patient safety and health service providers as well (Hayashi et al., 2020). That means the work is done in a safe environment and that all safety measures are followed to preserve patients' lives and keep them away from risks and danger. Healthcare facilities borrow the safety culture concepts from high-reliability industries such as aviation and nuclear energy and received increased attention at the end of the 1990s. It is generally estimated that about 50% of adverse events in health care that can occur are preventable (Patterson, 2004). According to the World Health Organization (WHO), 4 in 10 patients are harmed in PHC and outpatient services (WHO, 2019), and according to the same source, tens of millions of patients worldwide suffer disabling injuries or death every day due to unsafe medical practices.

Given the high prevalence of medical errors and the enormous burden of their costs, and given the aspiration to improve the quality of health services and the performance of their personnel, it is necessary to pay attention to patient safety. However, patient safety is a culture that constitutes a set of components or dimensions that represent the daily routine of PHC center operations (Mohamed et al., 2016). Perceptions about these components vary from region to region and from center to center and across departments and professions (Hayashi et al, 2020). According to the Director-General of PHC interview, the Ministry of Health (MoH) in Gaza there is an increasing number of complaints about medical errors (Director of PHC in Gaza, 2021) there have been some efforts to develop a law for medical errors in Palestine which is still under development. Although PHC provides the first contact for the patient, still both providers and the public frequently underestimate the importance of PHC services (Healthcare, 2021). This underestimation leads to a primary care environment susceptible to errors in fillets such as organization, physician notification, prescription communication, and staffing (Hayashi et al, 2020).

The safety culture situation in PHC centers in Gaza has not been assessed before; therefore, this study is important for providing information about safety at these centers. A large number of surveys have been published on the culture of safety in health care in

many countries, but still few studies looked at patient safety in Gaza. This study attempts to analyze the current patient safety situation in the Gaza Strip in PHC centers. This study is expected to explore the gaps and challenges in providing safe health services in Gaza and identify some positive points and recommendations.

## 1.1 Research problem

Creating a safe environment is very important for patients and health service providers, and creating a safe environment is one of the most important and challenging tasks in health care which is becoming increasingly complex. While patient safety-related issues have been somewhat studied in Gaza hospitals, patient safety at PHC hasn't been investigated before. There is a gap in the information about how much safety culture prevails in governmental PHC centers. This study tries to fill the gap in information by studying the safety culture at PHC in Gaza. The study answers important questions about how far the PHC environment is safe, which domains of patient safety are eliciting high scores and which ones are eliciting low scores.

## 1.2 Justification

Patient safety culture must be enforced vigorously in PHC centers, which is a breeding ground for errors and unsafe behaviors that affect patient safety (Khamaiseh et al., 2020). There is a growing awareness in Gaza about medical errors, especially at hospitals but not at PHC centers. While several countries have assessed the safety situation in PHC centers, no study of safety culture has been conducted in PHC centers before in Gaza.

As aforementioned, this is the first study of its kind to handle this topic. It will be of value to many people including the researcher herself. It might help the researcher herself to improve safety practices at her work in PHC centers. The results will provide insights for policy-makers, donors, and service providers and thus form the basis for better planning, better implementation, informing, and directing the decision-making process that will help increase the quality and safety of health services provided in PHC centers. This study may provide a framework for monitoring and evaluating safety culture in PHC centers, which will facilitate discussions on how it can be operationalized at the country level and how global partners can work together to support the implementation. Being the first study at PHC, may constitute a baseline for measuring progress towards a proactive patient safety culture.

## 1.3 Study objectives

1. To assess the perceptions of health workers about the level of patient safety culture at governmental PHC centers in the Gaza Strip.
2. To identify differences in perceptions about patient safety culture in reference to organizational and staff characteristics.
3. To explore the frequency of reporting adverse events in governmental PHC centers in Gaza.

## 1.4 Study Context

### 1.4.1 Political and demographic context

Occupied Palestinian territory (oPt) consists of the West Bank (5,655 km including East Jerusalem) and the Gaza Strip (365 km, with a coastline of 40 km), with a total population of 5.1 million, of which, 3.05 million live in the West Bank and 2.05 million live in the Gaza Strip (PCBS, 2019). In 2019, the percentage of individuals, aged between 0-30 years constituted around 70% of the total population, and people aged 65 years and above constituted 3% of the total population, but their proportion is expected to reach 8% in 2050 (UNFPA, 2016). The average size of a Household (HH) in Gaza is 5.6 individuals (PCBS, 2019), 11% of HHs are female-headed HHs and 6% are having a sort of difficulty or disability.

The Palestinian people have been exposed to a wide range of vulnerabilities since the 1947–1949 Palestine War, known as the Nakba (or Catastrophe), when more than 750,000 Palestinians forcibly displaced from their original villages and cities, took refuge in the WB, the GS, and surrounding Arab countries. Refugees represent 64% of the Gaza Strip population (PCBS, 2019). The results of PCBS Labor Force Survey 2020 showed that the labor force participation rate in 2020 is 41% of the total available labor force (individuals aged 15 years and above) of which 44% in the WB and 35% in the GS (PCBS, 2021b). The Gross Domestic Product (GDP) per capita in oPt in 2019 was $ 3378 (PCBS, 2021a, 2021d), with great variations between the WB and the GS. It is worth noting that since

2006, the GS's GDP has been cut by half, with the World Bank estimating that its GDP should be four times larger today than it is (World Bank, 2019).

Due to this combination of ongoing conflict, Israel de-development policies, depressed economic growth, and rising population, Gaza has one of the highest unemployment rates in the world and more than half of its population lives below the poverty line. Between 2007 and 2018, the regional Palestinian economy in Gaza grew by less than 5%, and its share in the Palestinian economy decreased from 31% to 18% in 2018 (United Nations Conference on Trade and Development (UNCTD), 2020). As a result, GDP per capita shrank by 27% and unemployment increased by 49%, the poverty rate in Gaza jumped from 40% to 56% in 2017 and the poverty gap increased from 14% to 20%, and the annual minimum cost of lifting people out of poverty quadrupled from $209 million to $838 million (ibid). Also, as a result of Israel's de-development policies, poverty, and unemployment, less than half of the HHs in GS are food secured (PCBS, 2018) which has significantly increased during the Covid-19 pandemic (Abu Hamad, et al 2021a) and crises. The literacy rate among Palestinians (15 years old and above) is very high (above 96.4% in 2017) and slightly higher among males (98.4%) than females (94.4%) (PCBS, 2018).

While oPt is considered by the United Nations Development Programme (UNDP) to fall in the high human development category (0.708-rank 114 on the Human Development Index), the Palestinian people remain highly vulnerable (UNDP, 2020). Israel's protracted occupation, characterized by ongoing violence and severe restrictions on the movement of both people and goods, 12 years of enslaving the GS, has resulted in highly fragmented and distorted local economies that are overwhelmingly dependent on external aid (Jones and Abu Hamad, 2016). In addition, it weakened social networks, increased psychological and emotional difficulties, and resulted in high poverty rates (Samuels, Jones and Abu Hamad, 2017). Internecine violence between Fateh and Hamas has put additional stress on Palestinian society. The subsequent blockade imposed on GS in 2007 till now has severely constrained sectors such as health, education, social services, industry, agriculture and construction, which were already struggling before these events (Abu Hamad, 2021).

### 1.4.2 Health status and health services

Compared to other countries at a similar level of economic development, the Palestinian population's overall health outcomes are relatively good, partly due to the strong performance of most basic public health and primary health care (PHC) functions (Abu Hamad, Jones, and Gercama, 2021). Currently, alongside the demographic transition, oPt is going through epidemiological transitions. This refers to the change in disease patterns from most infectious diseases to NCDs such as cancer, heart disease, stroke, injuries, DM, and HTN (UNFPA, 2016). In both the WB and the Gaza Strip, NCDs including heart diseases, cancer, HTN, and cardiovascular diseases, and DM are replacing the traditional enemies of infectious diseases as the leading causes of death (MoH, 2021a). Also, NCDs are the major causes of morbidity in oPt, resulting in a high direct cost of care, high indirect cost in loss of production, disability-adjusted life year, and much societal stress.

NCDs have a heavy shadow on total morbidity and mortality in oPt with nearly 75% of the disease burden (MoH 2020b; MoH, 2021a). The crude death rate in oPt is 2.6/1000 (ibid), whereas in 2019, cardiovascular diseases were responsible for 30% of deaths, cancer for 16% of deaths, and stroke for 11.3% of deaths. Complications of DM also represent 12% and pulmonary diseases represent 5% of all deaths. The picture didn't differ significantly in 2020 although Covid-19 emerged as the fifth leading cause of death. The disease pattern in oPt anticipates an increase in the share of NCDs given that the elderly population above 65 years is expected to double in ten years (UNFPA, 2016). On the positive side, oPt performs better than many countries in the Middle East and North Africa (MENA) region on key indicators: the infant mortality rate is low, the maternal mortality ratio (MMR) is also low and immunization coverage is high; at 95% for most vaccines (Abu Hamad, Jones, and Gercama, 2021). There is near-universal coverage of antenatal care, and post-natal care, all Gazan women deliver in health facilities, and there has been a noticeable reduction in the fertility rate (ibid). Health insurance is mostly available (around 78% of HHs in the oPt are medically insured), especially for Gazans (95%), but the coverage does not meet people's needs and expectations; few medicines are covered by insurance or available, there are limited specialist services and long waiting lists for surgeries (PCBS, 2018; UNFPA, 2016). While people are generally able to access basic health services when the area is not witnessing acute escalations of the emergency situation, access becomes very challenging during renewed outbreaks of conflicts and emergencies. Access to advanced services

(such as oncology, radiotherapy, advanced cardiac and neurosurgery) remains very challenging in all circumstances. Also, the health care system is curative rather than preventive and staff are mostly disease- oriented (Abu Hamad, Jones, and Gercama, 2021).

The four major health care providers in oPt are the MoH, the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), Non-Governmental Organization (NGOs) and private for-profit operators (Abu Hamad, Jones, and Gercama, 2021). The MoH is responsible for a significant portion of primary and secondary health care delivery, including NCD services (MoH, 2017), and is also the regulator and supervisor of all health services in oPt. UNRWA plays an important role in providing PHC services through its centres and financially supporting secondary and tertiary services for registered Palestinian refugees (UNRWA, 2021). Through a large network of health centres, NGOs also play a complementary role in supporting vulnerable groups with health needs. The private sector is largely unregulated and tends to focus on obstetrics and surgical intervention (UNFPA, 2016).

The total expenditure on health in oPt has increased from USD 397.2 million in 2000 to USD 1594 million in 2018, (around 12% of the GDP) indicating an increasing trend of spending on health (PCBS and MoH, 2020). Expenditure on drugs and pharmaceuticals represents a large proportion of healthcare spending in oPt; around 20% of total spending, while it is only 8% in Norway and Denmark (UNFPA, 2016). The prominent irrational use of drugs in oPt through poly-pharmacy, double prescribing, and overuse of medication leads to wasting of the already sparse resources and has health hazards (ibid). The General Directorate of Pharmacy at MoH and the pharmacy department at UNRWA launched many initiatives to rationalize prescribing practices and much progress has been achieved in this regard. The average health expenditure per capita in oPt reached 344 in 2018. The PCBS and MoH Health Account Book (2020) shows that, of the total expenditure on health, 67% was spent on curative services and only 3% was spent on preventive and public health services (including immunization). Regarding sources of funds for the health sector, the contribution of the government in oPt is limited, at around 37%-40% (72% in Turkey), while the contribution of HHs is around 40%-44%, compared with 19.5% in The Organization for Economic Co-operation and Development (OECD), constituting high burden on families, especially economically disadvantaged ones (PCBS and MoH, 2020). Also, purchasing services from non-MoH providers consumes a great portion of resources spent on a limited number of patients, raising important equity-related questions.

### 1.4.3 PHC services

The most recent MoH annual health status report (2021), shows that there are 749 PHC centers in oPt (MoH, 2021a), of which 65 belong to UNRWA (22 in the GS and 43 in the WB), 467 belong to MoH (from which 54 in GS) and 192 centers' managed by NGOs, which are mainly concentrated in the WB. The ratio of population per PHC center is higher in GS (12,788 persons per center) than in the WB (5819) (ibid). MoH shoulders a greater burden in the GS than NGOs do, which contribute more to service provision in the WB. Also, despite having a limited number of facilities, UNRWA covers a great deal of refugee needs, especially in the GS (ibid). The private sector is not well-regulated and most of the private clinics are not registered. In general, the contribution of the private sector is greater in the WB, than in the GS. Most of the PHC facilities in Gaza are level three and level four as reported by the Director of PHC in Gaza (personal interview)

Despite the noticeable discrepancies in the reported health provider density per population, there is a general consensus in the literature that the current distribution of human resources for health per population is fairly acceptable in most health professions in oPt in comparison with other Arab and Middle Eastern countries living with similar economic conditions (UNFPA, 2016). Interestingly, health facilities are staffed with young generations who constitute an asset in the long run. Moreover, the gender balance is less biased towards males than it used to be (females represents 20.4% of physicians, 35.9% of dentists, 63.6% of pharmacists and 56.9% of nurses) with the potential of increasing women's enrolment in the working force, especially in senior positions in the future, as their current representation in the education sector is even higher than their male counterparts (PCBS, 2021c; UNFPA 2016). PCBS (2021a) reports that there were 13,507 ever licensed physicians (8386 in the WB and 5121 in the GS) at a rate of 2.8 physicians per 1,000 inhabitants in the country as a whole, with better situation in the WB (3 per 1000) than the GS (2.5). The same source indicates that there are 19,946 ever registered nurses, almost equally distributed between the WB and the GS. Nurse proportions according to the population are significantly low with around 4 nurses per 1,000 people; 10 in the UK and U.S.A (UNFPA 2016). PHCs in the MoH in Palestine provide first, second, third and four levels of care (Annex 1).

## 1.5 Définitions of terms

- **Patient safety culture:**

"The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management (Sugnadam, 2020).

- **Patient safety**

Is defined as the avoidance and prevention of patient injuries or adverse events resulting from the processes of health care delivery (Sugnadam, 2020).

- **An event**

Is defined as any type of error, mistake, incident, accident, or deviation, regardless of whether or not it results in patient harm (AHRQ, 2012).

- **An adverse event:**

Is an injury to a patient caused by medical management rather than the underlying disease, which prolongs the hospitalization and/or produces disability at the time of discharge (Saberi et al., 2014).

- **Error**

"Failure of a planned action to be completed as intended or use of a wrong plan to achieve an aim; the accumulation of errors results in accidents (Saberi et al., 2014).

- **Handoff**

The transfer of information (along with authority and responsibility) during transitions in care across the continuum; includes an opportunity to ask questions, clarify and confirm (Suganandam & Sc, 2020)**.**

- **Large PHCs**

Health centers provide four levels of health care services, provide preventive services as maternal and child health care, immunization, family planning, and health education. On the other hand, they provide treatment services as general medicine, dentistry, specialty clinics, a specialized medical laboratory, and radiology. (WHO, 2021).

**Small PHCs**

PHCs provide some of health care services; preventive services such as maternal and child health care, immunization, and health education. Moreover, they provide treatment services as general medicine and laboratory (in some clinics) (WHO, 2021).

# Chapter Two

## Literature Review and Conceptual Framework

### 2.1 Literature review

#### 2.1.1 Concept of safety culture

Patient safety culture becomes a very important issue at PHC centers to reduce medical errors, negligence, and adverse events, so it should be assessed at PHC centers in through measuring its' main dimensions to sustain the strong dimensions and enhance the weak ones and take into consideration the factors that affect the delivery of safe care.

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management (Martin, 2015). The term safety culture first arose after the investigation of the Chernobyl nuclear disaster in 1986 which led to safety culture being defined as "an organizational atmosphere where safety and health are understood to be and is accepted as, the number one priority" (Zwart, 2011). Because the problem is that safety and health do not exist in a vacuum isolated from other aspects of organizations (Wilson & Pietro, 2017), the safety culture refers to the extent to which individuals and groups will assign their responsibilities for preservation, enhancement, and communication of safety concerns (Barbaranelli& petitta, 2015). Also, their abilities to learn, modify, and adjust behaviors based on lessons learned from mistakes, and rewarding employees due to these values.

Health care often is delivered in a dynamic environment with complex interactions among patients, medical staff, infrastructure, equipment, policies and procedures (Department of safety and health training, 2012). However, the patient safety culture effort's primary goal is the prevention, avoidance and mitigation of patient harm caused by deficiencies in the processes of patient care delivery and minimizing medical errors or different unsafe acts. It also ensures healthcare stakeholders have been encouraged to take their responsibilities by putting rules, taking decisions and implementing procedures.

Patient safety culture encompasses the processes and systems that protect patients from errors caused by staff mismanagement (Nordin, 2015). Open communication, teamwork

and acknowledged mutual dependency are some components of patient safety culture (El-jardali et al., 2010). Supporting components to a positive safety culture is the ability of the leaders to set clear goals and establish the values and practices necessary to keep all employees on target, stimulate incident reporting and analysis by professionals which is a beneficial tool for safety improvement.

### 2.1.2 Values of having safety culture

Developing a positive health and safety culture where risks are managed sensibly will reduce accidents and ill health, plus their related costs; bring about improvements in overall efficiency, quality, and productivity; meet customer demands, and maintain credibility. People who feel valued and involved in decision-making play a big part in a high-performing workplace (Burton, n.d., 2015). Empowering your workforce, giving them the right skills, and getting them involved in making decisions, showing them that you take care of their health, safety, and well-being seriously. Health care workers raise concerns and offer solutions, lower accident rates; a more positive health and safety climate; greater awareness of workplace risks; and better control of workplace risks. Improved safety culture and teamwork can help health systems reduce patient harm across entire hospital systems and multiple harm types (El-jardali et al., 2010).

### 2.1.3 PHC

PHC is a whole-of-society approach to health and well-being centered on the needs and preferences of individuals, families, and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health and wellbeing (MoH , 2020).

It provides whole-person care for health needs throughout the lifespan, not just for a set of specific diseases. PHC ensures people receive comprehensive care ranging from promotion and prevention to treatment, rehabilitation and palliative care as close as feasible to people's everyday environment (Phc & Hogg, 2014).

PHC is rooted in a commitment to social justice and equity and in the recognition of the fundamental right to the highest attainable standard of health, as echoed in Article 25 of the Universal Declaration on Human Rights: "Everyone has the right to a standard of living

adequate for the health and wellbeing of himself and of his family, including food, clothing, housing and medical care and necessary social services (Phc & Hogg, 2014).

The concept of PHC has been repeatedly reinterpreted and redefined. In some contexts, it has referred to the provision of ambulatory or first-level of personal health care services. In other contexts, PHC has been understood as a set of priority health interventions for low-income populations (also called selective PHC). Others have understood PHC as an essential component of human development, focusing on the economic, social and political aspects.

PHC centers are a fertile environment for the occurrence of medical errors, because of direct communication with patients that helps increase the chance of error occurrence, the availability of a safe environment for patients free from medical errors is necessary and very important.

It's very likely to occur medical errors at PHC centers. The perceptions of patients in the health sector differ from other sectors, because the patient always expects to obtain better health, and the possibility of error is not present among patients. There are no numbers about medical errors in PHC centers in Gaza. The medical errors are attributed to the blockade imposed on Gaza for more than 15 years and the lack of necessary materials and medicines.

### 2.1.4 The importance of creating a safe environment

Creating a safe work environment in PHC centers without risk to service providers and patients leads to increased confidence in the health system and improved quality of services provided. This means having the tools and information necessary to take all the measures that reduce or prevent errors and how to deal in case something goes wrong (Barbaranelli, 2015). The trend towards creating a safety culture has increased in many countries, and many studies and laws have been conducted, which help in understanding the nature of PHC centers and understanding the multiple causes of errors and to what extent the safety culture is applied in PHC centers and what are the methods that help reduce the occurrence of errors (Lefranc et al., 2016).

Patient safety culture encompasses the processes and systems that protect patients from errors caused by staff mismanagement (Nordin, 2015). Open communication, teamwork and acknowledged mutual dependency are some components of a patient safety culture (El-jardali et al., 2010). Supporting components to a positive safety culture are the ability of the leaders to set clear goals and establish the values and practices necessary to keep all employees on target, stimulate incident reporting and analysis by professionals which is a beneficial tool for safety improvement.

### 2.1.5 Safety culture development

Despite notions that safety culture cannot easily be created or engineered. The creation or enhancement of a safety culture is the task of all organization employees dependent on the improvement of the various organizational characteristics which impact the safety management practices (Tayor& Pandian, 2016). Hudson's (2001) evolution of safety culture accords with the work. Where he notes that there are 3 main cultural developments, the first of which is ensuring that training programs, work conditions, procedures and processes comply with regulations (passive compliance). The second is involving workers in the task of regulatory compliance and encouraging them to take personal responsibility (active compliance) and the third is teaching individuals to detect errors and benefit from the recommendations to act in safely behavior.

### 2.1.6 Can safety culture be changed?

Organizational culture was formed over years of interaction between the participants and grows over time. So, if people are comfortable with the current organizational culture, changing the accepted organizational culture can feel like rolling rocks uphill (Hodgen & Bierbaum., 2017). When people in an organization are persuaded by the importance and the positive effect of the culture change on either themselves or their outcomes, they will adopt it and share in leading the change process and also supporting the organization's change requirements.

On one hand, the fact that safety culture has been cited as a contributing or causal factor in many accidents suggests that safety culture can be changed, but factors that are not generally cited as "causal" to accidents can't be manipulated or changed (Rajput et al., 2013). Hence evaluation of the current situation of safety in PHC centers and its' related

problem have to be the first step in the change's plan in order to tackle the serious awful behavior and tangible effect of the applied change.

Change the culture at PHC centers on a series of six specific steps evaluating the situation and determining the end goals, analyzing the existing culture and sketching the desired culture, analyzing the gaps between what exists and what is desired, and developing a plan for the culture, implementing the plan and evaluating the changes and the new efforts to go further. So, organizations have to make changes when it is necessary and the idea is to begin with easy changes that work towards creating a more in-depth culture change (Rajput et al., 2013).

### 2.1.7 Subculture

Within PHC centers there are often different groups who have their own styles, attitudes, and skills and have different levels of concern for safety issues in the effect of their own safety subculture. Previous research suggests that groups view safety through their own subcultures, rather than sharing an overall view of safety (Abiodun & Toyinbo, 2021). Subcultures may develop when employees working in the same area have different experiences and knowledge of the situation conditions.

Although the presence of subcultures within PHC centers can lead to misunderstandings and ultimately variance between individuals' and groups perceptions (Department of safety and health, 2012) did not see the existence of two different cultures as undesirable and felt that improved communication between the two would help to bridge the gap between groups. So, subcultures can have a positive influence on safety, by bringing different perspectives and diverse means to enhance safety problems.

### 2.1.8 Near Misses

Medical errors do not lead to observable injury to the patient in most cases. However, the situations that did not cause harm to patients, but could have done, are described as ‘near miss’(Spall et al., 2015). Because near misses occur more frequently, monitoring and analysis of these events provide quantitative insight into the distribution of factors that contribute to the occurrence and recovery from errors (Sherief et al., 2021). So near-miss reporting is a vital part in the way to improve the safety culture by sharing more near-miss

reports and learning from the extracted lessons of others' errors instead of being surprised and consuming time repairing them, when they are suddenly faced.

### 2.1.9 Safety dimensions

**Learning culture**

The organization learns from accumulated experience by systematically gathering and analyzing near misses, and medical errors and encouraging the reporting of incidents (Health and Safety Laboratory, 2011); how procedures are implemented during normal working practices can help identify any gaps between how supervisors needed the procedures to be applied and how they are done by staff.

A culture of learning exists within a PHC center when it seeks to analyze root causes of medical errors and near misses and learns from that to implement a performance improvement process into the healthcare delivery system. So, when PHC centers on safety culture matures, learning culture will become more proactive in identifying and modifying unsafe acts or procedures to prevent errors or any type of harm.

PHC centers that are “data-driven” have the opportunity to learn not only from failures but also from successes. Learning also can begin when leaders demonstrate a willingness to learn, not only from internal sources but from sources outside health care that have developed and exhibited successful safety cultures (Hodgen & Bierbaum, 2017).

However, the learning culture creates safety awareness among PHC centers staff and promotes an atmosphere of learning through educational initiatives and programs that should include understanding of the value of safety culture assessment and how to construct it, when to start and who is responsible for. According to a study was conducted in Kuwait PHC centers, the learning culture obtained 75% (Ghobashi et., 2014), according to a study was conducted in Alexandria PHC centers, the learning culture obtained 73.3% (Mohamed et al., 2015), according to study conducted in Tunisia PHCs, learning culture obtained 48.7% (Tlili et al., 2020), and according to Al-Saqqa study that conducted in Gaza hospital, the learning culture obtained 72% ( Saqqa, 2015).

**Management safety commitment**

Management safety commitment has been identified as a key factor in appraising the safety culture at PHC centers in the healthcare sector Safety commitment of management is evidenced by written policy, effective communication, exemplary practice, and good supervision (Ali, Shariff, 2017). It was believed to affect safety culture through two mechanisms: the direct effect where the manager serves as a role model to affect employees' safety behaviors; the second is the indirect effect where the managers reinforce the norms and attitudes of safety practices (Barbaranelli,2015). Therefore, how management level's attitudes are transmitted to employees, commitment to safety is ensured to be perceived by them precisely. The written statements of policies, protocols and guidelines help the PHC managers in assessing and monitoring the PHC staff behavior to control and eliminate any unsafe acts.

To achieve the desired patient safety culture, management at different levels and decision-makers should base on well-defined theoretical and operational concepts. At first, it has to be defined what patient safety is, i.e. what the desired result of safety is because safety can be understood in several different ways (Mohseni et al. 2018). Then, define the systematic processes that are needed to steer and develop patient safety and after that, a practical identification of roles, tasks, and responsibilities is adopted (Mohseni et al. 2018).

However, a Safety Management System (SMS) is inevitably, but often implicitly and related to the three previous concepts. So, the management of safety should influence all of the PHCs levels and activities, including employee selection, equipment adjustment, protocols and communication ways activation, training and motivation strategies and others. Many studies measured this domain of patient safety in many health care centers in different countries, and the findings show different results. According to the study was conducted in Tunisia PHCs, the management safety commitment obtained 51.1% (Tlili et al., 2020) it needs more effort to improve, according to the study was conducted in Alexandria PHCs, the management safety commitment obtained 80% ( Mohamed et al., 2015) which is good, according to the study was conducted in Kuwait PHCs, the management safety commitment obtained 67% (Ghobashi et al., 2014). And according to the study conducted in Gaza hospitals, the management safety commitment obtained 62% (Saqqa, 2015).

**Team manager and supervisor**

The team leader is the person who is appointed, elected, or informally chosen to direct and coordinate the work of others in a group (Taylor & Pandian, 2016). Team leaders also called supervisors or front-line managers, are typically responsible for a group of people working together to achieve a common task. In healthcare, there are leaders of established groups, such as ward charge nurses, or leaders of temporary groups, such as operating theatre teams (WHO, 2009). A lot of studies have measured this domain in different countries, and the results appeared the follows; according to the study was conducted in Oman, the supervisor and team manager obtained 60% (Mandhari et al., 2014) this domain needs a lot of effort to improve safety at PHCs, according to the study was conducted in Tunisia PHCs, the supervisor and team manager obtained 53.4% (Tlili et al., 2020) also its very week and it needs hard work, according to the study was conducted in Kuwait PHCs, the supervisor and team manager obtained 53% (Ghobashi et al., 2014). And according to the Al-Saqqa study that was conducted in Gaza hospitals, the supervisor and team manager obtained 62% (Saqqa, 2015).

The supervisor generally has responsibilities for task completion by communication and monitoring of the team members. Only few studies have investigated leadership safety behaviors in healthcare, but supervisory safety practices have been found to decrease the number of minor injuries and positively influence staff safety culture (WHO, 2009).

For supervisors, most leadership theories indicate that the leader has to concentrate on both the task and on the social needs of the team members (Zwart et al., 2011). Another popular leadership theory for first-level managers, the situational model, states that for optimal team performance, the leader needs to assess the level of maturity of the team, in terms of their task competence and commitment (Oah et al., 2018).

Previous studies suggested that supervisors need to reinforce staff safe behaviors, emphasize safety over productivity, participate in safety activities and encourage employee involvement in safety programs and initiatives. found that less successful teams exhibited significantly less leadership behavior, more unsafe acts, and explicit performance distribution (Smits & Wagner, 2011). According to a study conducted in PHC centers in Alexandria, supervision evaluation showed that; 75 % of the PHC centers enhance

supervision (Mohamed et al., 2015), according to a study conducted in Gaza hospitals, the supervision evaluation obtained 62% (Saqqa, 2015).

**Communication**

The more efficient communication channels in PHC centers, the greater ability to learn about internal patient safety culture, the greater potential for control and coordination of the PHC centers, and the lower number of hierarchical levels with more employees per supervisor. Therefore, communication is essential for the workplace and for the delivery of high quality and safe work. It provides knowledge, institutes relationships, and establishes predictable behavior patterns (Martin & Ciurzynski, 2015).

The standard model of communication has a sender encoding an idea into a message, transmitting it to one or more receivers who then decode it back into the original idea. Communication is typically described as one-way (e.g. in written instructions) or two-way (e.g. conversations, phone calls, email exchanges. The greater benefit of two-way communication is the feedback way, which enables the sender and the receiver to ensure that the target meaning of the information has been clearly understood (Skarbaliene et al., 2019). (Health and Safety Laboratory, 2011) found that communication featured as a prime cause in many reported incidents. In addition, communication has become fundamental for learning and for putting into practice the process of managing and planning in PHCs. It has been argued that one thing many of the major accidents that have occurred share in common, is the fact that organizations often systematically fail to analyze precursor events and communicate it to the relevant people within the organization, usually management (Health and Safety Laboratory, 2011). A lot of studies was evaluated communication in many health care centers in different countries, and the results appeared the follows; according to the study was conducted in Kuwait, the results of communication assessment at PHCs 41% (Ghobashi et al., 2014) needs a lot of efforts to improve the communication at the PHCs, according to the study was conducted in Tunisia PHCs, the communication assessment was obtained 42% (Tlili et al., 2020), according to the study conducted in Alexandria, the communication assessment was obtained 66.7% ( Mohamed et al., 2015). And according to the study conducted in Gaza hospital, the communication assessment obtained 62% (Saqqa, 2015). According to these results, there is a necessary need to improve communication in PHC centers.

**Staffing**

In an understaffed facility, employees are overworked and fatigued which increases the danger of adverse events caused by human errors and system deficiencies, so the availability of personnel is a major concern for many PHC centers (Sherif et al.,2021). Staff shortages increase stress in the workplace, and stress increases the chance of cognitive failure (Abiodum & Toyinbo., 2021). So good staffing is considered a key to decreasing errors and preventing adverse events when patients are treated safely by dedicated healthcare staff. It has been found that short-staffing increases the nurse's risk of experiencing burnout which can lead to an increased turnover in employment, staffing levels make a difference to patient outcomes (mortality and adverse events), patient experience, quality of care, and the efficiency of care delivery. Safe staffing is essential to the overall health care system. Staffing affects the ability of all health staff to deliver safe, quality care in all practice settings. By eliminating unsafe staffing practices and policies, we can provide better health care for all (Ansah et al., 2021).

Staffing encompasses all those factors that can influence the PHC staff and their behavior at work and the ability to work individually or in teams towards the PHC mission. A study shows a higher ratio of staff to patients increases patient safety and there is strong evidence that a shortage of nursing staff is associated with an increased length of hospital stays (Ansah et al., 2021).

So staffing and human resource strategies for the healthcare workforce should be developed to address the progress of needs, assessment of the existing gaps, determine the staff shortage, supervise and train the junior staff for raising the patient safety awareness in the health care system. A lot of studies was measured staffing dimension in many health care centers in different countries, results showed the following; according to the study was conducted in Tunisia PHCs, the staffing assessment was obtained 34.7% (Tlili et al., 2020), According to the study was conducted in Kuwait, results of staffing assessment at PHCs 41% (Ghobashi et al., 2014) According to the study was Alexandria, the staffing assessment was obtained 60% (Mohamed et al., 2015). And according to the study conducted in Gaza hospital, the staffing assessment obtained 58% (Saqqa, 2015).

## Handoff and transition

A handoff, or patient transition in healthcare from one provider to another, involves the transfer of information, main responsibility, and authority between providers.

The concept of a handoff is complex because it includes communication between care providers about patient care, records, and information tools, change of health provider (Accreditation Canada, 2008), and transferring workload and responsibility from one or a set of caregivers to oncoming staff (Cohen & Hilligoss, 2018)Therefore, the complexity and quality of the type of information, and the various caregivers impact the effectiveness and efficiency of the handoff as well as patient safety (Friesen, et. al. 2008).

As health care has become more comprehensive and specialized, with greater numbers of clinicians involved in the process of maintaining patient care, more handoffs and transitions of staff occur may lead to gaps in patient safety. A study of incidents reported by surgeons found communication breakdowns were a contributing factor in 43% percent of incidents, and two-thirds of these communication issues were related to handoff issues (Mohsenia et al, 2018). Therefore, the handoff is recognized as a critical clinical activity that occurs at the unit level (e.g., between nurses or physicians) or the hospital level (e.g., between hospitals for a patient transfer) (Hayashi et al., 2020). A lot of studies was measured handoffs and transition dimension in many health care centers in different countries, and the results appeared the follows; according to the study was conducted in Kuwait, the results of handoff and transition assessment at PHCs 47 % (Ghobashi et al., 2014), according to the study was conducted in Alexandria, the handoff and transition assessment were obtained 75% (Mohamed et al., 2015). And according to the study conducted in Gaza hospital, the handoff and transition assessment obtained 64% (Saqqa, 2015).

Long hours working in different sites will affect the staff work, decrease the quality of health services, and increase adverse events. 60% of participants had been working in hospitals and other sites, long working hours and working in more than one site can be associated with staff health status and care quality, as well as work-related hazards. However, little is known about the association of working in more than one site and patient safety competencies with adverse nurse outcomes. In this cross-sectional descriptive study, convenience sampling of 380 nurses from three tertiary care hospitals in South Korea. Data were collected using structured questionnaires from May to June 2016. Hierarchical linear

regression analysis was used to identify the association of working in more than one site and the degree of patient safety, it was found that nurses who work in more than one site and for long working hours make more adverse events than others who work in one site for adequate hours. This is due to fatigue and stress ( Candina & Smith, 2019) not taking their full salary which will affect their psychological status and stress level, patient safety and quality of services provided at PHCs and that will affect the patient's safety.

To encourage workers to be more productive, but it has recently begun to work to pay performance for maintaining a safe work environment, free from errors, that the employee's obtaining an appropriate salary that meets his needs relieves pressure and burdens on him, and encourages the employee's focus on how to do the work correctly Without errors that may affect the health of the patient and staff (Griffin al el., 2016).

**Reporting errors**

Such a shift from a culture in which workers are discouraged from reporting errors to one in which they are encouraged to report errors or failures may be accomplished by stopping the practice of focusing blame on the health-care workers at the 'sharp-end' and focusing instead on processes and procedures to improve patient safety that cut across individual units or PHC center functions (Listyowardojo et al., 2012).

PHCs should be transparent in reporting safety indicators, and results should be posted and updated promptly. Focusing on actual adverse events should be the first step in improving patient safety because this strategy deals with high-profile cases, which is more focused and more effective in using currently limited healthcare system resources (Sorra and Famolaro, 2011).

Therefore, successfully preventing unsafe events depends on comprehensive systematic data collection, precise analysis, and wide and effective participation. Also, there are two types of reporting systems: mandatory reporting systems focus on serious and fatal incidents and voluntary systems that are used often for less severe events. Although both systems require supporting and cooperation of healthcare staff (Sorra & Famolaro, 2011), there is some debate about the value of voluntary reporting systems in case of the fear of blame and the legal responsibility that will make healthcare staff choose not to disclose medical mishaps until a positive culture is created.

Using technology can enhance reporting to the extent that humans plus technology is more powerful than either is alone. Hence, PHC centers should develop a secure web-based system that allows staff, patients, families, and visitors to report comments from any computer in the PHC centers or homes by using the internet (UNRWA, 2017). Assessment of reporting errors was conducted in some health care centers in different countries, according to a study was conducted in Alexandria, reporting events assessment was obtained 60% (Mohamed et al., 2015), and according to the study was conducted in Gaza hospital, reporting events assessment obtained 64% (Saqqa, 2015). It needs more effort to improve the system of reporting errors in PHCs, reduce the number of errors, and learn from the errors.

**Teamwork**

A team is usually defined as a distinguishable set of two or more people who interact, dynamically, interdependently, and adaptively toward a common and valued goal, objective, and mission, who have each been assigned specific roles or functions to perform (Saberi et al., 2015). It is known from studies that individual behavior can be influenced by being a member of a team by the group's behavior, such as willingness to interact or to change another team member's behavior when an error is made.

Therefore, many factors influence the team cohesion including the size (number of members), the status hierarchy, rules and accepted norms for behaviors (group structure), what happens when the group works together (group processes or dynamics), and how the group is lead e.g. by the team leader or supervisor (WHO, 2009). These factors differ depending on the type of team and where that team operates (Gençer, 2019), and how they can influence the team's performance.

**Variations in the perception of safety culture**

The cumulative evidence demonstrates that working conditions are important in influencing patient safety and deserve careful attention from healthcare professionals or between clinicians and managers (Leticia et al., 2015), this may compromise patient safety because variations in safety culture may lead to unmet expectations and communication breakdowns (ibid). So, understanding how different groups perceive safety culture is thus an important step in determining what and for whom institutional safeguards should be

implemented to enhance patient safety (Listyowardojo, et. 2011). However, few prior studies have compared perceptions of safety culture's variables of all professional groups within PHCs. The fact that nurses and clinical workers perceived less institutional commitment to safety than did physicians, may suggest that they are more likely to observe deficiencies in the PHCs infrastructure related to patient safety than are physicians (Leticia et al., 2015). Nurses and clinical workers often spend more time with patients than do physicians and thus may receive complaints and hear opinions from the patients' perspectives which influence their perceptions of safety procedures. On the other hand, paramedics professionals may not feel directly involved in patient care practices and this may influence their ratings of institutional commitment to safety (Listyowardojo, et al. 2012).

Physicians and nurses are also likely to differ in their perceptions of the usefulness of safety rules and guidelines for patient safety and clinical practice. suggested that compliance with safety rules and guidelines plays a greater role in nurse clinical practice than in physician practice (I). Physicians tend to ignore (Norden et al,2010) safety rules and guidelines and use the non-routine nature of events (i.e. that each patient needs different clinical treatment) as an argument against conforming to safety rules and guidelines. It may be this greater emphasis on safety rules and guidelines that are perceived as part of nurse professionalism and safe clinical practice that makes nurses more critical than physicians of institutional practices about patient safety (Listyowardojo, et al. 2011).

The relatively negative nurse ratings of the dimensions 'working conditions' and 'perceptions towards the PHCs' are unsurprising given that work dissatisfaction and high turnover are well-documented problems in the nursing profession. This is especially problematic when the PHCs management focuses on improving productivity (Abiodun & Toyinbo, 2021), rather than patient safety. Improving the working conditions of nurses, for example, scheduling more reasonable working hours and providing better psychological support, can improve nurses' work satisfaction and lead to better patient safety outcomes (Wiskow et al., 2017).

## 2.2 Conceptual Framework

Discussions around culture are usually complicated as it deals with assumptions, feelings, and beliefs that guide people's behavior. Since PHC centers are a system that includes a series of activities and procedures in continuous coordination, and the involvement of a group of people, the culture of the organization is a set of values, morals, and attitudes according to which its members tend to think, act and relate to each other (Sugandam, 2020).

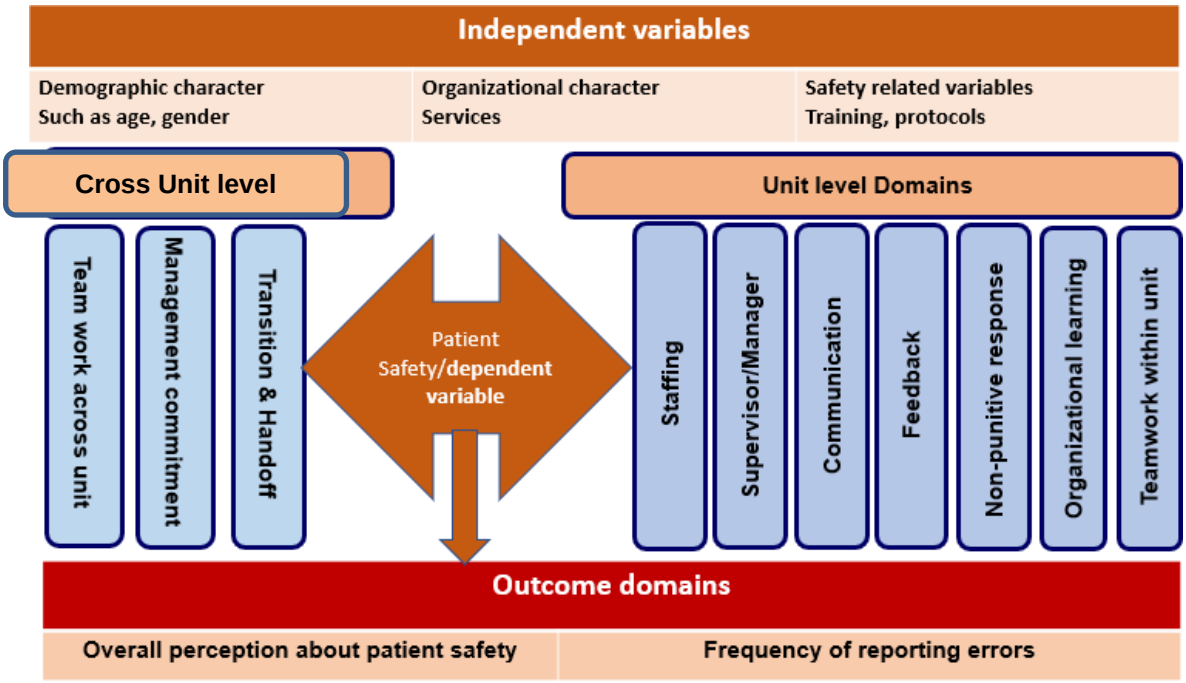


**Figure 2.1: Conceptual framework of patient safety culture in PHC centers**

The following paragraphs demonstrate the main dimensions that together constitute the patient safety culture at PHC centers. These dimensions include PHC centers related to patient safety culture

### 2.2.1 PHC centers related safety culture domains

**Cross unit level domains**

**Transition and handoff**

Handoff means shifting the responsibility from a staff member or group to another member or group in a manner that can ensure continuity and introduce safe services. It depends mainly on scheduling and coordinating the staff activities and arrangement of patients' appointments and requirements.

**Management commitment**

It refers to the application of PHC centers' management of the rules and regulations that reflects their persuasion with the safety requirements. It is one of the substantial roles of building any culture as the managers and leaders adopt the vision of the PHC centers, and encourage their employees toward providing well-safe services. (Agency for Healthcare Research and Quality (AHRQ),2009).

**Teamwork (unit and cross-unit domain)**

PHC centers like any other highly reliable organizations significantly depend on teamwork to accomplish their duties in the best and safe manner. Teamwork means that two or more persons work interdependently towards a common goal. Therefore, the team's final results are the outcome of the team's collective synergy efforts where the whole together effort will be better.

**Unit level domains**

**Organizational Learning**

Organizational learning is described in several ways. It is said to be the cumulative product of the learning of small groups or teams and the collective learning that occurs in an organization that can impact an organization’s performance. It is also described as a process of increasing organizational effectiveness and efficiency through shared knowledge and understanding, which is a system-level phenomenon that stays in the organization regardless of the changes in health care teams or team members (Ratnapalan, 2014).

**Non-punitive response**

As humans, we all make mistakes. In a primary health care setting, a simple human error can have very serious consequences for the patient. That's why the staff are encouraged to report errors or near-miss events into the patient safety reporting system. In doing so, system issues can be addressed and changes can be made to close gaps in safe patient care. The system is not intended to record mistakes to discipline staff. However, the Safety Culture Survey results indicated that staff was worried that the system would be used in a disciplinary manner and some are scared to admit they've made a mistake for fear of punishment.

**Feedback**

Healthcare professionals seem to be positive about feedback on patient safety culture and its effect on stimulating patient safety culture improvement. To optimally tune feedback on patient safety culture to healthcare professionals to stimulate change, the following might help: pay attention to the understandability of outcomes for its intended users, and create feedback that is tailored towards specific primary health care centers. For primary health care centers, an important aspect to keep in mind is that the patient safety culture assessment and feedback on the outcomes are just the beginning of realizing change in this area, rather than the final destination.

**Communication**

Safety culture is influenced by various factors, one of which is communication, which plays a significant role in health services. Effective communication between nurses and doctors is a two-way process that involves sending appropriate and understandable messages accepted and understood by others, thereby enabling a supportive working environment and patient safety. The Joint Commission stated that poor communication accounts for two-thirds of sentinel incidents in health care. Furthermore, inadequate communication between nurses and doctors leads to dissatisfaction and a lack of autonomy among nurses.

**Leadership and supervisor**

The leadership of the PHC center puts the first impression on his employees or followers to handle the overall objective of their PHC centers. So, to ensure a good safety culture, managers and supervisors have to consider this issue in their managerial duties.

**Staffing**

It means the recruitment, deploying, and retaining of qualified employees in sufficient quantity and qualified staff members to accomplish their goals. Also, what we need to achieve depends on what we have for that. So human resources are the drivers to promoting safety actions in their PHC centers.

**Outcome Domains**

**Reporting events**

It means recording any accidents, adverse events, and any errors that may harm the patient. A successful safety culture reporting system needs good feedback in a suitable communication manner handled by all of the PHC staff. Therefore, managers have to support, motivate and monitor increasing compliance with reporting mechanisms.

**Perception of patient safety culture**

It refers to how the PHC staff recognizes the safety of the introduced services. All of the previous domains will be affected by the perception of the staff members, which means that variations will occur. So, what seems good to one of the staff members may seem acceptable or bad to another. It varied due to different subcultures among the PHC staff, which meant different safety concerns.

### 2.2.2 PHC characteristics

**Organizational characteristics**

**PHC governorate**

The variation of each governorate's culture directly affects the PHC safety, because each governorate has its special aspects and its residents have their behavior, which differentiates it from the other governorates. This affects the culture in two ways: the first how they behave in their units and the second how they perceive their behavior.

**PHC level**

The size of PHC influences the perception of a safety culture. PHC provides many services to the public. Employees 'perception of safety culture differs according to the nature of the institution's size and the nature of the services provided.

### 2.2.3 Staff characteristics

**Working years**

It refers to the experience the PHC staff have about how the actions and the procedures have been done in their centers, which tremendously affect the perception of the safety culture dimensions.

**Contact with patients**

The nature of the PHC staff work has its imprint on their perspective of the safety culture because working directly with the patient has a different sense than working indirectly.

**Working department**

Sometimes in the same PHC, each department has its subculture depending on its work nature that outlines the perspective of its staff toward the safety culture dimensions.

**Profession Category**

Each profession impresses its subordinate with special skills and attitudes that significantly affect their acts and perceptions of the safety culture dimensions.

# Chapter Three

## Methodology

This chapter presents the study methodology and illustrates the study design, target population, study setting, study population, sample size, and the study period. It also illustrates the used instrument, the administrative and ethical procedures, the pilot study, data collection, data entry and analysis, and the limitations of the study.

### 3.1 Study design

The study is a descriptive-analytic study that utilized a quantitative cross-sectional approach. The researcher used a quantitative data collection method to numerically illustrate the extent to which patient safety culture exists at PHC centers in Gaza. Cross-sectional designs are quick and economical.

### 3.2 Study setting

The study was carried out at the 11 governmental PHC centers in five governorates in the Gaza Strip.

### 3.3 Study population

The study targeted the PHC centers staff who have direct contact with patients, including physicians, nurses, and paramedics, and also the PHC centers staff who have indirect contact with patients but still work affects patient care such as supervisors and managers. According to the General Director of PHC in Gaza, the total number of staff working in all Gaza governmental PHC centers is 1857 (MoH, 2020).

### 3.4 Inclusion criteria

The criteria include health care providers and managers who are:

- officially employed in the governmental PHC centers
- employed for at least 6 months before the survey administration.
- engaged in working with beneficiaries directly or indirectly.

## 3.5 Sample size calculation

According to the report of the MoH in 2020, the total number of health providers in PHC centers in Gaza was 1857, and the number of staff in the selected 430 the size of a maximum acceptable percentage point of error is 5%, so by using Epi info program, the sample size was calculated at 318 of PHC centers personnel with the required confidence level was 95%, probability of occurrence 50%. The sample was increased to 420 to compensate for the non-responders (see annex 3).

## 3.6 Sampling process

### 3.6.1 Sampling

A multi-stage sampling technique was used to select 11 governmental PHC centers of the total 54 PHC centers in the GS. The GS was divided into five governorates and then two health centers from each area were selected randomly, one small and one large center but in the Gaza governorate we selected 3 PHC centers randomly.

**Table 3.1: List of the randomly selected clinics**

| Governorates | Large centers | Small centers |
|---|---|---|
| North | Shohadaa Jabalia | Abu Shbak |
| Gaza | Shohdaa Alremal | Sabha and Ata Habib |
| Deir Al Balah | Shohdaa Deir Al Balah | Shohdaa Alnosirat |
| Khan younis | Shohdaa Khan younis | Bnisohila |
| Rafah | Shohdaa Rafah | Talsoltan |

### 3.7 Ethical and administrative considerations and procedures

- An academic approval was obtained from the School of Public Health at Al-Quds University after the proposal discussion.

- Ethical approval was obtained from the Helsinki Committee (see Annex4).

-Administrative institutional approvals were obtained from the MoH to administer the questionnaire at the MoH PHC centers in Gaza, through the University.

-To guarantee the rights and consent of the participants, an explanatory letter was attached indicating the aim of the study and that participation was anonymous and voluntary and assurance of the confidentiality of data collected and used only for the study.

### 3.8 Study instruments

A self-administered questionnaire, using an Arabic version of the HSOPS was used to collect data. The Hospital Survey of Patient Safety Culture (HSOPS) was developed by the Agency for Healthcare Research and Quality (See Annex 5). The tool consists of 12 domains about patient safety. The tools were used after refining some questions to match with the PHC services.

The survey measures seven unit-level aspects of safety culture as follows:

- Supervisor/manager expectations and actions promoting safety (4 items)
- Organizational learning and continuous improvement (3 items)
- Teamwork within hospitals units (4 items)
- Communication openness (3 items)
- Feedback and communication about the error (3 items)
- Non-punitive response to error (3 items) and
- Staffing (4 items)

In addition, the survey measures three PHC-level aspects of safety culture which are:

- PHC management support for patient safety (3 items)
- Teamwork across PHC units (4 items)
- PHC handoffs and transitions (4 items)

Finally, two outcome variables are included:

- Overall perceptions of safety (4 items)
- Frequency of event reporting (3 items)

### 3.9 Study Period

The study started after having Al-Quds University's approval and obtaining ethical approval from the Helsinki Committee in February 2021. The data collection tool was constructed using international tools HOSPSC, which was developed by Westat Rockvilla and Joann Sorra in 2004, with slight modifications, and translated into Arabic in February 2021. The pilot study was conducted in March 2021, then data collection began in April and was completed in May 2021. Data entry and cleaning were conducted in September 2021 and finally data analysis and writing the final research report were done in the next period till the end of march 2022 (see annex 2).

### 3.10 Pilot study

A pilot study was conducted on 30 members of non-selected PHC staff to examine their responses to the questionnaire, to explore the appropriateness of the study instruments. This also allows for further improvement of the study tool wording, validity and reliability. Some questions were modified according to the results from the pilot. Responses obtained through the pilot study were not included in the study.

### 3.11 Scientific rigor

#### 3.11.1 Reliability

The following steps were done to assure instrument reliability. To ensure reliability, questions were tested during the pilot study. Data collectors trained and received detailed instructions to ensure standardization and to reduce filling errors. Checking and verification of the filled questionnaires were done at the end of each data collection day. Re-entry of 5% of the data after finishing data entry was assured correct entry procedure and decreased entry errors. Cronbach alpha was done and it was o.72. According to the HSOPSC user's guide, a Cronbach(α) 0.6 is acceptable (Sorra, et al. 2004) whereas (Bowling, 1997) states that a value of 0.5 or above indicates good internal consistency. Positive responses in positively worded items were strongly agree/ agree or always/ most of the time. Positive responses in negatively worded items were 'strongly disagree/ disagree' or 'rarely/never'.

**Table 3.2: Reliability table of the patient safety domains**

| **Dimensions** | **Cronbach Alpha** |
|---|---|
| Team within PHC units | 0.54 |
| Feedback and communication about error | 0.5 |
| Communication openness | 0.52 |
| Supervision | 0.51 |
| Staffing | 0.61 |
| Transition and handoff | 0.57 |
| Non-punitive response to errors | 0.7 |
| Team cross units | 0.52 |
| Organizational learning | 0.54 |
| PHC management support for patient safety | 0.5 |
| **Overall reliability score** | **0.72** |

### 3.11.2 Validity

The questionnaire (English and Arabic versions) was constructed by adapting tested instruments to best serve the study objectives. Then the constructed tool was validated through expert reviewers. The tool was nicely formatted to ensure face validity. This included an appealing layout, a logical sequence of questions, and clear instructions added as question skipping. A pilot study was conducted before the actual data collection to examine clients' responses to the questionnaire and how they understand it. This would enhance the validity of the questionnaire after modifying it to be better understood. Also, general reliability, validity, and trustworthiness (for the quantitative) measures were implemented including:

- Interviewing an adequate number of participants (appropriate sample)
- Standardization of tools
- Using internationally recognized tools
- Standardization of implementation

## 3.12 Data collection

Self-administered tools (modified and translated Arabic version of HSOPSC) were used. From each unit in the PHC center staff was selected randomly, and coordinators were assigned to distribute and collect the filled questionnaires. The process of data collection

took around 2 months. The questionnaire was distributed to accomplish 420 filled questionnaires from the different units of the selected PHCs, 363 have been filled with a response rate (86.4%).

### 3.13 Data entry and analysis

• For data collection, the researcher reviewed the questionnaires continuously and before entering them to ensure valid information and correct them immediately if required. The data entry model was designed using the Statistical Package of Social Science (SPSS) program for data entry and analysis. The questions and variables were coded and entered. A re-entry test was performed with 5% of the data. Then data cleaning was performed to check illogical values. Recoding of continuous data was done as appropriate.

• Descriptive statistics were used to analyze numerical data which helps to describe, depict or summarize data in a meaningful manner and it helps in the calculation of the central tendency of mean, median, and mode. Frequency tables were done to show sample characteristics and plot differences between various staff characteristics variables.

• The researcher carried out an inferential analysis to test the statistical significance of differences among variables. For categorical variables, cross-tabulation and chi-square were done. A T-test was done to compare differences in numerical values like safety scores across categorical variables with two sets of categories like gender. ANOVA test was done to measure differences in numerical data across categorical data with more than two differences in safety level (numerical value) and level of PHC clinic. Correlations are done to examine the association between two sets of numerical data.

### 3.14 Limitations

- There are known inherent limitations to the study design used in this research (Snap shot); the most significant among them is a cross-sectional measurement that reflects the subjective (felt) status of participants which may be affected by temporary exposure to instantaneous effects or emotional status. However, the diversity of participants and their relatively large number may reduce this limitation.
- The study is a mainly quantitative one. Perceptions and lived experience are better reflected in qualitative research.
- The self-administered questionnaire had some problems with the participants understanding of the actual meaning of questionnaire items.

- We didn’t consider the external environmental influence in creating a patient safety culture.
- The researcher only relied on the staff's view of safety culture, and patients' views were not taken into account.
- Finally, contextual limitations include electricity cuts, ongoing conflict, and limited access to international publications. Having that said, the researcher kept in mind these limitations during writing the thesis.

# Chapter Four

## Result and Discussion

This chapter illustrates the analysis of data that have been collected by the researcher from the targeted participants using self-administered questionnaires. Findings are organized to present the descriptive statistics first and then the inferential ones.

### 4.1 Descriptive analysis

#### 4.1.1 PHC and participants' characteristics:

As shown in Table 4.1, participants were diverse according to their PHC centers' locations. The highest percentage of participants were working in the Gaza governorate with a percentage of 28.7%, followed by Khan Younis with a percentage of 26.2%, while the smallest percentage was in the north governorate with 12.9%. Males represented one-third of the participants and females represented two-thirds. Possibly, the response rate was higher among females than males. Regarding age, the mean age is around 40, around 20% are up to 30 years old and 36% are 30-40 years old. Around 56% of the health facilities are staffed by a young generation who, if trained and used to consider patient safety, might have implications in the long run as they will serve many years till retirement.

**Table 4.1: Distribution of responses according to participants' characteristics**

| **Variables** | **Number** | **%** |
|---|---|---|
| **Governorates where the PHC is located** | | |
| Rafah | 68 | 18.7 |
| Khan-Younis | 95 | 26.2 |
| Deir Al Balah | 49 | 13.5 |
| Gaza | 104 | 28.7 |
| North | 47 | 12.9 |
| **Total** | **363** | **100.0** |
| **Gender of participant** | | |
| Male | 132 | 36.4 |
| Female | 231 | 63.6 |
| **Total** | **363** | **100.0** |

| | | |
|---|---|---|
| **Age of participant** | | |
| Up to 30 | 71 | 19.7 |
| 31-40 | 128 | 35.6 |
| 41-50 | 113 | 31.4 |
| More than 50 | 48 | 13.2 |
| **Total** | **360** | **100.0** |
| **Mean age (years)** | | **39.9** |
| **Profession of participant** | | |
| Nursing | 126 | 34.7 |
| Physicians | 65 | 17.9 |
| Management | 71 | 19.6 |
| Paramedical | 68 | 18.7 |
| Pharmacy | 33 | 9.1 |
| **Total** | **363** | **100.0** |

Nurses represented the largest category of respondents (34.7%), physicians represent around 18% of respondents and around 19% of respondents are paramedical (see Table 4.1). Those who are occupying managerial or administrative jobs represented around 20% of the respondents; some of them are originally technical people who occupy managerial positions. This distribution is similar to the distribution of human resources (HR) at MoH PHC centers (MoH, 2018), in addition, the diversity of the working staff characteristics may reflect the various perspectives of the safety culture dimensions and contribute to identifying how different groups perceive gaps in safety culture. In a study conducted in Oman 59% of participants are nurses (Mandhari et al., 2014). Also, the findings of a study conducted in Kuwait were similar to the findings of this study (Ghobashi et al., 2014). The distribution of professions in this study goes with the distribution of resources in the Palestinian health care system (Betawi, 2020), and also it goes with the distribution of HR in health systems as nurses represent the largest category of health providers (MoH, 2018).

Concerning years of experience in their specialty, 28% worked up to 5 years, the majority had long experience with around 35% had 6-15 years and a similar percentage (37.2%) had work experience in their specialty beyond 15 years. This indicates that the respondents included in this study had good years of experience as a result of their exposure to many situations that affect safety culture and thus have a clear knowledge of safety issues and their importance compared to those who have less years of experience (Mohamed et al., 2016).

**Table 4.2: Distribution of responses according to work related variables**

| Variable | Number | % |
|---|---|---|
| **Working years in respondents' specialty** | | |
| 1-5 years | 102 | 28.1 |
| 6-15 years | 126 | 34.7 |
| 16≤ years | 135 | 37.2 |
| **Total** | **363** | **100.0** |
| **Working years in this clinic** | | |
| less than10 years | 207 | 57.0 |
| 11≤ years | 156 | 43.0 |
| **Total** | **361** | **100.0** |
| **Working years in this department** | | |
| 1-5 years | 170 | 46.2 |
| 6-10 years | 60 | 18.0 |
| 11 and more years | 131 | 34.8 |
| **Total** | **361** | **100.0** |
| **Weekly working hours** | | |
| 35-39 | 298 | 82.0 |
| 40 and more hours | 65 | 18.0 |
| **Total** | **363** | **100.0** |
| **Mean working hours** | | **22.2** |
| **Department type** | | |
| MCH | 94 | 26.0 |
| General clinic | 90 | 24.9 |
| Others | 62 | 17.4 |
| Paramedical | 50 | 14.6 |
| Pharmacy | 40 | 11.3 |
| More than one department | 26 | 5.8 |
| **Total** | **362** | **100** |
| **Working in other organizations** | | |
| Yes | 164 | 45.2 |
| No | 199 | 54.8 |
| **Total** | **363** | **100** |
| **Ever working in hospitals** | | |
| Yes | 219 | 60.3 |
| No | 144 | 39.7 |
| **Total** | **363** | **100** |
| **Receiving full salary** | | |
| Yes | 122 | 33.6 |
| No | 241 | 66.4 |
| **Total** | **363** | **100** |

Regarding working at their current PHC center, 57% of the respondents worked up to 10 years; 43% worked more than 11 years. Among the respondents, 46% had 1 to 5 years of working experience in their current departments at PHC centers; 18% worked from 6 to 10 years and 34.8% had 11 and more years of experience in their current departments. A study conducted at PHC centers in Kuwait, showed that 56% of participants had more than 1-5 years of working in PHC centers, while 7.4% of respondents had more than 21 years of working at PHCs (Ghobashi et al., 2014). But according to a study conducted in Oman, 60% of participants had less than 1 year of experience (Mandhari et al., 2014). This indicates that the working staff in Gaza PHCs, have good years of experience which might influence positively their knowledge about the safety culture

Regarding the working department of participants, MCH department had the highest percentage (26%), followed by the general clinic (24.9%), others (17.4%), paramedical (14.6%), pharmacy (11.3%) and more than one department (5.8%). This diversity of working departments is useful to illustrate the safety culture at PHC clinics as a whole and also at each department as subcultures may be present in certain departments. The literature shows that there are variations across departments in different organizations (Sheikhtaheri, 2015). Patient safety culture improvement efforts should be studied as closely to the patient as possible.

Participants also differ due to work-related variables, most of them (82%) were working the required regular hours for about 35-39 hours weekly, and few were working for more than
40 hours with a percentage of 18%. In a study conducted in Kuwait, 58% of participants work 40 and more hours per week (Ghobashi et al., 2014). Another study conducted in Alexandria showed that 80% of participants work from 36-48 hours weekly ( Mohamed et al., 2016). Fatigue associated with long working hours may endanger patient safety and contribute to error (Mohamed et al., 2016). This indicated that this category needed more attention and effort in the enhancement strategies targeting the safety culture.

Among the PHC respondents, 60% worked at hospitals before although they are currently working at PHC. This may increase their exposure to safety issues which are frequently discussed at hospitals. Nearly 45% of respondents reported working in other organizations other than the MoH PHC centers. This might increase their exposure to safety related

issues. At the time of data collection, only 34% of respondents reported that they are receiving their salaries in full, the others are partially paid.

When asked whether they received training on patient safety or not, more than three-quarters of respondents indicated yes (78.2%). The literature flags the importance of training all the staff on patient safety. Similarly, despite its extreme importance, nearly a quarter of participants indicated that they don't have protocols related to patient safety. Moreover, a quarter of respondents indicated that they don't have good supervision. Having good supervision is an essential requirement for ensuring safety.

**Table 4.3: Distribution of responses by patient safety related variables**

| **Variable** | **Number** | **%** |
|---|---|---|
| **Receiving training on patient safety** | | |
| Yes | 284 | 78.2 |
| No | 79 | 21.8 |
| **Total** | **363** | **100.0** |
| **Having protocols about patient safety** | | |
| Yes | 275 | 75.8 |
| No | 88 | 24.2 |
| **Total** | **363** | **100.0** |
| **Having good supervision** | | |
| Yes | 274 | 75.5 |
| No | 89 | 24.5 |
| **Total** | **363** | **100.0** |

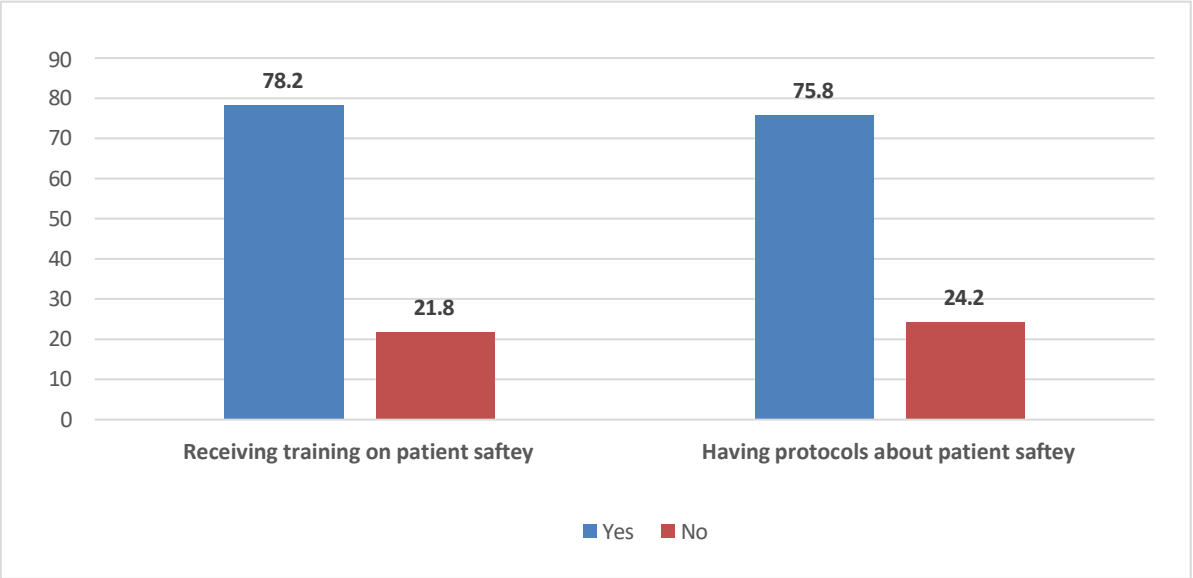


**Figure 4.1: Distribution of responses by patient safety related variables**

### 4.1.2 Perceptions about safety and reporting errors

Participants from all disciplines differed in their given responses of the perceived patient safety degree in their PHCs as shown down in Table (4.3), 50.4% of the participants reported it was very good, 24% perceived it as acceptable and only few reported that it was poor or failing with 5.8%. This result was higher than a study conducted in Tunisia where 57.2% of the participants reported it was acceptable (Tlili et al., 2020), but in Kuwait study, the respondents judged it as excellent or very good with 85% respectively (Ghobashi et al., 2014). But in the study conducted by El-Saqqa in Gaza hospital, 66.9% of participants reported that the safety culture in Gaza hospital is excellent and very good (Saqqa, 2015). That may be due to low expectations of health staff.

This indicates that the safety in Gaza PHCs was perceived by most of the participants to be good or in a better status, so by considering implementing more safety efforts and using attractive methods, we will achieve higher degrees of safety.

**Table 4.4: Distribution of responses according to perceptions of safety culture related variables**

| Variable | Number | % |
|---|---|---|
| **Degree of patient safety** | | |
| Excellent | 70 | 19.3 |
| Very good | 183 | 50.4 |
| Acceptable | 89 | 24.5 |
| Week | 16 | 4.4 |
| Very week | 5 | 1.4 |
| **Total** | **363** | **100.0** |
| **Number of reported events in the past 12 months** | | |
| 0 Events | 249 | 68.0 |
| 1- 2 Events | 73 | 20.0 |
| 3 and more events | 41 | 11.3 |
| **Total** | **363** | **100.0** |

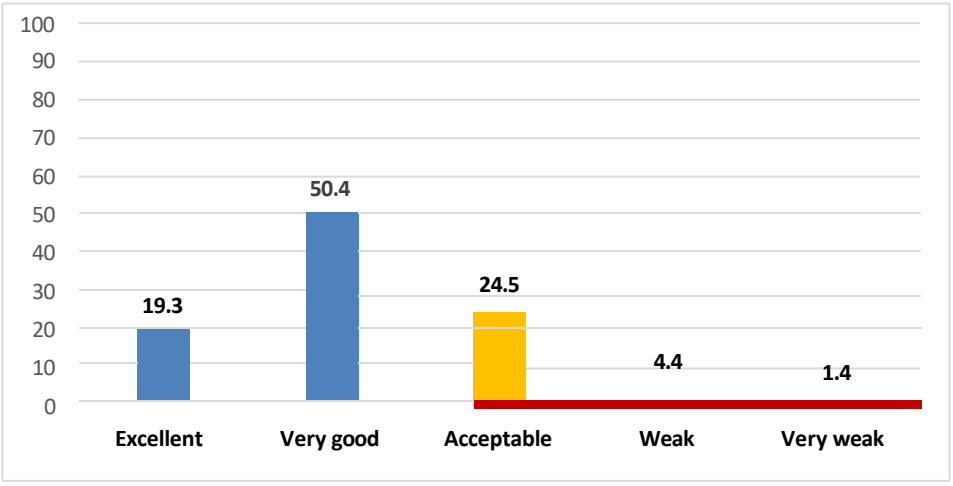


**Figure 4.2: Distribution of perceived degree of patient safety**

Regarding the number of reported events, 68% of participants disclosed 0 reported events in the past 12 months; it was higher than the study conducted in Egypt (Mohamed et al., 2015) the percentage was 43.6% and it was lower than the study conducted in Kuwait (Ghobashi et al., 2014) the percentage was 86.8%. However, the percentage of participants who had 1-2 reported events is 20% and 11.3% reported more than 3 events.

Reporting (providing accounts of mistakes) and disclosing (sharing with patients and significant others) actual errors and near misses provide opportunities to reduce the effects of errors and prevent the likelihood of future errors by, in effect, warning others about the

the potential risk of harm. Reporting reduces the number of future errors, diminishing personal suffering and decreasing financial costs. In contrast, disclosure is thought to benefit patients and providers by supplying them with immediate answers about errors and reducing lengthy litigation (Mohamed et al., 2016). Although clinicians and health care managers and administrators feel uncomfortable with disclosure, disclosure is a duty. The reporting of incidents to a national central system helps protect patients from avoidable harm by increasing opportunities to learn from mistakes and where things go wrong reports to identify and act to prevent emerging patterns of incidents on a national level via patient safety alerts. These alerts are a crucial part of the NHS' work to rapidly alert the healthcare system to risks and to provide guidance on preventing potential incidents that may lead to avoidable harm or death (Sugandam, 2020).

Incident reporting is also important at a local level as it supports clinicians to learn about why patient safety incidents happen within their service and organization, and what they can do to keep their patients safe from avoidable harm (Mohamed et al., 2016).

Medical errors are often described as human errors in health care, and therefore errors are only borne by the health staff. The absence of a clear and comprehensive law explaining how to deal with medical errors makes reporting rare because the staff fears the mechanism of dealing with them and the decisions that can be taken against them, as decisions may be fateful such as final dismissal, temporary suspension from work, transfer from one service center to one center to another and defamation or punishment that may reach imprisonment (Sorra and Famolaro, 2011).

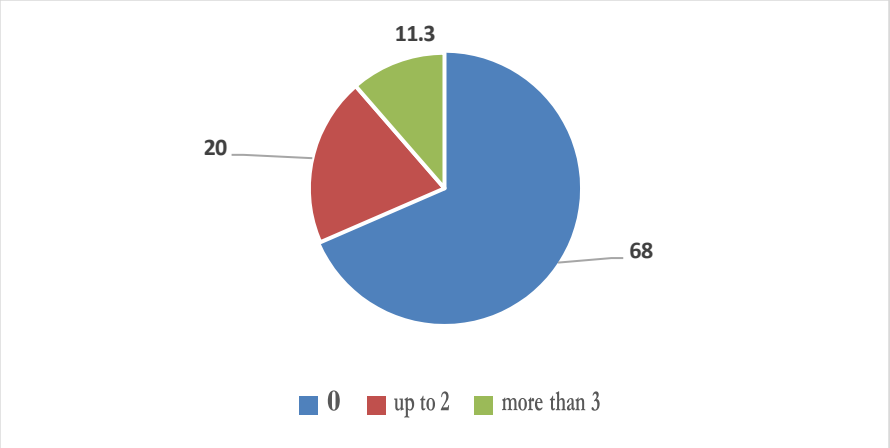


**Figure 4.3: Reported errors as disclosed by participants**

The researcher argues that results may be affected by the tendency of most of the participants who prefer not to report events, and their tendency to solve problems informally without officially reporting events. So, the researcher suggests that PHCs needed to promote the non-punitive response to errors and the feedback and communication about error in order to encourage the acceptance of reporting events/errors and disseminating the lessons learned from it.

### 4.1.3 Patient safety culture domains:

Areas defined as strong when the percentage scored 75% and above, whereas areas requiring improvement where those scored below 50% (Sorra, et al.2011).

**Table 4.5: Distribution of responses by means' percentages of safety culture domains**

| **Domains of patient safety culture** | **No of items** | **Mean %** |
|---|---|---|
| Staffing | 4 | 83.0 |
| Teamwork within PHCs units | 4 | 81.0 |
| Management support for safety | 3 | 71.0 |
| Organizational learning | 3 | 70.0 |
| Supervisor Manager | 4 | 68.0 |
| Perception of safety | 4 | 66.0 |
| Feedback | 3 | 65.0 |
| Non-punitive response | 3 | 64.0 |
| Teamwork across PHCs units | 4 | 60.0 |
| Frequency of reporting events | 3 | 60.0 |
| Communication | 3 | 59.0 |
| Handoffs and transitions | 4 | 52.0 |
| **Total PS score** | | **65.0** |

To clarify the general picture of safety culture, the researcher presents table (4.5) which shows the mean percentage score of the 12 safety culture domains. The total mean score of perceptions of the patient safety culture was estimated to 65%. Table (4.5) shows the strongest and weakest areas in patient safety, staffing and teamwork within a unit defined as a strong area according to the HSOPSC guidelines, where they received a score above %75.

On the other hand, the PHCs transition and handoff was the area defined as the weakest area with a score around %50 (Sorra, et al.2011), the dimensions fall between still needing to adopt strategies for improvement.

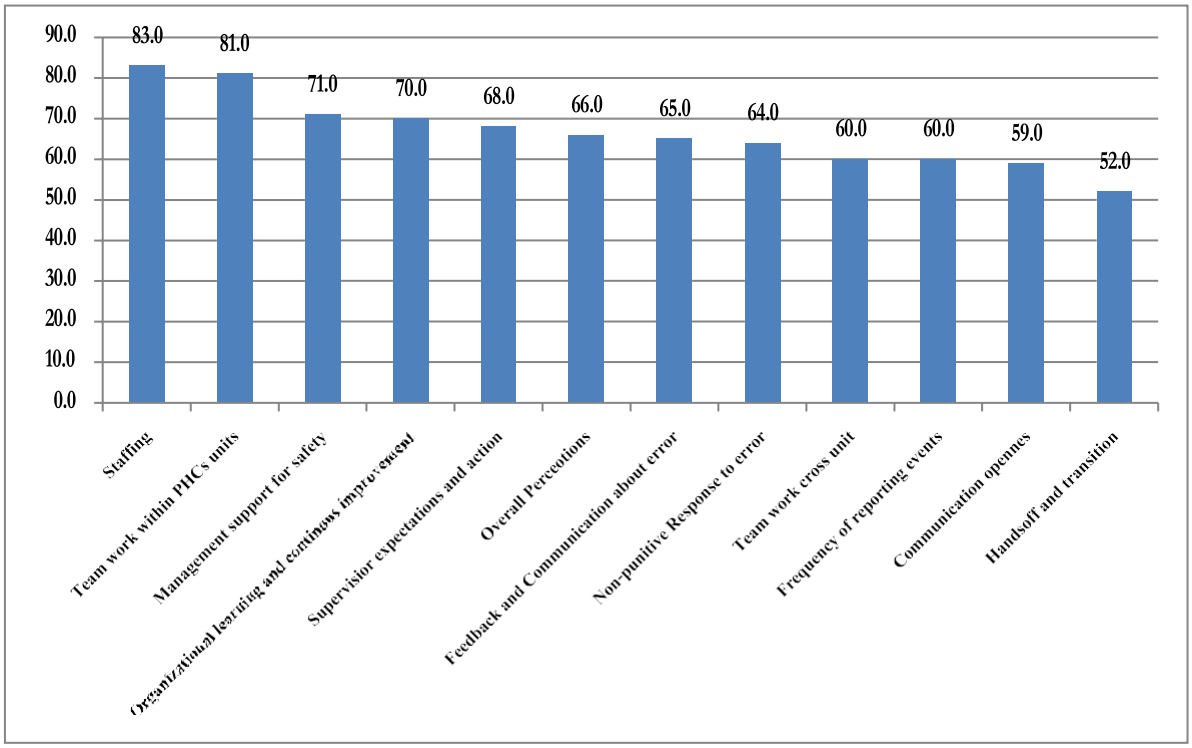


**Figure 4.4: Responses by mean percentages of safety culture domains**

The scores elicited in this study are higher than the earlier study conducted at Gaza hospitals in 2014. Time factor, efforts to support safety done over the past years and also the difference in the nature of work between PHC and hospitals could contribute to the differences. In comparison with other contexts, respondents reported higher scores in this study possibly due to variations in expectations due to differences in experiences, knowledge and orientations.

**Patient safety culture domains:** The next tables provide detailed information about the contents of the dimension of patient safety

### 4.1.4 Unit level domains

**Staffing**

Staffing dimension had the highest score 83%, It is higher than (Mohamed et al., 2015) and (Tlili et al., 2020) study 60% and 34% respectively. It showed that participants were satisfied with the staffing in their PHCs. This could be related to acceptable function of HR management; we need a more focus on staff training program about safety

59.1% of participants agreed that when working in "crisis mode" trying to do too much, too quickly. Therefore, a comprehensive training must be done for the health staff on how to work in crisis, where it is required in such cases to work quickly, and preserve the patient's life and try to avoid any error or harm to the patient. Some PHC staff thinks that working quickly in a crisis to avoid bad effects is necessary to ensure patient live without taking into account the foundations of the safety culture, but others consider that this rapidity may negatively cause error or unsafe acts.

**Table 4.6: Distribution of responses in relation to staffing domain**

| Items | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Enough staff is existed to handle the workload | No | 23 | 89 | 48 | 159 | 44 | 363 | 3.3 | 66.0 |
| | % | 6.3 | 24.5 | 13.2 | 43.8 | 12.1 | 100 | | |
| Staff in this unit work longer hours than isn't better for patient care* | No | 28 | 97 | 102 | 85 | 49 | 361 | 3.1 | 62.0 |
| | % | 7.8 | 26.9 | 28.3 | 23.5 | 13.6 | 100 | | |
| More temporary staff are used that isn't better for patient care* | No | 77 | 101 | 83 | 81 | 19 | 361 | 2.6 | 52.0 |
| | % | 21.3 | 28 | 23 | 22.4 | 5.3 | 100 | | |
| Working in "crisis mode", trying to do too much, too quickly* | No | 12 | 35 | 101 | 177 | 37 | 362 | 3.5 | 70.0 |
| | % | 3.3 | 9.7 | 27.9 | 48.9 | 10.2 | 100 | | |
| **Total** | | | | | | | | | **83.0** |

*The mean was inverted due to the negative word or negative expression of the questions

**Team work within unit**

The team within the unit dimension had the second score 81.0%. It is higher than the studies conducted in Egypt, Tunisia, and Gaza hospitals (Mohamed et al., 2015) (Tlili et al., 2020) and (Saqqa, 2015) with 80%, 70.6%, and 78% respectively. This reflected the good consciousness and the sense of responsibility the PHCs' working staff have to work together and give consultations, especially in serious situations to deliver the best safe care in their PHCs. Also, it referred to the exerted efforts in developing their knowledge and skills by benefiting from the accumulated experiences in increasing the efficiency and the effectiveness of the PHCs outcomes.

Another contradictory possible explanation is related to expectations which affected the self-reported responses. Possibly, have lower expectations and less exposure to other contexts; therefore, reported more positive perceptions about safety regardless of the actual status of safety.

However, the researcher argues that PHCs could benefit more from these relatively strong areas of the safety culture dimension in supporting the other acceptable or weak areas in two ways. The first is by increasing the focus of enhancement on the other dimensions' activities because the improvement effort would focus more on lesser number of the safety culture dimensions. The second is that continuous reinforcement of these strongest dimensions would positively affect the other safety culture dimensions because they were highly interrelated.

Regarding the teamwork within units' dimensions. The vast majority (89%) of the respondents reported strongly or very strongly agreed that staff members support each other in their units, and 84% of them agreed strongly or very strongly when a lot of work needs to be done, working as a team to get work done quickly. This may reflect the good efforts of the supervisors to encourage such spirit and increase the dedication to their work. Also, clarify the role of promoting the staff autonomy in the care functioning especially in the emergencies to save the patients' safety.

**Table 4.7: Distribution of responses in relation to teamwork within unit domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| People support each other in this unit | No | 4 | 4 | 29 | 212 | 114 | 363 | 4.1 | 82.0 |
| | % | 1.1 | 1.1 | 8 | 58.4 | 31.4 | 100 | | |
| When a lot of work needs to be done, working as a team to get work done quickly | No | 4 | 9 | 41 | 205 | 104 | 363 | 4.09 | 81.8 |
| | % | 1.1 | 2.5 | 11.3 | 56.5 | 28.7 | 100 | | |
| In this unit, people treat each other with respect | No | 8 | 8 | 23 | 177 | 147 | 363 | 4.0 | 80.0 |
| | % | 2.2 | 2.2 | 6.3 | 48.8 | 40.5 | 100 | | |
| When one area in this unit gets really busy, others help out | No | 14 | 24 | 55 | 197 | 73 | 363 | 3.8 | 76.0 |
| | % | 3.9 | 6.6 | 15.2 | 54.3 | 20.1 | 100 | | |
| **Total** | | | | | | | | | **81.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## Organizational learning

Organizational learning and continuous improvement scored 70%. This score is approximately good but we need more effort to improve the learning culture in our PHCs in Gaza. This score is higher than the study conducted in Tunisia, organizational learning obtained 48.7% (Tlili et al., 2020), and it is lower than the studies conducted in Kuwait, Egypt, and Gaza hospitals 75.0%, 73.3%, and 72% respectively (Ghobashi et al., 2014), (Mohamed et al., 2015) and (Saqqa, 2015).

However, about 38% of the respondents reported that mistakes may lead to positive changes in relation to the organizational learning domain. Most of the respondents 68.6% agreed and strongly agreed that after making changes to improve safety, evaluation was done. This revealed the necessity to increase awareness of the PHCs staff toward the importance of the extracted recommendations that can be excluded by well discussing the happened mistakes in making the needed changes or modifications. It also refers to the significance of demanding regular evaluation.

**Table 4.8: Distribution of responses in relation to organization learning domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Actively doing things improve patient safety | No | 10 | 20 | 67 | 171 | 87 | 355 | 3.8 | 76.0 |
| | % | 2.8 | 5.8 | 18.9 | 48.2 | 24.5 | 100 | | |
| Mistakes have led to positive changes here | No | 35 | 86 | 102 | 124 | 16 | 363 | 3.0 | 60.0 |
| | % | 9.6 | 23.7 | 28.1 | 34.2 | 4.4 | 100 | | |
| After making changes to improve safety, evaluating was done | No | 10 | 33 | 71 | 205 | 44 | 363 | 3.7 | 74.0 |
| | % | 2.8 | 9.1 | 19.6 | 56.5 | 12.1 | 100 | | |
| **Total** | | | | | | | | | **70.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## Supervisor/ Manager

Supervisors' expectations and actions promote safety, which is one side of the management support for safety at 68%; it was lower than studies conducted in Egypt and Oman study with 75% and 60% (Mohamed et al., 2015; Mandhari et al., 2014). There was a weakness in this dimension, possibly because supervisors didn't clear roles. This confirms that there is a need to determine and enhance the vital roles the supervisors have to play, especially in promoting the staff to work safely and encouraging them to adopt the safety culture requirements.

Only 15% of the respondents disagreed and strongly disagreed with the statement "supervisor or manager seriously considers staff suggestions for improving patient safety" and 15% disagreed and strongly disagreed with the statement of a supervisor says a good word when he/she sees a job done according to established patient safety procedures". This referred to the fact that PHCs supervisors are working positively and don't limit their employees' suggestions. This promotes the staff to work effectively without shortcuts in procedures. Also, this encourages the staff to benefit more from the good attitudes of their supervisors, by taking their responsibilities and giving more suggestions to eliminate the recurrence of safety problems, and it aims to prevent and reduce risks, errors and harm that

occur to patients during provision of health care. Acting on the suggestions of the health staff will contribute to continuous improvement based on learning from errors and adverse events. Improving patient safety is fundamental to delivering quality essential health services.

**Table 4.9: Distribution of responses in relation to supervisor/ manager domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Supervisor says a good word when he/she sees a job done according to established patient safety procedures | No | 15 | 42 | 48 | 198 | 60 | 363 | 3.7 | 74.0 |
| | % | 4.1 | 11.6 | 13.2 | 54.5 | 16.5 | 100 | | |
| Supervisor/manager seriously considers staff suggestions for improving patient safety | No | 21 | 34 | 46 | 212 | 50 | 363 | 3.7 | 74.0 |
| | % | 5.8 | 9.4 | 12.7 | 58.4 | 13.8 | 100 | | |
| Whenever pressure builds up, supervisor/manager wants us to work faster, even if it means taking shortcuts* | No | 43 | 128 | 85 | 128 | 43 | 363 | 2.7 | 54.0 |
| | % | 11.8 | 35.3 | 23.4 | 24 | 5.5 | 100 | | |
| Supervisor/manager overlooks patient safety problems that happen over and over* | No | 9 | 36 | 66 | 201 | 51 | 363 | 3.7 | 74.0 |
| | % | 2.5 | 9.9 | 18.2 | 55.4 | 14 | 100 | | |
| **Total** | | | | | | | | | **68.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## Feedback

However, the results of the feedback and communication about errors mean percentage 65%, which is lower than (Mohamed et al., 2015) study with 66.7 % and El-Saqqa study at Gaza hospital with 68% (Saqqa, 2015). However, it is higher than the studies that were conducted in Kuwait and Tunisia with 42% and 53.5% respectively (Ghobashi et al., 2014) (Tlili et al., 2020). This appraises that there is not enough awareness of communication and feedback in PHCs daily work in either the units or at PHCs level, in addition to the power the staff has in representing their suitable ideas and solutions. The improvement of these dimensions may increase the reporting of events and enhance the PHCs management support dimension because communication facilitates discussion and feedback about errors and activates the monitoring and controlling role of management.

**Table 4.10: Distribution of responses in relation to feedback domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Feedback about changes put into place based on event reports | No | 33 | 61 | 160 | 93 | 15 | 362 | 2.9 | 58.0 |
| | % | 9.1 | 16.9 | 44.2 | 25.7 | 4.1 | 100 | | |
| Errors that happen in this unit are informed | No | 37 | 56 | 128 | 103 | 39 | 363 | 3.1 | 62.0 |
| | % | 10.2 | 15.4 | 35.3 | 28.4 | 10.7 | 100 | | |
| In this unit, ways are discussed to prevent errors from happening again | No | 20 | 32 | 72 | 163 | 76 | 363 | 3.7 | 74.0 |
| | % | 5.5 | 8.8 | 19.8 | 44.9 | 20.9 | 100 | | |
| **Total** | | | | | | | | | **65.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## Communication openness

Communication openness mean percentage 59.0%, which is higher than the results of studies conducted in Kuwait and Tunisia with 45%, 42% subsequently (Ghobashi et al., 2014) (Tlili et al., 2020), but it is lower than the study conducted in Egypt with 66.7% (Mohamed et al., 2015) and El-Saqqa study at Gaza hospital with 64% (Saqqa, 2015). This indicates that there is not enough awareness of communication in PHCs daily work at either the units or PHCs level. There is an essential need to work on this domain to improve the quality of health care services.

About the communication openness dimension, 42% of respondents reported neutral that staff is afraid to ask questions when something does not seem right. Also, there was an obvious contrast between respondents regarding feeling free to question the decisions or actions of those with more authority (agreeable 30%, disagreeable 33%). This contradiction may highlight the need to improve the communications ways between the staff and their managers and to adopt this important pillar in the PHCs routine system. Also, to use this pillar as a significant tool to report and reduce unsafe acts.

**Table 4.11: Distribution of responses in relation to the communication domain**

| Domain/question | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Staff freely speak up if they see something that may negatively affect patient care | No | 30 | 38 | 86 | 156 | 53 | 363 | 3.5 | 70.0 |
| | % | 8.3 | 10.5 | 23.7 | 43 | 14 | 100 | | |
| Staff feel free to question the decisions or actions of those with more authority | No | 55 | 66 | 130 | 86 | 26 | 363 | 2.9 | 58.0 |
| | % | 15.2 | 18.2 | 35.8 | 23.7 | 7.2 | 100 | | |
| Staff are afraid to ask questions when something does not seem right* | No | 67 | 87 | 154 | 42 | 13 | 363 | 2.6 | 52.0 |
| | % | 18.5 | 24 | 42.4 | 11.6 | 3.6 | 100 | | |
| **Total** | | | | | | | | | **59.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## Non-punitive response

Non-punitive perception of safety culture elicited 64%, its low may be due to the staff fear of punishment, lack of follow up toward events reporting, weakness of monitoring and accountability, and because of patients' complaints disregarded due to confidence lacking responses. However, this domain had effects on some of the other domains such as organizational learning, which to a large extent depends on learning from mistakes and errors analysis. Also, the frequency of reporting events 60% may be affected by promoting a non-punitive response. So, the researcher emphasizes the role of the PHCs management level in supporting the non-punitive culture, encouraging reporting and discussion of events, and refers to the role of staff awareness in reporting events.

About the non- punitive response to the error domain, staff feels like their mistakes were held against them, 48.7% of respondents agreed and strongly agreed with it, and around 30% of respondents were neutral. While staff worries that mistakes they make were kept in their personnel file score, 57.3% of respondents agreed and strongly agreed and 22.9% were neutral with this question. This referred to the negative impression of the PHCs staff toward the PHC managements' dealing that uses errors with their negative sounds and put it in the negative personnel level. It also doesn't consider the outcome of knowledge that can benefit the PHCs level from these mistakes. Also, it referred to the necessity of the working staff to take their responsibility of their actions and work hard to learn from

errors. The result is higher than the study conducted in Gaza hospital and Tunisia study at PHCs 48%, 36.5% subsequently (Saqqa, 2015) (Tlili et al., 2020), but its lower than the study conducted in Egypt with 66.7% (Mohamed et al., 2015).

**Table 4.12: Distribution of responses in relation to non-punitive response domain**

| Domain/questions | S/disagree | | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Staff feel like their mistakes are held against them* | No | 24 | 54 | 108 | 133 | 44 | 363 | 3.3 | 66.0 |
| | % | 6.6 | 14.9 | 29.8 | 36.6 | 12.1 | 100 | | |
| When an event is reported, it feels like the person is being written up, not the problem* | No | 46 | 80 | 125 | 77 | 34 | 362 | 2.9 | 58.0 |
| | % | 12.7 | 22.1 | 34.5 | 21.3 | 9.4 | 100 | | |
| Staff worry that mistakes they make are kept in their personnel file* | No | 20 | 52 | 83 | 159 | 49 | 363 | 3.9 | 78.0 |
| | % | 5.5 | 14.3 | 22.9 | 43.8 | 13.5 | 100 | | |
| **Total** | | | | | | | | | **64.0** |

*The mean was inverted due to the negative word or negative expression of the questions

### 4.1.5 Across units/clinic level domains

**Management support**

The PHCs management support means percentage is 71%, which is good, but we still need more effort to improve the quality of services and reduce the unsafe act. This percentage is higher than the results of studies conducted in Tunisia and Gaza hospitals with 51.1%, 62% subsequently (Tlili et al., 2020) (Saqqa, 2015), but it is lower than the result of the study conducted in Egypt with 80% (Mohamed et al., 2015).

Due to the actions of PHCs management levels, 15% of the participants showed they were disagreeing and strongly disagreed with the statement that the patient safety is a top priority, but 30% of them agreed and strongly agreed with the statement that PHCs

management seems interested in-patient safety only after an adverse event happened. The researcher implies that this pretends to be contradictory because top priority means each time in each activity, but the justification here was that the safety actions became more noticeable and more obvious for about half of the respondent staff only when adverse events occurred.

**Table 4.13: Distribution of responses in relation to PHCs management support for patient safety domain**

| Domain/questions | | S/disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| PHCs management provides a work climate that promotes patient safety | No | 25 | 45 | 82 | 185 | 26 | 363 | 3.4 | 68.0 |
| | % | 6.9 | 12.4 | 22.6 | 51 | 7.2 | 100 | | |
| The actions of PHCs management show that patient safety is a top priority | No | 20 | 33 | 103 | 156 | 50 | 262 | 3.5 | 70.0 |
| | % | 5.5 | 9.1 | 28.5 | 43.1 | 13.8 | 100 | | |
| PHCs management seems interested in-patient safety only after an adverse event happens* | No | 40 | 96 | 113 | 97 | 16 | 262 | 2.9 | 58.0 |
| | % | 11 | 26.5 | 31.2 | 26.8 | 4.4 | 100 | | |
| Total | | | | | | | | | **71.0** |

*The mean was inverted due to the negative word or negative expression of the questions

### Team work across

The team work across PHCs units mean percentage 60% is much lesser than team work within PHCs units 81%. Team within the unit is approximately similar to studies that were conducted in Kuwait and Gaza hospitals with 56%,64% subsequently (Ghobashi et al., 2014) (Saqqa, 2015). This reflected there was a weakness in the relation between the different units as there were vague rules and protocols that regulate the relationships across

units. This highlighted the importance of preparing clear protocols and guidelines to define the tasks and its related duties of each unit and control its relation with the other units.

**Table 4.14: Distribution of responses in relation to Teamwork across PHCs units' domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| PHCs units do not coordinate well with each other* | No | 54 | 169 | 76 | 55 | 9 | 363 | 2.4 | 48.0 |
| | % | 14.9 | 46.6 | 20.9 | 15.2 | 2.5 | 100 | | |
| There is a good cooperation among PHCs units that need to work together | No | 7 | 36 | 71 | 209 | 40 | 363 | 3.7 | 74.0 |
| | % | 1.9 | 9.9 | 19.6 | 57.6 | 11 | 100 | | |
| It is often unpleasant to work with staff from other PHCs units* | No | 64 | 157 | 84 | 51 | 6 | 362 | 2.4 | 48.0 |
| | % | 17.7 | 43.4 | 23.2 | 14.1 | 1.7 | 100 | | |
| PHCs units work well together to provide the best care for patients | No | 16 | 23 | 76 | 191 | 57 | 363 | 3.7 | 74.0 |
| | % | 4.4 | 6.3 | 20.9 | 52.9 | 15.7 | 100 | | |
| **Total** | | | | | | | | | **60.0** |

*The mean was inverted due to the negative word or negative expression of the questions

With teamwork across units' domains, 10% only of respondents disagreed with the statement referred to that PHC units work well together to provide the best care for patients, and this coincidence with the other statement indicated that there was good cooperation among hospital units that need to work together with disagree percentage was 11%. The researcher explained that this explored that the staff in units work together due to the obligatory routine working regulation system and because of internal conviction to achieve the best care for patients. So, there were positive clues to put the patients' safety as priority in the daily work in PHCs and benefit from the good cooperation between PHCs units to enhance the introduced care services in all of the PHCs capacities. According to a study that was conducted in Tunisia 54% of participants have good cooperation between PHCs units to enhance the introduced care services (Tlili et al., 2020). Another study was conducted in

Alexandria, the results show 57% of participants have good cooperation between PHCs units to enhance the introduced care services (Mohamed et al., 2015).

### Transition and handoff

The lowest percentage score was for the transition domain with 52%, it was lower than the study conducted in Egypt with 75% (Mohamed et al., 2015) and higher than the study conducted in Oman with 44% (Mandhari et al., 2014). So, the researcher indicates that it needs well-defined strategies and procedures to facilitate the managerial operational actions. In addition to implementing effective communication ways that guarantee successful staff shifts and more integrated services.

When asking the participants about, Things "fall between the cracks" when transferring patients from one unit to another 57% disagreed and strongly disagreed with that.

**Table 4.15: Distribution of responses in relation to PHCs Transitions and Handoffs domain**

| Domain/questions | | S/Disagree | Disagree | Neutral | Agree | S/Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| Things "fall between the cracks" when transferring patients from one unit to another* | No | 49 | 158 | 112 | 37 | 7 | 363 | 2.4 | 48.0 |
| | % | 13.5 | 43.5 | 30.9 | 10.2 | 1.9 | 100 | | |
| Important patient care information is often lost during shift changes* | No | 72 | 141 | 100 | 40 | 10 | 363 | 2.4 | 48.0 |
| | % | 19.8 | 38.6 | 28.4 | 19.8 | 2.2 | 100 | | |
| Problems often occur in the exchange of information across clinic units* | No | 47 | 133 | 103 | 72 | 8 | 363 | 2.6 | 52.0 |
| | % | 12.9 | 36.6 | 28.4 | 19.8 | 2.2 | 100 | | |
| Shift changes are problematic for patients in this clinic* | No | 31 | 76 | 93 | 133 | 30 | 363 | 3.2 | 64.0 |
| | % | 8.5 | 20.9 | 25.6 | 36.6 | 8.3 | 100 | | |
| **Total** | | | | | | | | | **52.0** |

*The mean was inverted due to the negative word or negative expression of the questions

## 4.2 The outcomes of patient safety culture domains perception

### Overall perceptions

The overall perception of safety culture elicited 66%, it was higher than the study conducted in Oman with 58% (Mandhari et al., 2014) and lower than the study conducted in Egypt with 68.6% (Mohamed et al., 2015). The result of this variable could reflect the high reliability of the participants' responses in this study as its score of it was roughly proximate to the total score of all dimensions. So, there was an acceptable level of safety culture in the surveyed PHCs. This stimulates the projection of more effective safety initiatives, programs, and courses to put the PHCs in the mode of a patient-centered, and healing environment to ensure the patient's safety.

In the overall perceptions, the researcher found that about 31% agree and strongly agree that patient safety problems in this unit and 45% of participants agree that just by chance that more serious mistakes didn't happen around here. Also, 16% of respondents disagreed and strongly disagreed that "patient safety is never sacrificed to get more work done". The researcher indicates that this doesn't sound well and there is a need to organize the PHCs routine work and ensure avoiding safety problems by cooperating with the PHCs providers to reduce errors and to be well prepared to avoid any unplanned accident.

**Table 4.16: The outcome measurement of overall perceptions of safety domain**

| Outcome/questions | | S/Disagree | Disagree | Neutral | S/Agree | Agree | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| It is just by chance that more serious mistakes don't happen around here* | No | 41 | 83 | 74 | 114 | 51 | 363 | 3.1 | 62.0 |
| | % | 11.3 | 22.9 | 20.4 | 31.4 | 14 | 100 | | |
| Patient safety is never sacrificed to get more work done | No | 23 | 36 | 51 | 157 | 95 | 262 | 3.7 | 74.0 |
| | % | 6.4 | 9.9 | 14.1 | 43.4 | 26.2 | 100 | | |
| Patient safety problems is found in this unit* | No | 31 | 107 | 112 | 92 | 21 | 363 | 2.9 | 58.0 |
| | % | 8.5 | 29.5 | 30.9 | 25.3 | 5.8 | 100 | | |
| Procedures and systems are good at preventing errors from happening | No | 5 | 57 | 99 | 170 | 32 | 363 | 3.5 | 70.0 |
| | % | 1.4 | 15.7 | 27.3 | 46.8 | 8.8 | 100 | | |
| **Total** | | | | | | | | | **66.0** |

*The mean was inverted due to the negative word or negative expression of the questions

**Events reporting**

The frequency of event reporting elicited 60%, it is low and needs more and continuous work on it, the reporting must be strengthened to avoid the unsafe act and to reduce the medical errors. The result of this study was higher than the result of the study that was conducted in Oman with 58% (Mandhari et al., 2014) and lower than the study conducted in Egypt with 68.6% (Mohamed et al., 2015). The result of the variable could reflect the high reliability of the participants' responses as the score of it was roughly proximate to the total score of all dimensions. So, there was an acceptable level of safety culture in the surveyed PHCs. This stimulates the projection of more effective safety initiatives, programs and courses to put the PHCs in the mode of patient-centered, and healing environment to ensure patient safety.

However, 35% of respondents they always and often reported that "when a mistake is made but has no potential to harm the patient, and 39.4% of respondents always and often reported that "when a mistake is made that could harm the patient but does not, it is reported". This emphasizes the essential need to encourage reporting events whether it harms the patients or not, to benefit from these reports in avoiding repeating medical errors.

**Table 4.17: The outcome measurement of the frequency of event reporting domain**

| Outcome/questions | | Never | Rarely | Sometimes | Often | Always | Total | Mean | Mean % |
|---|---|---|---|---|---|---|---|---|---|
| When a mistake is made, but is caught and corrected before affecting the patient, how often is this reported? | No | 49 | 73 | 98 | 99 | 44 | 363 | 3.04 | 60.0 |
| | % | 13.5 | 20.1 | 27 | 27.3 | 12.1 | 100 | | |
| When a mistake is made, but has no potential to harm the patient, how often is this reported? | No | 61 | 74 | 100 | 97 | 31 | 363 | 2.9 | 58.0 |
| | % | 16.8 | 20.4 | 27.5 | 26.7 | 8.5 | 100 | | |
| When a mistake is made that could harm the patient, but does not, how often is this reported? | No | 55 | 61 | 104 | 94 | 49 | 363 | 3.1 | 62.0 |
| | % | 15.2 | 16.8 | 28.7 | 25.9 | 13.5 | 100 | | |
| **Total** | No | | | | | | | | **60.0** |

*The mean was inverted due to the negative word or negative expression of question

The findings of this study are encouraging, as these are higher than other studies

Huge variations were noticed in non-punitive responses varying from 24% in Kuwait to 67% in Egypt.

**Table 4.18: The differences of mean percentage between this study and countries in the region in each domain**

| Patient safety culture domains% | Gaza-PHC | Kuwait | Egypt | Oman | Tunisia | Gaza hospital |
|---|---|---|---|---|---|---|
| Safety grade (excellent/v. good %) | 69 | 85 | 22 | 85 | 42.7 | 66.9 |
| Staffing | 83 | 41 | 60 | 30 | 34.7 | 58 |
| Teamwork within units | 81 | 82 | 80 | 83 | 70.6 | 78 |
| Organizational learning and improvement | 70 | 75 | 73.3 | 84 | 48.7 | 72 |
| Non punitive response | 64 | 24 | 66.7 | 25 | 36.5 | 48 |
| Communication openness | 59 | 45 | 66.7 | 54 | 42 | 64 |
| PHCs management support for safety | 71 | 78.4 | 80 | 67 | 51.1 | 62 |
| Teamwork cross PHCs units | 60 | 56 | 70 | 64 | 45.9 | 64 |
| Feedback and communication about errors | 65 | 42 | 66.7 | 62 | 53.5 | 68 |
| PHCs handoffs and transitions | 52 | 47 | 75 | 44 | 45 | 64 |
| Supervisors' expectation and actions | 58 | 48 | 75 | 60 | 53.4 | 62 |
| Frequency of reporting events | 60 | 32 | 43 | 65 | 27.7 | 68 |
| Overall perception of safety | 66 | 61 | 60 | 53 | 62 | 62 |

## 4.3 Inferential analysis

**Table 4.19: Differences in patient safety culture total scores in reference to the work categories, departments, gender and PHCs governorates.**

| Variables | Category | No. | Mean overall patient safety score | F | Sig. |
|---|---|---|---|---|---|
| **Personnel category** | Nurse | 126 | 65.8 | 2.5 | 0.036* |
| | Doctors | 65 | 63.1 | | |
| | Pharmacist | 33 | 65.1 | | |
| | Manager | 71 | 64.6 | | |
| | Others | 68 | 64.7 | | |
| **Area of work** | MCH | 94 | 65.1 | .72 | 0.627 |
| | General clinic | 90 | 65 | | |
| | Pharmacy | 40 | 65.8 | | |
| | Paramedics | 50 | 63.9 | | |
| | Others | 62 | 64.8 | | |
| | Multidepartment | 26 | 63.7 | | |
| **Center location** | Gaza | 104 | 64.5 | .812 | 0.518 |
| | North | 47 | 64.7 | | |
| | Dair | 49 | 66 | | |
| | Khan younis | 95 | 64.4 | | |
| | Rafah | 68 | 65.4 | | |
| **Age groups** | Up to 30 | 71 | 64.2 | 1.3 | 0.27 |
| | 31-40 | 128 | 64.3 | | |
| | 41-50 | 113 | 65.6 | | |
| | More than 50 | 48 | 65.3 | | |
| **Gender** | Male | 132 | 65.1 | 1.1 | 0.28 |
| | Female | 231 | 64.7 | | |

*Statistically significant

To compare the total score of all dimensions' constituting the safety culture domains of the different disciplines, ANOVA test was performed and showed that nurses elicited the highest scores (65.8%) and physicians elicited the lowest scores (63.1%), other professions were in between. The differences between the disciplines were statistically

significant (p value =0.036). To recognize the significant statistical differences across the different disciplines, Scheffe's test was performed and showed that the significant differences were between the total score of all dimensions with personal categories. There was a statistically significant difference between nurses and doctors in safety culture domains (Mean differences 2.8, sig .002). On the other hand, there was a statistically significant difference between pharmacists and doctors in safety culture domains with pharmacists scoring higher mean (Mean differences 2.7, sig .03). So, the researcher refers to the necessity to focus more on physicians to promote them developing their skills and attitudes toward the safety issues as they were the primary line dealing with patients. Also, the clinic seniors required special attention as they had low level of safety culture and this may lead to critical consequences on their outcomes.

Regarding governorates, ANOVA test shows that Deir Al Balah governorate had the highest means with 66% respectively, but Khanyounis governorate had the lowest mean percent with 64.4%. The differences between these means were not statistically significant (p- value .627).

Regarding the departments, the pharmacy had the highest mean percent of the patient safety culture perception with 65.8%, but the multi_department had the lowest mean percent with 63.7% respectively. The differences of these means are not statistically significant at p- value .627.

Regarding whether receiving training makes a difference or not in perceptions about satisfaction, t-test pointed out statistically significant variances among staff members who received training and those who didn't receive training in overall perceptions about patient safety (t= 3.17, P = 0.002). Staff who received training had a high mean percentage (mean = 65.3%) compared to the staff members who didn't receive training (mean = 62.9%), trained staff had more positive perceptions about patient safety culture than colleagues who didn't receive training.

Regarding the availability of protocols for safety, t-test pointed out statistically significant differences among staff who reported having protocols for patient safety culture and those who reported not having protocols in the overall perceptions about patient safety (t = 3.8, P = 0.001). The presence of protocols was more associated with higher mean (mean = 65.8%) and good perceptions in comparison with the absence of protocols (mean = 62.7%). t-test pointed out statistically significant variances among participants who reported that supervisors check on patients' safety and those who reported that supervisors don't check on patient safety (t = 7.4, P = .001). Those who said that supervisors check safety had higher mean and more positive perceptions about patient safety (mean = 66.1%) compared to staff members who said that supervisors don't check on patient safety (mean = 60.9%). Previous work at hospitals or receiving a salary in full didn't make any significant differences in perceptions (see table 4.20).

**Table 4.20: Differences in overall perception about patient safety in relation to organizational variables**

| **Independent Variables** | | **N** | **Mean** | **SD** | **t** | **Sig.** |
|---|---|---|---|---|---|---|
| **Received training** | Yes | 284 | 65.3 | 5.94 | 3.177 | 0.002* |
| | No | 76 | 62.9 | 6.25 | | |
| **Availability of protocols for safety** | Yes | 275 | 65.8 | 5.5 | 3.8 | 0.001* |
| | No | 87 | 62.7 | 7.2 | | |
| **Supervisor checks on safety issues** | Yes | 274 | 66.1 | 5.3 | 7.4 | 0.001* |
| | No | 89 | 60.9 | 6.5 | | |
| **Previous work at hospitals before** | Yes | 219 | 64.6 | 6.5 | -1.14 | 0.25 |
| | No | 144 | 65.3 | 5.3 | | |
| **Receiving salary in full** | Yes | 122 | 64.5 | 6.4 | -.82 | 0.41 |
| | No | 241 | 65.1 | 5.9 | | |

*Statistically significant

Females had the highest score of " no reporting events" (73.6%), while the male had the lowest score about "no reporting event (59.8%). Males reported (18.2%) three and more events much more than females (7.4%) and the differences in reporting errors are

statistically significant (P value .003). The Gaza governorate had the highest score of reporting zero events with (75%), while the Khan Younis governorate had the lowest score with (60%). Rafah governorate had the highest score of reporting three and more events with (19.1%), while the Khan Younis governorate had the lowest score with (7.4%). Variations between governorates in reporting errors and the number of reporting errors are statistically significant (P value .01)

Staff who received training had a higher score of reporting three and more events (13.6%), than staff who didn't receive training (2.6%). Differences in reporting errors by receiving training or not are statistically significant (P value .001). Similarly, those who reported that their supervisors check safety issues had a higher score of reporting three and more events (12.8%), than staff who said that supervisors don't check safety issues (6.7%) with statistically significant differences (P value .001). Moreover, the presence of protocols for safety was more associated with greater reporting of errors as 12.7% of staff who said there are protocols for safety reported three or more errors, while it was 6.9% among their counterparts who said they don't have protocols for safety and the differences among the two subgroups are statistically significant (P value .024).

**Table 4.21: Differences in reporting errors by organizational and characteristic variables**

| **Variables** | **Reporting errors** | | | | | | $X^2$ | **P value** |
|---|---|---|---|---|---|---|---|---|
| | No reporting of errors | | Up to two errors | | Three and more | | | |
| | # | % | # | % | # | % | | |
| **Gender** | | | | | | | | |
| Male | 79 | 59.8 | 29 | 22 | 24 | 18.2 | 11.38 | 0.003* |
| Female | 170 | 73.6 | 44 | 19 | 17 | 7.4 | | |
| **Governates** | | | | | | | | |
| Rafah | 44 | 64.7 | 11 | 16.2 | 13 | 19.1 | 18.49 | 0.01* |
| Khanyounis | 57 | 60 | 31 | 32.6 | 7 | 7.4 | | |
| Deir Al Balah | 35 | 71.4 | 10 | 20.4 | 4 | 8.2 | | |
| Gaza | 78 | 75 | 15 | 14.4 | 11 | 10.6 | | |
| North Gaza | 35 | 74.5 | 6 | 12.8 | 6 | 12.8 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Receiving training on safety** | | | | | | | | |
| Yes | 181 | 63.3 | 66 | 23.1 | 39 | 13.6 | 17.98 | 0.001* |
| No | 68 | 88.3 | 7 | 9.1 | 2 | 2.6 | | |
| **Supervisor checks safety issues** | | | | | | | | |
| Yes | 176 | 64.2 | 63 | 23 | 35 | 12.8 | 9.8 | 0.007* |
| No | 73 | 82 | 10 | 11.2 | 6 | 6.7 | | |
| **Presence of safety protocols** | | | | | | | | |
| Yes | 179 | 64.9 | 62 | 22.5 | 35 | 12.7 | 7.48 | 0.024* |
| No | 70 | 80.5 | 11 | 12.6 | 6 | 6.9 | | |

**Statistically significant*

# Chapter Five

# Conclusions and Recommendations

## 5.1 Conclusion

Well-designed patient safety initiatives in PHC services based on systematic interventions are needed to be integrated with organizational policies, particularly the pressing need to address the bioethical component of medical errors and their disclosure, communication openness and emotional issues related to them and invest the bright areas of skillful organizational learning and strong team working attitudes. This is the first study aiming to assess the patient safety culture in PHCs in Gaza as it becomes a more important issue. So, the researcher conducted it in the five governorates of Gaza at governmental PHCs to reflect the safety culture reality at these governorates. Therefore, a cross sectional study design using an international self-administered questionnaire and multi-stage sampling techniques had been conducted to achieve this purpose. Analysis of variances, cross-tabulation for main findings and advanced statistical tests such as T-test, and one-way analysis of variances (ANOVA) had been used.

The study results showed good percentage scores achieved that dimension was similar or slightly higher than all studies conducted in the region, which must be an incentive to all of the healthcare stakeholders to improve and progress. Nonetheless, the higher scores of the dimensions may reflect the undermined awareness the PHCs staff have about the ideal aspect of these dimensions.

The similarity in the scores' levels in most of the dimensions revealed the culture's reaching level that was already present in Gaza PHCs. This implicated the strength of the relation between these dimensions, and refers to the impact each dimension has on the other dimension. So, when a safety culture initiative or program focuses on some of the safety culture's dimensions, the positive effects will actually be reinforced in other dimensions.

The teamwork within PHCs dimensions was the staffing and teamwork within unit defined as a strong area according to the HSOPSC guide, because its percentage score above %75, which appraised a good spirit between the PHCs staff in favor of accomplished work and there is a well qualified team present in Gaza PHCs. On the other hand, the PHCs transition and handoff was the area defined as a weakened area due to its score of around %50, which indicated the challenge faced by the PHCs staff in transition.

## 5.2 Recommendations

1. The study has assessed staff perceptions about the dimensions of patient safety at PHC centers and identified areas for potential improvement. Health policy makers, PHC managers and staff can use these dimensions as a frame to assess and improve patient safety at PHC centers.
2. Ensuring that updated protocols for patient safety are in place, and staff comply with these protocols in their daily practices
3. Providing training on patient safety to health care providers as a part of educational programs at PHC centers.
4. Reinforce reporting practices at PHC centers. Ensuring that an integrated well-defined reporting system is available at PHC centers to encourage timely reporting of events and learning from mistakes. This also includes openly disseminating information among staff.
5. The study concluded that staffing level, teamwork within PHC units and organizational learning are the dimensions that elicited the highest scores. These must be sustained, even, and reinforced.
6. Promoting effective, open and transparent communications within PHC centers elicited a low score, therefore it is essential to reinforce that by using different communication channels.
7. Handoffs and transitions domains elicit the lowest score and require a lot of attention. It is essential to set policies to ensure that transition of care is smooth and safe. Developing a continuum of care model for PHC services and for referral services is essential.
8. The study revealed that non-punitive response to the error is among the dimensions that elicited a low score, therefore more efforts are needed to address that including promoting a just culture to balance between the requisite to report errors and the approaches to prevent errors.
9. Adopt a system thinking approach for dealing with reporting errors, particularly avoiding blame culture.
10. Reinforce the management role in adopting the patient safety culture as a part of the daily work performance and the cultural development strategy. This includes incorporating a safety culture in day-to-day work, processes, and discussions.
11. Encouraging PHC supervisors to take a part in supporting patient safety including incorporating safety as an essential component of supervisory practices.

## 5.3 Research recommendations

1. Specific studies for each dimension of the patient safety culture separately are needed.
2. Studying patients/beneficiaries' perspectives about patient safety at PHC.
3. In-depth research about the role of the different managerial levels and their attitudes and behaviors in promoting the patient safety culture.

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# Annexes:

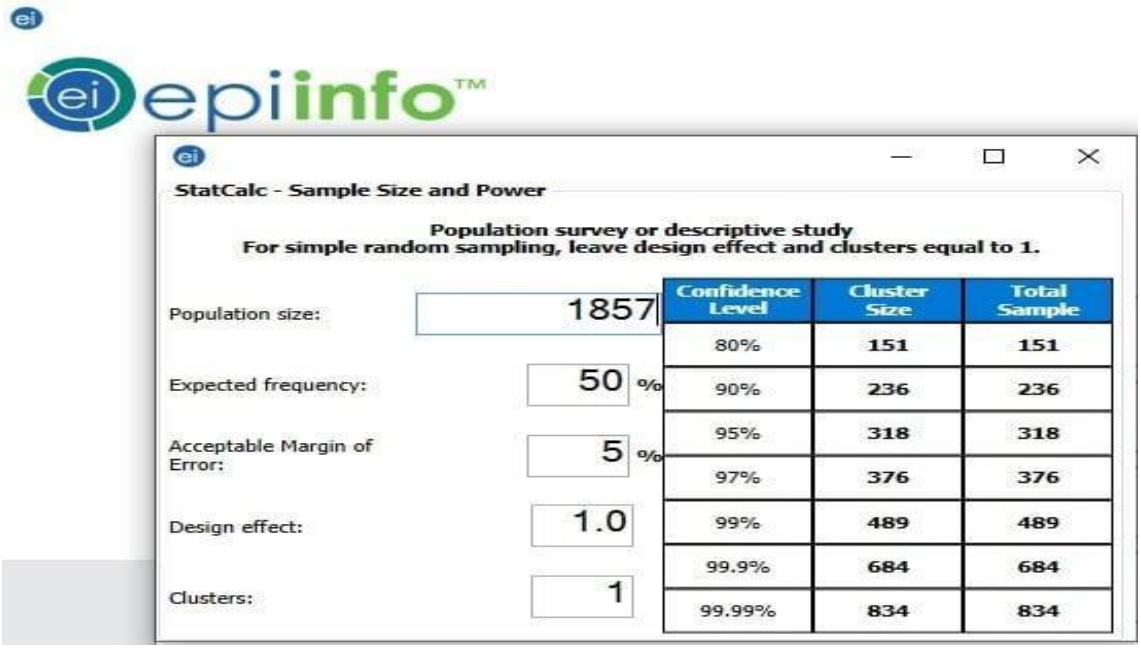
### Annex 1: Levels of PHC centers

- First level provides preventive services as maternal and child health care, immunization (vaccination), and health education furthermore they provide medical services as first aid.
- Second level provides preventive services as maternal and child health care, immunization, and health education. Moreover, they provide treatment services as general medicine and laboratory (in some clinics).
- Third level provides preventive services as maternal and child health care, immunization, family planning, health education. Also, therapeutic services as general medicine, specialized medical laboratory, dentistry and specialty clinics.
- Fourth level provides preventive services as maternal and child health care, immunization, family planning, and health education. On the other hand, they provide treatment services as general medicine, dentistry, specialty clinics, a specialized medical laboratory, and radiology.

## Annex 2: Table: Time framework of the study

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **March** | | | | | | | | |
| **February** | | | | | | | | |
| **January** | | | | | | | | |
| **December** | | | | | | | | |
| **November** | | | | | | | | |
| **October** | | | | | | | | |
| **September** | | | | | | | | |
| **August** | | | | | | | | |
| **July** | | | | | | | | |
| **June** | | | | | | | | |
| **May** | | | | | | | | |
| **April** | | | | | | | | |
| **March** | | | | | | | | |
| **February** | | | | | | | | |
| **January** | | | | | | | | |
| **Duration** | 1 month | 2 months | 1 month | 2 weeks | 2 months | 3 months | 3 months | 4 months |
| **Activity** | Proposal Discussion and approval | Development of instruments | Experts check for validity of instruments | Update instruments | Data collection | Data entry | Data Analysis | Writing report |

## Annex 3: Sample size



**Annex 4: Helsinki Committee**

المجلس الفلسطيني للبحث الصحي

Palestinian Health Research Council

تطوير النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار

Developing the Palestinian health system through institutionalizing the use of information in decision ma

## Helsinki Committee

**For Ethical Approval**

**Date: 15\02\2021** **Number:** PHRC/HC/861/21

**Name:** Wattan Bassam Abu Hamad الاسم:

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

**Safety Culture at Governmental Primary Health Care Centers in the Gaza Strip**

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/861/21 in its meeting on 15\02\2021

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

**Signature**

**Member** **Member**

Dr. Yehia Ab

**Chairman**

23 2021

**Genral Conditions:-**

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

**Specific Conditions:-**

## Annex 5: Hospital Survey on patient safety culture

# HOSPITAL SURVEY ON PATIENT SAFETY CULTURE

### INSTRUCTIONS

**This survey asks for your opinions about patient safety issues, medical error, and event reporting in your hospital and will take about 10 to 15 minutes to complete.**

- *An "event" is defined as any type of error, mistake, incident, accident, or deviation, regardless of whether or not it results in patient harm.*
- *"Patient safety" is defined as the avoidance and prevention of patient injuries or adverse events resulting from the processes of health care delivery.*

**SECTION A: Your Work Area/Unit**

**In this survey, think of your "unit" as the work area, department, or clinical area of the hospital where you spend *most* of your work time or provide *most* of your clinical services.**

**What is your primary work area or unit in this hospital? Mark ONE answer by filling in the circle.**

○ a. Many different hospital units/No specific unit

○ b. Medicine (non-surgical)
○ c. Surgery
○ d. Obstetrics
○ e. Pediatrics
○ f. Emergency department
○ g. Intensive care unit (any type)
○ h. Psychiatry/mental health
○ i. Rehabilitation
○ j. Pharmacy
○ k. Laboratory
○ l. Radiology
○ m. Anesthesiology
○ n. Other, please specify:

**Please indicate your agreement or disagreement with the following statements about your work area/unit. Mark your answer by filling in the circle.**

| Think about your hospital work area/unit… | Strongly Disagree ▼ | Disagree ▼ | Neither ▼ | Agree ▼ | Strongly Agree ▼ |
|---|---|---|---|---|---|
| 1. People support one another in this unit | ① | ② | ③ | ④ | ⑤ |
| 2. We have enough staff to handle the workload | ① | ② | ③ | ④ | ⑤ |
| 3. When a lot of work needs to be done quickly, we work together as a team to get the work done | ① | ② | ③ | ④ | ⑤ |
| 4. In this unit, people treat each other with respect | ① | ② | ③ | ④ | ⑤ |
| 5. Staff in this unit work longer hours than is best for patient care | ① | ② | ③ | ④ | ⑤ |
| 6. We are actively doing things to improve patient safety | ① | ② | ③ | ④ | ⑤ |
| 7. We use more agency/temporary staff than is best for patient care | ① | ② | ③ | ④ | ⑤ |
| 8. Staff feel like their mistakes are held against them | ① | ② | ③ | ④ | ⑤ |
| 9. Mistakes have led to positive changes here | ① | ② | ③ | ④ | ⑤ |
| 10. It is just by chance that more serious mistakes don't happen around here | ① | ② | ③ | ④ | ⑤ |
| 11. When one area in this unit gets really busy, others help out | ① | ② | ③ | ④ | ⑤ |
| 12. When an event is reported, it feels like the person is being written up, not the problem | ① | ② | ③ | ④ | ⑤ |

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## SECTION D: Frequency of Events Reported

**In your hospital work area/unit, when the following mistakes happen, *how often are they reported?***
**Mark your answer by filling in the circle.**

| | Never ▼ | Rarely ▼ | Some-times ▼ | Most of the time ▼ | Always ▼ |
|---|---|---|---|---|---|
| 1. When a mistake is made, but is *caught and corrected before affecting the patient*, how often is this reported? | ① | ② | ③ | ④ | ⑤ |
| 2. When a mistake is made, but has *no potential to harm the patient*, how often is this reported? | ① | ② | ③ | ④ | ⑤ |
| 3. When a mistake is made that *could harm the patient*, but does not, how often is this reported? | ① | ② | ③ | ④ | ⑤ |

## SECTION E: Patient Safety Grade

**Please give your work area/unit in this hospital an overall grade on patient safety. Mark ONE answer.**

| ○ | ○ | ○ | ○ | ○ |
|---|---|---|---|---|
| **A** | **B** | **C** | **D** | **E** |
| Excellent | Very Good | Acceptable | Poor | Failing |

## SECTION F: Your Hospital

**Please indicate your agreement or disagreement with the following statements about your hospital.**
**Mark your answer by filling in the circle.**

| Think about your hospital… | Strongly Disagree ▼ | Disagree ▼ | Neither ▼ | Agree ▼ | Strongly Agree ▼ |
|---|---|---|---|---|---|
| 1. Hospital management provides a work climate that promotes patient safety | ① | ② | ③ | ④ | ⑤ |
| 2. Hospital units do not coordinate well with each other | ① | ② | ③ | ④ | ⑤ |
| 3. Things "fall between the cracks" when transferring patients from one unit to another | ① | ② | ③ | ④ | ⑤ |
| 4. There is good cooperation among hospital units that need to work together | ① | ② | ③ | ④ | ⑤ |
| 5. Important patient care information is often lost during shift changes | ① | ② | ③ | ④ | ⑤ |
| 6. It is often unpleasant to work with staff from other hospital units | ① | ② | ③ | ④ | ⑤ |
| 7. Problems often occur in the exchange of information across hospital units | ① | ② | ③ | ④ | ⑤ |
| 8. The actions of hospital management show that patient safety is a top priority | ① | ② | ③ | ④ | ⑤ |
| 9. Hospital management seems interested in patient safety only after an adverse event happens | ① | ② | ③ | ④ | ⑤ |
| 10. Hospital units work well together to provide the best care for patients | ① | ② | ③ | ④ | ⑤ |
| 11. Shift changes are problematic for patients in this hospital | ① | ② | ③ | ④ | ⑤ |

## SECTION G: Number of Events Reported

**In the past 12 months, how many event reports have you filled out and submitted? Mark ONE answer.**

- ○ a. No event reports
- ○ b. 1 to 2 event reports
- ○ c. 3 to 5 event reports
- ○ d. 6 to 10 event reports
- ○ e. 11 to 20 event reports
- ○ f. 21 event reports or more

**SECTION A: Your Work Area/Unit (continued)**

| Think about your hospital work area/unit… | Strongly Disagree ▼ | Disagree ▼ | Neither ▼ | Agree ▼ | Strongly Agree ▼ |
|---|---|---|---|---|---|
| 13. After we make changes to improve patient safety, we evaluate their effectiveness | ① | ② | ③ | ④ | ⑤ |
| 14. We work in "crisis mode" trying to do too much, too quickly | ① | ② | ③ | ④ | ⑤ |
| 15. Patient safety is never sacrificed to get more work done | ① | ② | ③ | ④ | ⑤ |
| 16. Staff worry that mistakes they make are kept in their personnel file | ① | ② | ③ | ④ | ⑤ |
| 17. We have patient safety problems in this unit | ① | ② | ③ | ④ | ⑤ |
| 18. Our procedures and systems are good at preventing errors from happening | ① | ② | ③ | ④ | ⑤ |

**SECTION B: Your Supervisor/Manager**

**Please indicate your agreement or disagreement with the following statements about your immediate supervisor/manager or person to whom you directly report. Mark your answer by filling in the circle.**

| | Strongly Disagree ▼ | Disagree ▼ | Neither ▼ | Agree ▼ | Strongly Agree ▼ |
|---|---|---|---|---|---|
| 1. My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures | ① | ② | ③ | ④ | ⑤ |
| 2. My supervisor/manager seriously considers staff suggestions for improving patient safety | ① | ② | ③ | ④ | ⑤ |
| 3. Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts | ① | ② | ③ | ④ | ⑤ |
| 4. My supervisor/manager overlooks patient safety problems that happen over and over | ① | ② | ③ | ④ | ⑤ |

**SECTION C: Communications**

**How often do the following things happen in your work area/unit? Mark your answer by filling in the circle.**

| Think about your hospital work area/unit… | Never ▼ | Rarely ▼ | Some-times ▼ | Most of the time ▼ | Always ▼ |
|---|---|---|---|---|---|
| 1. We are given feedback about changes put into place based on event reports | ① | ② | ③ | ④ | ⑤ |
| 2. Staff will freely speak up if they see something that may negatively affect patient care | ① | ② | ③ | ④ | ⑤ |
| 3. We are informed about errors that happen in this unit | ① | ② | ③ | ④ | ⑤ |
| 4. Staff feel free to question the decisions or actions of those with more authority | ① | ② | ③ | ④ | ⑤ |
| 5. In this unit, we discuss ways to prevent errors from happening again | ① | ② | ③ | ④ | ⑤ |
| 6. Staff are afraid to ask questions when something does not seem right | ① | ② | ③ | ④ | ⑤ |




**تعليمات:**

هذه االستبانة تهدف إلى التعرف على آرائكم حول قضايا سالمة/ حماية المرضى واألخطاء الطبية وبالغات الحوادث في عياداتكم. قد تستغرق إجابتها حوالي 01 إلى 51 دقيقة.

- الحوادث: أي نوع من االخطاء، او الحوادث، او مالم يتم تنفيذه بشكل صحيح، أو االنحراف عن الوضع السليم، بغض النظر عنما إذا تسببت بإيذاء المريض ام ال.
- سالمة/حماية المرضى: هو ما يعرف بحماية المريض من االذى ومنع وقوع اي اذى له بما في ذلك اي نتائج سلبية قد تحدث جراء تقديم الرعاية الصحية له.

**الجزء ألول )A(: العيادة/القسم / مكان العمل**

في هذه االستبانة، يعتبر القسم/ الوحدة التي تعمل بها هي اكثر مكان تقضي فيه وقت عمل او تقدم فيه خدمات مباشرة أو غير مباشرة للمرضى .

**اسم العيادة:.....**

**الجنس : .....**

**العمر: .....**

■ **اختر إجابة واحدة من فضلك بتحديد المربع :**

**في أي قسم تعمل؟**

| | | |
|---|---|---|
| 1. اقسام متعددة / ليس هناك قسم محدد | | |
| 2. العيادة العامة | 7. تنظيم االسرة | 12 . االشعة |
| 3. الجراحة الصغرى | 8. االسنان | 13 . أخرى الرجاء التحديد ..... |
| 4. رعاية الحمل | 9. التأهيل والعالج الطبيعي | |
| 5. أألطفال | 10. الصيدلية | |
| 6. التطعيم | 11. المختبر | |

**الرجاء أن تختار مدى موافقتك او رفضك للجمل التالية فيما يتعلق بالقسم الذي تعمل به بتحديد اجابتك في المربع.**

| | استنادا/ بخصوص القسم الذي تعمل به..... | معارض بشدة | معارض | محايد | موافق | موافق بشدة |
|---|---|---|---|---|---|---|
| .1 | يساند كل من العاملين بعضهم بعضا في قسمي | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .2 | لدينا كادر كاف للقيام بأعباء العمل | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .3 | عندما يكثر العمل ويتطلب انجا ًزا سري ًعا، يعمل الجميع سوية كفريق واحد إلنجازه | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .4 | يحترم جميع افراد قسمي بعضهم البعض | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .5 | يعمل كادر القسم لساعات طويلة مما قد يؤثر سلبا على رعاية/ سالمة المريض | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .6 | نعمل بجد ونشاط لتحسين سالمة/حماية المرضى | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .٧ | نستخدم موظفين مؤقتين أو من اقسام أخرى مما قد يؤثر سلبا على رعاية/ سالمة المريض. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .٨ | يشعر الموظفون أن أخطاءهم تسجل ضدهم/ محسوبة عليهم | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| .٩ | ارتكاب االخطاء أدى إلى تغييرات إيجابية في قسمنا | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .٠1 | لعلها الصدفة ان االخطاء االكثر خطورة ال تحدث في قسمنا | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .11 | عندما ينشغل جزء من القسم كثيرا فان االخرون يساعدونهم | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .21 | عندما يكتب تقرير حادثة ، فانه يسود شعور بان التقرير عن الشخص وليس عن المشكلة | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .31 | عندما نجري تغييرات لتحسين سالمة/حماية المرضى، فإننا نقوم بتقييم فعاليتها | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .41 | نعمل كما لوكنا " نمر بأزمة "محاولين عمل الكثير وبسرعة كبيرة | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .51 | ال يتم التضحية بحماية/سالمة المرضى إنجاز عمل أكثر ) كم العمل ليس على حساب المريض( | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .61 | يتخوف الموظفون من ان تحفظ االخطاء التي يرتكبونها في ملفاتهم | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .٧1 | لدينا مشاكل تتعلق بحماية/سالمة المرضى في العيادة | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .٨1 | اجراءات وانظمة حماية/سالمة المريض المتوفرة لدينا تقي بشكل جيد من حدوث االخطاء | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

**الجزء الثاني )B( : رئيسك المباشر / مديرك**

■ ارجو ان تحدد مدى موافقتك او رفضك للجمل التالية حول رئيسك المباشر/ مديرك أو الشخص الذي تقدم تقاريرك له، حدد إجابتك في المربع.

| | رئيسك المباشر / مديرك | معار ض بشدة | معارض | محايد | موافق | موافق بشدة |
|---|---|---|---|---|---|---|
| .1 | يمدحني رئيسي المباشر / مديري عندما اقوم بالعمل حسب اجراءات سالمة/حماية المرضى في العيادة | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .2 | يأخذ رئيسي المباشر/ مديري مقترحات الموظفين على محمل الجد لتحسين سالمة/حماية المرضى | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .3 | كلما زاد ضغط العمل فان رئيسي المباشر يطلب منا العمل بسرعة، حتى وان ادى ذلك لالختصار )في االجراءات مثال( | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .4 | أن سالمة/حماية المرضى مشاكل في مديري المباشر/ رئيسي يدقق تكرارا و حدثت مرارا | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

**الجزء الثالث (C) : االتصاالت / طرق توصيل المعلومة بين العاملين**

كم يتكرر حدوث ألشياء التالية في مكان عملك / قسمك ؟ حدد إجابتك في المربع.

| | استنادا/ بخصوص القسم الذي تعمل به..... | ال يحدث | نادرا | احيانا | غالبا | دائما |
|---|---|---|---|---|---|---|
| .1 | توضح لنا التغييرات عند تطبيقها والتي تحدث على ضوء بالغ الحادثة )التي ادت التخاذ التغيير( | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .2 | يتحدث الموظفون بحرية اذا رأوا ما يؤثر سلبا على العناية بالمريض | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .3 | يتم اعالمنا عن االخطاء التي تحدث في العيادة | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .4 | ينتقد الموظفون بحرية قرارات وافعال اصحاب السلطة العليا | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .5 | نناقش في هذا القسم سبل منع تكرار حدوث االخطاء | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .6 | يتخوف الموظفون من طرح االسئلة عندما يبدو امر ما غير صحيحا | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

**الجزء الرابع (D) تكرار االبالغ عن الحوادث**

■ كم يتكرر اإلبالغ عن االحداث التي ترتكب فيها اخطاء في مكان عملك / قسمك ؟ حدد إجابتك في المربع

| | استنادا/ بخصوص القسم الذي تعمل به..... | ال يحدث | نادرا | احيانا | غالبا | دائما |
|---|---|---|---|---|---|---|
| .1 | عندما يرتكب خطأ، ويتم ضبطه وتصحيحه قبل ايذاء المريض. هل يتم عادة االبالغ بذلك؟ | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .2 | عندما يحدث خطأ ، و لكن دون اي احتمال ان يتأذى المريض. هل يتم عادة االبالغ بذلك؟ | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .3 | عندما يحدث خطأ كان سيؤذي المريض ولكن لم يحدث له اذى .هل يتم عادة االبالغ بهذا؟ | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

**الجزء الخامس (E): تقييم مستوى سالمة المريض**

■ الر جاء أن تعطي القسم الذي تعمل به في هذه العيادة درجة لسالمة المرضى .حدد إجابة واحده.

| | | | | |
|---|---|---|---|---|
| ☐ A/ ممتازة | ☐ B/ جيدة جدا | ☐ C/ مقبولة | ☐ D/ ضعيفة | ☐ E/ متدنية |

**الجزء السادس (F): العيادة الذي تعمل بها**

■ اشر إلى أي مدى تتفق مع التصريحات/ المقولات التالية حول العيادة الذي تعمل فيه حاليا.

| | استنادا/ بخصوص العيادة الذي تعمل به..... | معارض بشدة | معارض | محايد | موافق | موافق بشدة |
|---|---|---|---|---|---|---|
| .1 | إدارة العيادة توفر جو عمل يساعد على تحسين سالمة/ حماية المرضى. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .2 | أقسام العيادة غير متعاونة بشكل جيد مع بعضها البعض. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .3 | تضيع االشياء عند تحويل المرضى | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .4 | هناك تنسيق جيد بين أقسام العيادة التي تحتاج للعمل مع بعضها | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .5 | تضيع المعلومات المهمة لرعاية المرضى بين الزيارات. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .6 | غالبا يكون العمل مع موظفين من أقسام العيادة اُلخرى غير سار/لطيف | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .7 | تحدث المشاكل غالبا عند تبادل المعلومات عبر اقسام العيادة.. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .8 | تشير أفعال إدارة العيادة أن سالمة/حماية المرضى من أولى أولوياتها | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .9 | يظهر اهتمام إدارة العيادة بسالمة/حماية المرضى فقط عند وقوع اي حدث سلبي | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .10 | تعمل أقسام العيادة مع بعضها بشكل جيد لتقديم أفضل رعاية للمرضى... | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| .11 | التغيير المستمر للطاقم يسبب مشاكل للمرضى في هذه العيادة. | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

**6. كم المدة التي أمضيتها في تخصصك أو مهنتك الحالية ؟**

| | |
|---|---|
| ☐ a. من سنة واحدة | ☐ d. 11 – 51 سنة |
| ☐ b. 5 سنوات | ☐ e. 61– 2٠ سنة |
| ☐ c. 1٠ سنوات | ☐ f. 12 سنة او اكثر |

**7.هل تلقيت تدريب على السالمة من قبل؟**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**8.هل توجد بروتوكوالت تتعلق بالسالمة ؟**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**9.يتحقق المشرف من القضايا المتعلقة بالسالمة؟**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**العمل في منظمات أخرى من قبل؟10.**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**.هل عملت في مستشفيات من قبل؟11**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**12.هل تتقاضى الراتب كاملاً؟**

| |
|---|
| ☐ **a. نعم** |
| ☐ b. . لا |

**<u>الجزء السابع (G): عدد االحداث التي يبلغ عنها</u>**

**■ <u>خالل آخر 12 شهر</u>. كم عدد االحداث التي ابلغت عنها أو كتبت عنها تقارير وقدمتها للمسؤول ؟ حدد اجابة واحدة.**
**بغض النظر عما إذا كان هذا الحادث او الضرر قد وصل إلى المريض او ال.**

| | |
|---|---|
| a. لم ابلغ عن اي حدث | d. 6 - 1٠ حدث ابلغ عنها |
| b. 1 - 2 بالغ بحادثة | e. 11 – 2٠ حدث ابلغ عنها |
| c. 3 – 5 أحداث ابلغ عنها | f. 12 حدث أو أكثر ابلغ عنها |

**الجزء الثامن (H): معلومات عامة**

ستساعد هذه المعلومات في تحليل نتائج االستبيان .الرجاء اختيار اجابة واحدة بتضليل المربع.

**1. منذ متى وانت تعمل في هذه العيادة ؟**

| | |
|---|---|
| a. أقل من 1 سنة | d. 11 – 51 سنة |
| b. 1 – 5 سنوات | e. 61 – ٠2 سنة |
| c. 6 – ٠1 سنوات | f. 12 سنة فأكثر |

**2. كم هي المدة التي أمضيتها وأنت تعمل في هذا القسم من العيادة؟**

| | |
|---|---|
| d. أقل من 1 سنة | d. 11 – 51 سنة |
| e. 1 – 5 سنوات | e. 61 – ٠2 سنة |
| c. 6 – ٠1 سنوات | f. 12 سنة فأكثر |

**3. عادة ، كم ساعة تعمل أسبوعيا في هذه العيادة؟**

| | |
|---|---|
| a. أقل من ٠2 ساعة أسبوعيا | d. ٠6 – ٩٧ ساعة في ألسبوع |
| b. 20 – 93 ساعة في االسبوع | e. ٠٨ – ٩٩ ساعة في ألسبوع |
| c. ٠4 – 95 ساعة في االسبوع | f. ٠٠1 ساعة فاكثر في االسبوع |

**. ما هو مسماك الوظيفي (ما هو عملك) في هذه العيادة؟ اختر إجابة واحدة فقط تمثل افضل مسمى وظيفي لك.**

| | |
|---|---|
| 1. ممرض قانوني / قابلة قانونية | 8. رئيس دائرة/ رئيس قسم/س شعبة |
| 2. (Practical Nurse)عملي ممرض. | 9. ب قسم / سكرتيرة |
| 3. . مشرف تمريض | 10 اري |
| 4. عامل تمريض | 11.ي عالج طبيعي أو وظيفي |
| 5. طبيب اختصاص | 12.ي ( مختبر ، أشعة) |
| 6. طبيب مقيم / طبيب متدرب | 13.يب اسنان |
| 7. صيدالني | 14. ظيفة أخرى ، حدده من فضلك: ..... |

**5. بحكم وظيفتك، هل تتعامل مباشرة مع المرضى ؟**

| |
|---|
| a. ، عادة يكون لي اتصال أو احتكاك مباشر مع المرضى. |
| b. ، عادة ال يكون لي اتصال أو احتكاك مباشر مع المرضى. |

**الجزء التاسع (I) : أي مالحظات أخرى/ تعليقاتك**

**يرجى إضافة مالحظاتك وتعليقاتك حول إلبالغ عن سالمة/حماية المرضى، أو ألخطاء أو الحوادث في العيادة التي تعمل فيها.**

.....
.....
.....
.....
.....

شكرا جزيلاً على مشاركتكم إنجاز هذه الاستبانة

**Annex 6: Estimated budget**

| Item | Unit | Expected USD | Comments |
|---|---|---|---|
| Study tools | Questionner | 100 | |
| Transportation | 3 months | 250 | 250*2 |
| Training workshop | For data collectors | 50 | Refreshments |
| Photocopy papers | | 300 | |
| Data Collectors | 350 x 5 USD for questionnaires | 1750 | |
| Data entry & Analysis | | 600 | |
| Dissemination of results | Refreshments | 50 | |
| Copy of final report | 15 copy x 15 USD | 225 | |
| **Total** | | **3325 USD** | Expected to be less or more |

**دراسة حول ثقافة السلامة في مراكز الرعاية الأولية الحكومية في قطاع غزة**

**إعداد : وطن بسام عبد الجواد أبو حمد**

**إشراف: د. معتصم حمدان**

**الملخص الدراسة**

في مجال الرعاية الصحية، تم تحديد ثقافة سلامة المرضى كعنصر حاسم في جودة الرعاية الصحية. تقيّم هذه الدراسة سلامة المرضى في مراكز الرعاية الصحية الأولية الحكومية في غزة كخطوة نحو تحسين سلامة الخدمات الصحية من خلال تحديد ومعالجة الثغرات المتعلقة بالسلامة.

أجريت هذه الدراسة المقطعية ، التي تستهدف مقدمي الرعاية الصحية العاملين في مراكز الرعاية الصحية الأولية. في المجموع ، قام 363 مشاركًا من 11 مركزًا للرعاية الصحية الأولية تم اختيارها عشوائيًا بملء استطلاع المستشفى حول ثقافة سلامة المرضى بمعدل استجابة 86٪. تم إجراء المسح ذاتيًا وتم إدخال البيانات وتحليلها باستخدام الإصدار 25 من برنامج الإحصاء SPSS IBM. تظهر اختبارات Cronbach Alpha موثوقية عالية.

كان المشاركون متنوعين حسب مواقع مراكز الرعاية الصحية الأولية الخاصة بهم ، من محافظات غزة الخمس. يمثل الذكور ثلث المشاركين وتمثل الممرضات أكبر فئة من المبحوثين (34.7٪). فيما يتعلق بالعمل في مركز الرعاية الصحية الأولية الحالي، 57٪ من المستجيبين عملوا لمدة تصل إلى 10 سنوات ؛ 43٪ عملوا لأكثر من 11 سنة. سجل قسم صحة الأمومة والطفولة أعلى نسبة (26٪)، تليها العيادة العامة بنسبة 24.9٪. عند سؤالهم عما إذا كانوا قد تلقوا تدريبًا على سلامة المرضى أم لا ، أشار أكثر من ثلاثة أرباع المشاركين إلى نعم (78.2٪) ، أشار ما يقرب من ربع المشاركين إلى أنه ليس لديهم بروتوكولات تتعلق بسلامة المرضى.

قيمت الدراسة 10 أبعاد تشكل إطارًا لبناء ثقافة سلامة المرضى. أظهرت النتائج أن النتيجة الإجمالية لجميع المجالات كانت 64.9٪ مطابقة تقريبًا لنتائج المستشفيات في غزة والضفة الغربية وتراوحت بين 52٪ إلى 83٪. في حين أن التوظيف والعمل الجماعي ضمن أبعاد الوحدات كان لهما أعلى النسب المئوية بنسبة 83٪ و 81٪ على التوالي ، إلا أن توقعات الانتقال والمشرفين وأبعاد العمل قد حققت أدنى النسب المئوية (52٪ و 53٪ على التوالي). من إجمالي المشاركين، أشار 88.7٪ إلى أن مراكز الرعاية الصحية الأولية الخاصة بهم لم تبلغ عن أي حدث خلال الاثني عشر شهرًا الماضية؛ اعتبر 69.7٪ منهم أن مراكز الرعاية الصحية الأولية لديهم ممتازة وجيدة جدًا فيما يتعلق بثقافة السلامة.

**الاستنتاجات والتوصيات**

تعتبر حالة ثقافة السلامة مقبولة، لكنها لا تزال بحاجة إلى الكثير من الجهود لتحسين الوضع في مراكز الرعاية الصحية الأولية في غزة من خلال زيادة الاهتمام بتشجيع الإبلاغ عن الأحداث وتطبيق سياسات الحماية.