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EXPLORING THE EFFECT OF MULTIPLE CRISES IN LEBANON ON THE PAID WORK ENVIRONMENT, UNPAID WORK, AND HEALTH OF PRIMARY HEALTH CARE WORKERS: A QUALITATIVE STUDY

by
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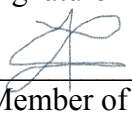
	Signature 
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ABSTRACT
OF THE THESIS OF

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Major: Nursing Administration and Management

Title: Exploring the Effect of Multiple Crises in Lebanon on the Paid Work Environment, Unpaid Work, and Health of Primary Health Care Workers: A Qualitative Study.

Introduction: Lebanon has been encountering numerous challenges since the start of the economic crisis in October 2019. This came along with the COVID-19 pandemic and the infamous Beirut Port Blast in August 2020. As a result, the healthcare sector has been hit at the core and many of the healthcare providers (HCPs) left the profession or the country overall. Additionally, inflation affected deeply the accessibility to and availability of healthcare services all over Lebanon, which resulted in a huge influx of patients in primary healthcare centers (PHCCs). This may have a potential impact on the quality of the services, work environment, and health of HCPs in these centers. Therefore, this study aims to explore the effects of multiple crises on the work environment, unpaid status, and health of HCPs in a purposive sample of Lebanese PHCCs.

Methods: This study employs a qualitative descriptive design, utilizing secondary data analysis through semi-structured interviews. The research team carefully selected PHCCs that serve the entire Lebanese population, are free from political or religious affiliations, and represent diverse geographic regions. A total of seven PHCCs, one from each region, participated in the study. Interviews were conducted with 26 HCPs, including nurses, physicians, and health managers. The team made sure that saturation was reached. The analysis was guided by an adapted framework derived from Quick et al. (1997) conceptual framework, with particular emphasis on Maslach and Leiter's framework for assessing the work environment.

Results: Twelve major themes were identified including food security and the ability to cover basic needs, workload, control, fairness, value, reward, interprofessional relationship, manager's perspective, paid work, community services, mental health, and physical health. Findings revealed that HCPs faced significant challenges in securing basic needs, contended with heavy workloads due to an influx of patients and resource shortages, and struggled to maintain control over patient care. Issues related to fairness and compensation also emerged though positive aspects were found in the form of rewarding work environments and strong interprofessional relationships. Compensation for HCPs was found to be inadequate, with some individuals compelled to engage in unpaid community service. Despite these challenges, HCPs expressed a commitment to their work. However, the quality of care provided was expected to have been compromised. The study also highlighted a considerable negative impact on the mental health of HCPs.

Conclusion: This study offers valuable insights into the perspectives of HCPs regarding the impact of multiple crises on their work environment, unpaid status, and overall health within PHCCs. The challenges faced by HCPs were the inability to secure food and basic needs, a challenging work environment with high pressure to meet the needs of a huge number of patients, low compensation, many community services, and negatively influenced mental health. By highlighting the numerous challenges faced by HCPs, this research provides a compelling impetus for administration and policymakers to recognize and address the pressing issues affecting primary HCPs.

Keywords: Work Environment, Lebanon, Unpaid Work, Health, Challenges, Multiple Crises, Economic Crisis, COVID-19 Pandemic, Healthcare Providers, Qualitative Study

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ABBREVIATIONS

MoPH	Ministry of Public Health
HCP	Health Care Provider
PHCC	Primary Health Care Center
INGO	International Non-Governmental Organization

CHAPTER I

INTRODUCTION

The world is currently grappling with numerous challenges that have created a complex and interconnected web of crises. The COVID-19 pandemic, rising inflation, energy supply shortages, increasing costs of living, and food supply crises are just a few of the issues that have been identified by the World Economic Forum (2023), and according to Davies (2023), one-third of the world will be in recession in 2023. The healthcare system specifically has been encountering a variety of challenges trying to meet the continuously shifting needs of communities around the globe (Yogesh, 2023).

Even before the COVID-19 pandemic, the healthcare system was grappling with several factors related to the working conditions of health care providers (HCPs). Factors such as increased stress levels, heavier workloads, longer working hours, high expectations from patients, and workplace hazards (Mohanty et al., 2019). The COVID-19 pandemic has added to the strain already placed on healthcare facilities, as have rising inflationary pressures in many countries (Fleron et al, 2022). The pandemic has played a significant role in the shortage of HCPs, leading to an unprecedented wave of resignations and employee turnover. COVID-19 exposure, psychological responses to stress, adverse working conditions, and lack of organizational support have contributed to this phenomenon (Poon et al., 2022). The World Health Organization (2022) estimated that the healthcare industry will require an additional 10 million healthcare workers by 2030, particularly in low and lower-middle-income countries, to meet the increasing healthcare demands. This shortage of healthcare workers is a global concern and has far-reaching implications for the delivery of quality healthcare services.

Lebanon, a Middle Eastern country located alongside the Mediterranean Sea, has been facing one of the worst economic crises in recent history since 2019. The country's health system is on the brink of collapse, as stated by Kawa et al. (2022). The economic crisis has been further exacerbated by the COVID-19 pandemic and the devastating Beirut Port Blast in 2020, from which the country has yet to recover. These multiple crises have had a significant and disruptive impact on the healthcare system, particularly on HCPs working in hospitals and primary healthcare centers (PHCCs). The protracted economic crisis that began in 2019 led to shortages of essential drugs, equipment, and medical supplies while simultaneously dealing with the COVID-19 pandemic, which required additional financing and staff to oversee testing, treatment, and vaccination campaigns (Corriero et al., 2022). The tragic Beirut port explosion on August 4, 2020, significantly destroyed hospitals and healthcare facilities and exacerbated the working conditions of HCPs (Mjaess et al., 2021). It has been reported that the work environment of HCPs has been challenged by these regrettable situations, due to increased pressure, stress, longer working hours, and emotional exhaustion (Sanayeh & Chamieh, 2023).

The economic crisis in Lebanon has resulted in a dramatic devaluation of the Lebanese pound, losing 95% of its value since 2019 (AFP, 2023), as of February 2023. The cost of living has skyrocketed, with an increase of around 40-50% (ICN, 2020). Many HCPs have been laid off, and those who remained in the workforce have experienced significant salary reductions of up to 80% or have been forced to take unpaid vacations (Deeb, 2020; ICN, 2020). Moreover, the remaining HCPs have been asked to work longer hours with reduced pay to compensate for the shortage of

healthcare workers (Kawa et al., 2022). These financial challenges have significantly strained HCPs and negatively impacted their motivation and job satisfaction.

The shortage of essential supplies, including medications and personal protective equipment (PPE), has further added to the burden faced by HCPs in Lebanon (*Human Rights Watch*, 2020; Isma'eel et al., 2021). Lebanon heavily relies on imports for medical supplies, with 80% of medications being imported. The economic crisis has resulted in a scarcity of these essential healthcare resources, increasing the workload and stress levels of HCPs already dealing with financial stress and insecurity. The shortage of supplies has also affected the quality of care provided and has strained the work-related interpersonal relationships and the overall work environment of HCPs (Esteban-Sepúlveda et al., 2019).

Additionally, the economic crisis in Lebanon has led to a significant increase in poverty, with a 27% rise from 2019 to 2020 (Islam et al., 2022). The beneficiaries of healthcare services have been highly affected by this situation. PHCCs, in particular, have seen an unprecedented influx of people seeking subsidized medical treatments. This has resulted in a substantial increase in the workload for HCPs in these primary healthcare settings. For example, one PHCC documented that the number of patient visits increased from 42,137 in 2019 to 130,849 in 2021 (*Karagheusian Association*, 2022). Furthermore, individuals with acute medical conditions that require hospitalization have been visiting PHCCs due to their inability to afford hospital services. This increased workload and the severity of cases being handled have added further pressure on HCPs in PHCCs.

The challenges faced by HCPs in Lebanon have had significant repercussions on their physical and mental health. The combination of financial meltdown, a weak

healthcare system, inflation, higher rates of poverty, social unrest, scarcity of resources, and increased workload has intensified their anxieties, leading to burnout (Islam et al., 2022). Unfortunately, many HCPs have chosen to leave the profession altogether (Isma'eel et al., 2021), while others have sought better working conditions in foreign countries (Shallal et al., 2021). The Lebanon Order of Physicians has warned of the collapse of the health sector, reporting that as of June 2022, around 3,000 physicians and 5,000 nurses have already left the country, along with many other HCPs (Lebanon Order of Physicians Warns of Health Sector Collapse, 2022). The exodus of skilled healthcare workers has further strained an already understaffed healthcare system. It is important to note that even before the economic crisis, Lebanon had a low ratio of HCPs to the population. In 2018, there were only 4 HCPs per 1,000 individuals, which was below the recommended minimum of 4.45 HCPs per 1,000 people by the World Health Organization (Shallal et al., 2021). With the ongoing crises, it is expected that this ratio will further decrease, putting the healthcare system at an even higher risk.

The consequences of the multiple stressors faced by HCPs in Lebanon are expected to have a profound impact on the work environment in PHCCs, unpaid status, and the physical and mental health of primary HCPs. A positive work environment has been shown to have significant benefits for HCPs, patients, and overall healthcare. It increases job satisfaction, improves performance (Seo & Lee, 2016), and enhances staff retention (Wan et al., 2018; Al Sabei et al., 2019). Conversely, added stress is likely to exacerbate physical and mental health issues (Llop-Gironés et al., 2021; Nagel et al., 2022), leading to further shortages in staff. It is crucial to explore the effect of the multiple crises on the work environment in PHCCs in Lebanon and the overall health and well-being of primary HCPs. This will motivate PHCCs to take targeted actions to

improve the healthcare workforce by retaining the current HCPs and attracting new ones, and consequently increase the quality of care provided in these settings.

This study aims to explore the effects of the multiple crises on the current work environment in PHC centers and the health of primary HCPs. Additionally, the study provides insight into the status of unpaid work, with a specific focus on nurses working in PHC centers. It is also a space for HCPs to voice the impact of these crises on their livelihood, physical, and mental health.

The specific objectives are:

1. To describe the paid work environment in selected PHCs in Lebanon.
2. To illustrate the self-reported unpaid work and related activities done specifically by PHC nurses to their families and communities.
3. To explore the effect of the crises on food security and the ability to cover basic living needs among PHC workers.
4. To appraise the health status (physical and mental) of PHC health care workers.

CHAPTER II

LITERATURE REVIEW

A. Work Environment in Health Care and Its Importance

Work environment refers to the physical, social, and cultural conditions in which work is performed. It includes factors such as the physical space, equipment, and tools used to perform work, as well as the organizational culture, policies, and practices that shape the work experience (Oludeyi, 2015). Paid work environment refers to any work setting where employees produce goods and services and receive compensation for the work they perform. This is through salaries, wages, benefits, bonuses, and additional compensation methods which can be direct, indirect, and non-monetary (Werf, 2022).

Many studies have tried to identify the factors and elements contributing to a positive work environment in healthcare. At the microsystem level and under normal circumstances, the critical factors that can impact the performance of HCPs include the availability of job aids, goal setting, support from supervisors, workplace incentives, performance feedback, well-defined processes, and various physical, social, and environmental factors (Mj et al., 2017). Maassen et al. in 2021 pointed to 36 elements that are relevant to a positive work environment in healthcare. The main elements are found to be autonomy, career advancement, challenging and fun work, control over the practice setting, employees as valuable partners, and feeling valued in addition to many others (Maassen et al., 2021). Donley (2021) supported the above by mentioning the factors influencing the work environment including acknowledgment, appreciation, support, leader authenticity, and effectiveness.

In a crisis mode similar to Lebanon's situation, the elements of the work environment are rather unique and have yet to be explored. However, Leiter and Maslach's (1999) conceptualization of the work environment can befitting to explore a crisis as they apply to what our HCPs are facing. The six areas of the work environment are:

1. Workload. Many studies have shown a direct correlation between workload, burnout, and emotional exhaustion (Leiter & Maslach, 1999). As we indicated the workload increased exponentially in the past few years.
2. Control. It has been found that lack of sufficient control, and mismatches in work life that arise due to employees' inability to shape the work consistent with their values can influence control of work life that can in turn impact burnout (Leiter & Maslach, 1999). The shortages in medicines, and supplies, and the overall economic meltdown may impact the control of HCPs over their care.
3. Reward. Leiter and Maslach (1999) discussed that the lack of financial, institutional, or social reward in a work environment can increase the level of burnout among employees. The economic meltdown in the country is a major stress for all citizens including HCPs.
4. Community. The presence of social support in work life is shown to be indirectly related to emotional exhaustion and burnout (Leiter & Maslach, 1999). We assume that the interpersonal relationships between HCPs will be strained as a result of all the stressors.
5. Fairness. The employee's perception of their managers that they are fair and supportive can play a role in minimizing burnout, although this component has never been a focus of burnout research (Leiter & Maslach, 1999). The

inadequate compensation in wages, not necessarily caused by managers, can be a source of lack of satisfaction.

6. Value. Value is the connection of the employees with their workplace, and research shows that if this area is distorted, job involvement will be reduced and in return burnout will be increased (Leiter & Maslach, 1999). The fact that those HCPs are defying the odds and remaining on the job may indicate the value they put on their work.

All of the above factors contribute to a positive work environment, which ultimately improves patient safety (Kirwan et al., 2013; Maassen et al., 2021). It can also significantly impact HCPs' job engagement, satisfaction, productivity, performance, and health (both physical and mental), ultimately affecting employee retention. For example, a study conducted by Szilvassy and Sirok (2022) on employees of the Community Health Centre in Slovenia found that job resources, such as good working conditions and opportunities for learning and professional development, play a crucial role in enhancing work engagement, satisfaction, and productivity of HCPs. The study also emphasized the importance of improving leadership, communication, organizational climate, and flexibility to increase staff engagement (Szilvassy and Sirok, 2022). Similarly, to retain nurses, De BTwigg & McCullough (2014b) mentioned that it is essential to have a work environment where there are empowered staff, a collaborative governance structure, opportunities for professional growth, supportive leadership, adequate staffing levels, diverse skills within the healthcare team, and a culture of collegiality.

B. Global Health Care Challenges, COVID-19 Pandemic, Inflation and Work Environment

The healthcare sector is currently facing significant challenges on a global scale due to global factors including the impact of the COVID-19 pandemic, social, economic, and environmental (Filip et al., 2022). The pandemic has impacted healthcare worldwide, creating new challenges and exacerbating the existing ones. Despite many studies on the work environment, its importance, and its effects on healthcare, the work environment in healthcare has not been faring well for years, and it has been further affected negatively in many countries all over the world since 2019. One of the most significant challenges is the strain on healthcare systems and resources. The sudden surge in demand for medical attention has caused shortages of equipment, supplies, and personnel in many countries, making it difficult to have a positive work environment and provide timely and quality care to all patients in hospitals and PHCCs (Bohmer, 2021; Poon et al., 2022b).

1. Workload

Before the COVID-19 pandemic, HCPs were already facing numerous challenges in their work environment. These challenges included issues such as high workload, task allocation, performance satisfaction, and teamwork climate. The study conducted by Elbejjani et al. (2020) on Lebanese nurses showed a high prevalence of health problems among the nurses, which were attributed to these factors related to the work environment. Additionally, HCPs in Portugal were also experiencing exhaustion due to inadequate working conditions and excessive workload, as reported by Garcia & Marziale (2018). The lack of human and physical resources was a common issue that resulted in excessive workloads, workplace violence, and difficulties with teamwork. In

a survey of 6,880 physicians in the United States, Shanafelt et al. (2016) found that 54.4% reported experiencing at least one symptom of burnout, which was associated with factors such as workload, time pressure, and use of electronic health records.

During the early stage of the pandemic and subsequent surges, some HCPs were overworked due to the unprecedented surges of seriously ill patients infected with COVID-19 (Ditcher et al., 2019) in healthcare centers. Furthermore, the pandemic has accelerated the adoption of new guidelines, and protocols related to COVID-19, and most importantly the emergence of digital technologies in healthcare, which has created new challenges amid COVID-19 for HCPs and patients (Ftouni et al., 2022). HCPs had to keep up to date with the progression of the new disease on one hand, while on the other hand, they have to use telemedicine, virtual consultations, and remote monitoring, which have become more prevalent, but many individuals lack the necessary technology or digital literacy to access these services effectively (Ftouni et al., 2022), thus creating a further burden on HCPs.

The healthcare sector has been facing significant challenges post-COVID-19 in the recruitment and retention of HCPs. The COVID-19 pandemic has increased workforce shortages and highlighted the importance of HCPs and the need for an adequate and sustainable workforce. Healthcare staffing shortages have become a significant problem that is expected to persist for some time. As of 2020, the global healthcare workforce consisted of approximately 29.1 million nurses, 12.7 million medical doctors, 3.7 million pharmacists, 2.5 million dentists, and 2.2 million midwives, along with 14.9 million workers in other healthcare-related occupations, totaling 65.1 million health workers (Boniol et al., 2022b). Unfortunately, this workforce was not distributed equally, with high-income countries having 6.5 times

more HCPs than low-income countries. It is projected that the global health workforce will reach 84 million workers by 2030, representing a 29% increase from 2020, which is faster than the population growth rate of 9.7% (Boniol et al., 2022b). However, even with this increase, the existing global health workforce shortage of 15 million HCPs estimated in 2020 is expected to decrease to 10 million by 2030, a decrease of 33% globally (Boniol et al., 2022b). This issue may further increase the workload on the remaining HCPs.

In 2022, a descriptive cross-sectional survey study was conducted in 61 public and private hospitals, as well as 852 PHCCs, to evaluate the impact of various factors on the well-being of nurses during the COVID-19 pandemic. The study included 1,296 nurses and revealed that over a quarter of the participants (26.4%) had been redeployed for either organizational or vulnerability reasons. Moreover, the majority of nurses (61.9%) reported a doubling in the amount of time they spent wearing masks. Finally, the study found that almost 61% of the participants reported a decrease in their well-being because of changes in the work environment, increased use of PPE, and changes in personal life during the pandemic (Jiménez-García et al., 2022).

2. Control

During the COVID-19 pandemic, HCPs often had limited control over their work environment and patient care decisions. The shortage of essential supplies and medicines, along with rapidly changing treatment protocols, reduced their ability to shape their work in line with their values. They had to change their regular care to meet the new and dynamic needs of the COVID-19 pandemic (Filip et al., 2022), and they had to accomplish this with a shortage of medical supplies and equipment (Cohen &

Rodgers, 2020) and uncontrolled risk of getting infected. According to a qualitative study by Fernemark et al. (2022), the COVID-19 pandemic has had significant impacts on the work environment of HCPs, particularly physicians in PHCCs in Sweden. The pandemic resulted in changes in work organization and routines, leading to more flexible care delivery and innovative modes of interaction. However, despite some positive effects, the changes increased the risk of infection, and lack of PPE, resulting in a stressful psychosocial work environment (Fernemark et al., 2022). Jiménez-García et al. (2022) mentioned that in a study 8.3% of nurses were only able to replace their masks once a week, and 11.2% (n = 145) of the nurses had to leave their homes to avoid infecting their families. Moreover, a cross-sectional study on 140 HCPs in 2021 identified insufficient work conditions such as the above in addition to fear of contagion, and social stigma (Motahedi et al., 2021). All these affected the control aspect of their job, resulting in a more stressful and challenging environment.

3. Reward

Additionally, the COVID-19 pandemic has had a significant impact on the global economy, including the healthcare sector. Internationally, hospitals and healthcare facilities have faced catastrophic financial challenges as a result of the pandemic (Kaye et al., 2021). One of the main financial challenges faced by healthcare facilities was the increase in costs related to providing care during the pandemic. Hospitals have had to invest in additional equipment, PPE, and other supplies to keep their staff and patients safe (Kaye et al., 2021). On the contrary, many healthcare centers have experienced a decrease in patient volumes for other health-related conditions due to fear of exposure to the virus, resulting in a decline in revenue (Kaye et

al., 2021). The pandemic has also led to job losses and reduced income for many people, making it more difficult for individuals to pay for healthcare services (Kaye et al., 2021). All these challenges are not resolved yet and still affecting healthcare economically.

The impact of economic inflation on the well-being of HCPs can be significant and multifaceted. Economic downturns can lead to various challenges and adverse conditions for HCPs, affecting their work environment, income, job prospects, work conditions, motivation, and overall quality of care (Jesus et al., 2019). These effects can be further exacerbated by government policies implemented in response to crises and the subsequent consequences they bring (Jesus et al., 2019). One primary consequence of an economic crisis is reduced income and labor opportunities for HCPs (Jesus et al., 2019). During recessions, healthcare budgets may be constrained, leading to cutbacks in healthcare funding and resources. This can result in reduced salaries, delayed promotions, or even layoffs for HCPs. The decrease in income can cause financial stress and strain, affecting the well-being and job satisfaction of HCPs. In addition to financial implications, economic crises can contribute to poor work conditions for HCPs. Governments facing economic challenges may implement policies that directly or indirectly impact the healthcare sector. These policies can include budget cuts, hiring freezes, or reductions in healthcare services. As a result, HCPs may face increased workloads, inadequate staffing levels, longer working hours, and limited access to necessary equipment and resources (Jesus et al., 2019). These adverse conditions can affect the reward construct of the work environment and can lead to physical and emotional exhaustion, burnout, and decreased job satisfaction among HCPs.

On the other hand, the reward construct has been distorted due to mismanagement and moral rewards. A study by Koinis et al. (2015) on HCPs found that a lack of strategies to manage workplace stress was a significant concern for employees, indicating a lack of concern by management for their emotional well-being. However, offering moral rewards and continuous education opportunities was effective in reducing workplace stress. On the other hand, a study by Han et al. (2019) demonstrated the financial impact of burnout on hospitals in the United States. The study estimated that on average, the annual economic cost associated with physician burnout is approximately $7,600 per employed physician due to physicians' turnover or reduced clinical working hours.

4. Community

COVID-19 has strained the interpersonal relationships among HCPs due to the high-stress environment, concerns about infection, and long working hours. Inflation can indirectly affect the community aspect by creating financial stress and job insecurity (Kim et al., 2022), which may further strain relationships among colleagues. A rapid systematic review done by De Brier et al. (2020) showed other factors that affected the work environment of HCPs such as unclear communication and inadequate support from the organization, in addition to a lack of social support and a personal sense of control. Overall, the work environment of HCPs before COVID-19 was already challenging and required significant attention to address these issues. However, the pandemic has further intensified these challenges and added additional pressures on HCPs.

5. Fairness

Some HCPs had high workloads, while others who weren't involved in the COVID-19 response were either furloughed or had their working hours reduced (ASPE, 2022). This was due to the temporary closure of facilities or the limitation of elective procedures as people avoided going to healthcare centers (ASPE, 2022). To minimize revenue loss, many hospitals and health systems had to suspend certain types of care and procedures, which led to furloughs of workers. Primary care physicians also reported financial stress during the pandemic, resulting in insufficient staffing and even closures of practices, potentially affecting access to primary care and vaccination efforts (ASPE, 2022). Besides the unfair distribution of work, HCPs' perceptions of fairness in terms of compensation, access to PPE, and support from management became crucial during the pandemic. Inflation can exacerbate feelings of unfairness if wages do not keep pace with rising living costs and if healthcare organizations fail to address these concerns adequately.

6. Value

Despite the challenges, many HCPs continued to work during the pandemic, emphasizing the value they place on their profession and the importance of their work (Shmerling, 2020). However, prolonged stress, high workload, and inadequate resources can eventually diminish this sense of value, contributing to burnout.

The COVID-19 pandemic changed the work environment and put extreme stress on the HCPs, leading to workforce shortages as well as increased healthcare worker burnout, exhaustion, and trauma (ASPE, 2022). De Brier et al. (2020) showed that the level of COVID-19 disease exposure and health fear were significantly associated with

worse mental health outcomes. A study done by Blanchard et al. (2022) across the United States, found that 23% of 701 HCPs screened for depression/anxiety, and 39.7% for burnout. Nurses were more depressed and burned out than attendings, and a strong association between a perceived adverse work environment and poor mental health, particularly when organizational support was deemed inadequate (Blanchard et al., 2022). Motahedi et al. (2021) found that the prevalence of anxiety during the pandemic was 23%, compared to 22.7% in a systematic review done in 2020 (Pappa et al., 2020) because of the work conditions. The study also found that 57.9% of participants experienced some degree of depression (Motahedi et al., 2021), compared to 22.8% of HCWs in the 2020 systematic review (Pappa et al., 2020). Physicians experienced information overload, leading to fatigue, stress, and impaired decision-making, as well as ethical concerns and feelings of uncertainty (Fernemark et al., 2022).

In addition to the mental health deteriorations experienced by HCPs, their work conditions can also result in physical problems. As reported by Elbejjani et al. (2020), the most prevalent physical outcome was musculoskeletal disease. This can be attributed to the increased workload, longer working hours, and inadequate ergonomics and workplace design, which can cause strain on the muscles and joints of HCPs. Burnout was also associated with decreased career satisfaction and an increased likelihood of leaving the practice (Patel et al., 2018). It can also negatively affect the professionals' quality of life and increase their intention to leave their jobs (Fernemark et al., 2022). Overall, the COVID-19 pandemic has caused significant changes and challenges in the work environment of HCPs, exacerbating pre-existing issues and introducing new ones, which affected the HCPs.

Furthermore, inflation can also have an impact on the motivation and morale of HCPs. Facing financial uncertainty and reduced career prospects, HCPs may experience decreased motivation to perform at their best or to stay within the healthcare sector. The prospect of better opportunities or higher incomes in other industries or countries may lead to increased migration intentions among HCPs, further exacerbating workforce shortages and affecting the quality of care in the healthcare system. Unwanted organizational changes, such as restructuring or downsizing, can also occur during economic crises. These changes can disrupt HCPs' established routines and job roles, leading to increased stress and job dissatisfaction (Jesus et al., 2019). The uncertainty and instability associated with organizational changes can further contribute to decreased well-being and job satisfaction among HCPs.

7. Effects

Poor working conditions resulting from an economic downfall and the COVID-19 pandemic can have detrimental effects on employees' mental health, leading to an increased risk of presenteeism, sick leaves, decreased performance, medical errors, and intentions to lay off, resulting in potential economic harm (Worringer et al., 2020). A study conducted by Yusefzadeh and Nabilou (2020) in Iran revealed that the work environment, specifically the quality of infrastructure, layout, and technical equipment, can impact HCPs' productivity and performance. Poor working conditions can have numerous negative impacts on employees, such as discomfort, health problems, absenteeism, burnout, and reduced productivity (Yusefzadeh & Nabilou, 2020). Also, an unhealthy work environment in healthcare can result in occupational diseases, including heat stress, hearing loss, ergonomic disorders, and suffocation, due to factors

such as inadequate furniture, poorly designed workstations, poor ventilation, excessive noise, inappropriate lighting, lack of supervisor support, inadequate workspace, poor communication, inadequate fire safety measures, and a lack of PPE (Mj et al., 2017). These factors can also lead to decreased morale, motivation, job satisfaction, and ultimately, employee performance. Another study conducted by Wali et al. (2023b) in Saudi Arabia found that nurses working in PHCCs experienced chronic fatigue, decreased physical performance, and ineffective communication due to sources of pressure such as understaffing and excessive workload, leading to burnout, reduced job satisfaction, and employee turnover.

C. Unpaid Work

Unpaid work refers to voluntary work, where goods and services are produced without direct remuneration or form of payment (Libretexts, 2020). The unpaid work could be part of the formal work yet not fairly compensated or informal work as volunteering to serve the community. Regarding HCPs, unpaid work refers to the time and effort they spend in providing medical care and services to family, friends, and the community, either formal or informal, without receiving any financial compensation for their services(Ferrant et al., 2014). Unpaid work has a significant effect on employees. A review of the literature found that even a one-hour increase in unpaid work per week can noticeably impact mental health (Drake, 2022). Studies reported that for every 10-hour increase in unpaid labor time, there was a corresponding 0.2 to 0.4-point increase in depression scores (Drake, 2022). Importantly, Drake (2022) pointed to gender inequality in unpaid work, where women get more unpaid work regardless of

geographical location and time setting, thus they are associated with reduced mental health (Drake, 2022).

Additionally, a study done on 11,516 registered nurses showed that adverse events and errors (such as medication errors and needlestick injuries) were directly associated with unpaid work (Olds & Clake, 2010).

D. Manager's perspective

With all these challenges, managers have been pressured to balance between higher administration and HCPs' needs and have been facing an overwhelming workload, which was not adequately supported by available resources (Figueroa et al., 2019). To this date, the capacities needed by health managers and leaders to respond to current and emerging issues are not yet well understood (Figueroa et al., 2019), with this challenge and the global health challenges, it is overwhelming for managers to meet the dynamic needs of health care effectively and efficiently. A qualitative study done by Worringer et al. (2020) in German hospitals showed that managers think that the mental stress of employees is because of work characteristics related to work organization, work tasks, and social factors in addition to staff shortage. The findings indicated that managers strive to reduce the burden on their staff, especially through their support, however, they need additional resources to counteract stressors (Worringer et al., 2020). Moreover, the workload of nurse managers is causing significant stress that is negatively impacting their psychological and physical well-being and hindering their ability to provide effective leadership that is visible and proactive (Jäppinen et al., 2021). Studies have shown that almost one in five nurse managers experience high levels of stress from their workload, which is associated with increased job stress,

higher intent to leave the organization, lower job satisfaction, and a negative perception of the practice environment (Jäppinen et al., 2021).

E. Lebanese PHCCs

In Lebanon, the healthcare system is primarily dominated by the private sector, with a strong emphasis on hospital-based curative care. Unfortunately, this focus on curative care has resulted in a neglect of primary and preventive healthcare measures, which received limited attention and funding. Hospital-based curative care accounts for a significant 48% of the total public health expenditure in the country (Tyler, 2015).

The government of Lebanon has allocated a meager 5.8% of its total spending toward healthcare, indicating a lack of priority given to this crucial sector. Moreover, the Ministry of Public Health (MoPH) has experienced a decrease in funding from the government budget over the years. Allocations for the MoPH dropped from 5.9% in 2005 to a mere 3.4% in 2012. This insufficient funding posed significant challenges to the improvement of primary and preventive healthcare services in Lebanon (Hemadeh et al., 2020).

Currently, there are 294 PHCCs distributed across all governorates in Lebanon. These centers are managed by the MoPH, specifically the PHC Department. While originally supported by the MoPH, some of these centers have started receiving support from international non-governmental organizations (INGOs) such as the European Union, the World Health Organization (WHO), and other United Nations agencies. However, this support is contingent upon meeting certain requirements and providing quality care. Additionally, some PHCCs are affiliated solely with NGOs and municipalities (Sader, 2021).

It is worth noting that 78% of these PHCCs deliver all the services required by national standards, and 89% have all the necessary equipment for care delivery to the Lebanese population and refugees living in Lebanon (Hemadeh et al., 2020). Medications for these centers are provided by the MoPH in collaboration with the Youth Men Christian Association (YMCA). Subsidized centers offer services and programs almost free of charge to patients of different nationalities, particularly those who are unable to afford medical treatments at market prices (Sader, 2021).

Despite the ongoing improvements and increased support from INGOs, the healthcare sector in Lebanon has been severely impacted by multiple crises. The economic crisis, with the COVID-19 pandemic and the August 4 blast, has taken a toll on the overall healthcare system. The depreciation of the Lebanese pound, which has led to lower compensation for HCPs in Lebanon, has been one of the major problems they faced. This has caused some of them to quit their jobs in search of more secure employment options, which has made the already acute lack of trained workers worse *(International Monetary Fund,* 2023). Additionally, there has been a severe lack of crucial medical supplies in the nation, which has had a negative impact on HCPs' ability to give high-quality care. Healthcare facilities struggled to meet the rising demand for medical care due to a lack of resources (Sanayeh & Chamieh, 2023).

Moreover, a significant increase in the number of individuals seeking treatment as a result of Lebanon's medicine shortage and the inability to afford care in hospitals has been encountered after multiple crises. It is difficult for HCPs to deliver adequate care to all people in need since they have no control over the supply of essential medications, which has added stress to an already overburdened healthcare system. Important to note that Lebanon has been hosting many Syrian refugees, and they have

encountered various obstacles in accessing formal healthcare services due to their vulnerable status. However, they have access to over 200 PHCCs in Lebanon, and they account for 47% of the patients receiving care in PHCCs with very nominal fees (Ali et al., 2022). The establishment of PHCCs has been instrumental in providing affordable healthcare, but the overwhelming number of Syrian refugees and the Lebanese population seeking care through these centers has been adding a burden on PHCCs, which were not prepared in terms of employees, or terms of resources.

The unexpected inflow of patients for which the healthcare system was not fully prepared, added to the rising pressure due to the pandemic, a deadly explosion, and the collapse of the economy caught the healthcare system off guard, leaving it without the staff or resources necessary to handle the rapid increase in patients. Many HCPs have left the country in search of better prospects abroad as a result of these serious difficulties. This worsened the manpower shortfall and made it more difficult for the health sector to provide appropriate care for the patients.

CHAPTER III

METHODOLOGY

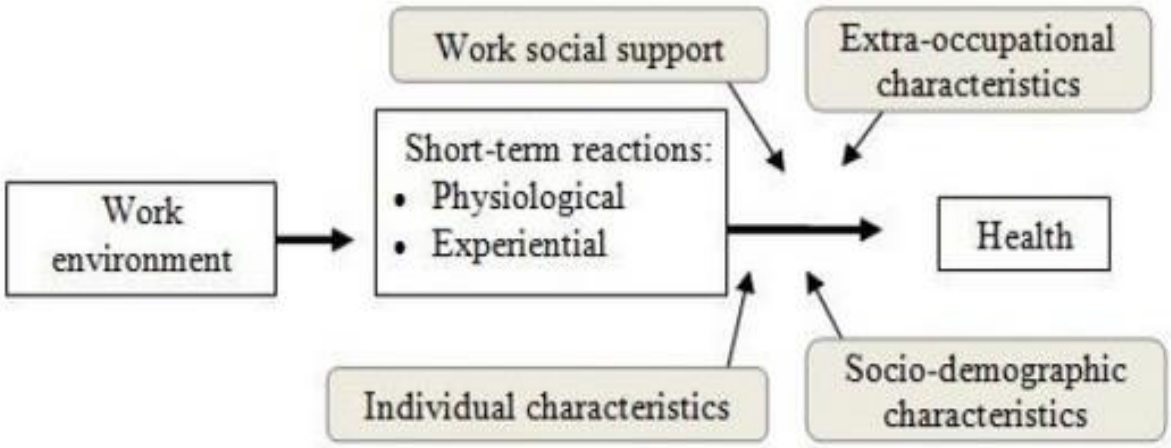
This study used a secondary data analysis of a qualitative descriptive design based on a semi-structured interview approach. The data was collected as part of a larger project assessing the community healthcare needs while simultaneously exploring the effect of the multiple crises on HCPs working in PHCCs.

A. Conceptual Framework

This study was guided by the conceptual framework by Quick, et al., (1997) named the Preventive Stress Management model (*Figure 1)*. This framework attempts to examine the physical and mental health of HCPs, and how they are moderated by variables involving the individual and his/her environment (Althaus et al., 2013). The three categories of the moderator variable (individual characteristics, social support at and outside work) moderate the impact of short-term reactions on health, but not the impact of the environment on these reactions (Althaus et al., 2013). The variables are:

1. Short-term reactions: physiologic (heart rate, blood pressure, etc.) and experiential (or phenomenological: affects, hope, etc.).
2. Individual characteristics.
3. Sociodemographic characteristics.
4. Extra-occupational characteristics.
5. Work Social Support.

Figure 1. Preventive Stress Management Model adapted from Quick et al., 1997

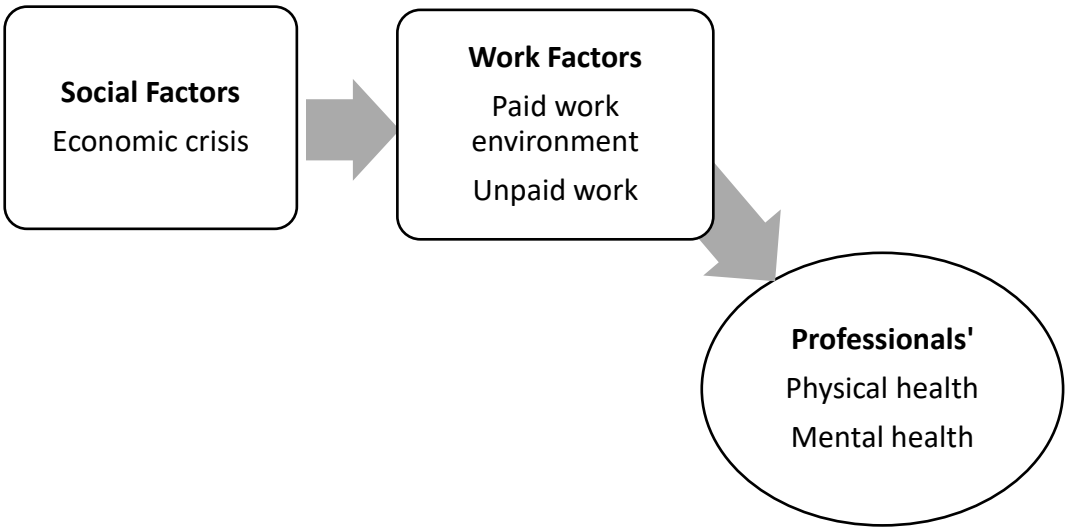


This conceptual framework has been mostly used to test the association between these variables and the health outcomes quantitatively (Althaus et al., 2013). Inspired by the latter, in this study, we are adopting to explore qualitatively the association between its constructs and we adapted the model by Quick, et al. (1997) to our setting (*Figure 2*).

1. Social factors including economic hardships borne by the HCPs. The social factors include the economic crisis in Lebanon and its impact on the livelihood of both providers and beneficiaries and the availability of supplies and medicines as examples.
2. The economic crisis is expected to impact work factors (Jesus et al., 2019), including paid work environment and unpaid work. Paid work environments are the conditions under which the HCPs are working with compensation (Werf, 2022).
3. The unpaid work is the care and services that HCPs perform in their workplace, and communities without compensation (Libretexts, 2020).

4. All these influenced primary HCPs' physical and mental health.

Figure 2. Conceptual Framework



B. Ethical Considerations

Ethical approval for the study was secured from the Institutional Review Board (IRB) at the American University of Beirut (AUB). The research team also got the authorization to approach and visit the PHCCs from the Primary Health Care Department at the Ministry of Public Health before the interviews were held. In addition, a letter to the IRB (SBS-2022-0164) was sent with an amendment for the partial use of the available data for the thesis.

C. Research site identification and recruitment

The MOPH-PHCC list was obtained from the PHC Department website. The research team specifically chose PHCCs that served the entire Lebanese population, were unaffiliated with any political or religious organization, and represented the many

geographic regions of Lebanon. They created a list of potential PHCCs in each location that met the requirements.

They contacted and introduced the project to the managers of each PHCC. They were also made aware of their plans to incent participants. Eight centers were contacted, and those who accepted the invitation were included in the study. Seven facilities, one from each of Lebanon's regions, were accepted to participate.

They then sent the managers an invitation (Appendix 1: Invitation letter/email) to be shared with the potential participants including doctors, nurses, and other medical personnel at the designated PHCCs.

Following that, they contacted the potential participants to arrange the time and day for the in-depth interviews at the PHCC. Every interview in every PHCC was planned on the same day to maximize efficiency.

D. Data Collection instrument

The team employed a semi-structured approach to collect data from each population category (Appendix 3: Interview Guide-Health managers, Appendix 4: Interview Guide-Health care providers). The data instrument addressed the main objectives of the study.

E. Data collection process

Data was collected between July 1 and August 31, 2022. At the start of each interview on the day of each PHCC visit, two data collectors were designated to conduct the interview. They went over the consent form (Appendix 2) with each participant to explain the study's goals, their right to withdraw at any time, and the

precautions they take to protect their privacy and confidentiality. They were then asked to sign the consent form and provide permission to record the conversation. They considered the fact that participants were given enough time to think about giving their consent and taking part in the study.

Beyond the risks of ordinary living, the participants in this study were not subjected to any additional bodily or psychological harm. If they chose not to respond to a question during the interview, they could say "skip" or choose not to answer the question.

Individual interviews were conducted at the assigned PHCC in a private room. As indicated, there was a maximum of two interviewers per session. The questions were prompted by the interview guide, however, interviewers were prepared to depart from the set questions to follow the lead of the participants. Probing was used oftentimes to get in-depth information about the topic of interest. All participants consented to be audio-taped, hence they were all recorded and no notes were taken.

The interviewer always made sure to thank the interviewee and ask the final question if they had anything to add. They received the reward, and they made sure it was seen and recorded for accountability and transparency.

F. Data Management

The list of participating PHCCs was saved into the Co-I's computer. Each center was provided a serial number ranging from 01 to 07, e.g. PHCC 01. Each participant within each PHCC was provided a de-identified label. For a health manager, the label was HM followed by the PHCC number (e.g. HM01), while for the health managers who are physicians or midwives at the same time, the label was HMPH or

HMMW followed by the PHCC number. The physicians were labeled as PH (e.g. PH01), nurses NU (e.g. NU01), and if there were two nurses from the same center the serial number of the center was followed by a number (e.g. NU01-01), and others were OT, (e.g. OT01).

Each recording was saved under its corresponding identifier and saved on the Co-Is' computers. The latter transcribed and translated the audio recordings and saved them into their computers using a double password-protected option.

G. Data Analysis

The data analysis process utilized the thematic framework analytical technique, which involved several stages to systematically examine and interpret the qualitative data of this study. The analysis focused on constructs of our conceptual framework, such as the social factors, work factors, and demographic factors on the health-related outcomes of HCPs, while the paid work environment based on Maslach and Leiter's framework, which included workload, control, fairness, reward, value, and interprofessional relationships.

The following is a detailed description of the data analysis methodology by Gale et al. (2013).

1. **Familiarization**: Meghety Gudeshian (MG) and Dr. Gladys Honein-AbouHadiar (GHA) began the data analysis process by immersing themselves in the collected transcripts. They read through a few transcripts and took notes and memos to familiarize themselves with the content and gain an initial understanding of the data.

2. **Initial Coding**: MG and GHA independently conducted preliminary coding of two manuscripts. During this stage, they started identifying and labeling specific sections of the data that related to the constructs of the conceptual framework (social factors, work factors, demographic factors, and health-related impact).
3. **Coding Framework Development**: At a meeting, GHA and MG collaboratively discussed their initial coding and developed a comprehensive coding framework. This framework included predefined categories based on the name conceptual framework and the additional aspects of the paid work environment (workload, control, fairness, reward, value, and interprofessional relationships).
4. **Data Classification**: MG continued the data analysis process by systematically applying the coding framework to the remaining data sources. During this phase, new categories were added to the analytical framework as needed, allowing for flexibility in capturing emerging themes.
5. **Review and Validation**: GHA reviewed the independently coded and classified data to ensure consistency and accuracy in the application of the coding framework. Any discrepancies or disagreements in coding were resolved through discussion and consensus.
6. **Theme Identification**: After the data was fully classified, GHA and MG met to identify and finalize themes and sub-themes that emerged from the data. They explored connections between these themes and sub-themes, ensuring alignment with the constructs of the conceptual framework and the aspects of the paid work environment.

7. **Data Integration**: The themes and sub-themes were integrated into a coherent narrative that represented the participants' experiences and perspectives related to the impact of social, work, and demographic factors on their health outcomes as HCPs.
8. **Comparison with Conceptual Framework:** During the final stage, the identified themes and sub-themes were compared and contrasted with the constructs of the conceptual framework and Maslach and Leiter's nursing paid work environment model to provide a comprehensive understanding of the data.
9. **Report Writing:** The findings of the data analysis were documented in a written report, presenting the themes, sub-themes, and their connections, along with the supporting evidence from the data. The report provided valuable insights into the relationships between social, work, and demographic factors and their impact on the health-related outcomes of HCPs in PHCCs, taking into account the elements of an optimal HCPs' paid work environment.

H. Measures to increase rigor

We maintained the credibility, reflexivity, and confirmability of our approach throughout the study. Credibility was ensured by utilizing transcribed audio-recorded interviews as our primary data source, and we implemented maximum variation sampling, encompassing participants from diverse backgrounds to elucidate disparities between low and high-resource areas. In terms of reflexivity, the interviewer had no prior connections with participants, and we engaged two analysts in the analysis process

to mitigate potential bias in result interpretation. Confirmability was upheld through the application of a semi-structured interview methodology, enhancing uniformity across all interviews.

CHAPTER IV

RESULTS

A. Characteristics of Participants

A total of 26 interviews were conducted with HCPs, consisting of 7 health managers and 19 health providers, in 7 different PHCCs in different locations in Lebanon. Among the health managers, one was a physician, while another was a midwife. The HCPs included 7 physicians (including one of the health managers), 12 nurses, and 1 nurse aide who was responsible for managing the pharmacy. In terms of gender distribution, there were 16 female participants and 10 male participants in the study.

B. Characteristics of PHCCs

Six out of the seven centers included in the research received support or subsidization from INGOs authorized by the MoPH. Each center was eligible to receive service from one INGO while being affiliated with MoPH. "*According to the law decreed by the MoPH, every PHC has the right to partner with only one NGO. And according to the law enforced by the international NGO that we are partnering with [..], we cannot have another partner.*" Source: *PH03.*

These INGOs helped PHCCs provide various subsidized specialty services to beneficiaries. The services provided varied from one center to the other. Most of the centers had general physicians, pediatricians, cardiologists, and endocrinologists, while the availability of other specialties was based on the center and the support from INGOs. "*We have here general medicine, pediatrics, cardio-vascular, endocrinology-*

diabetes, women's health, a dietitian, and vaccination which is an essential service in the center". Source: *NU07-02*

In a few centers, home care was also provided with the support of INGO. *"The project where we went to the homes of patients was nice and helped a lot of people. In the last project with [..] we had home visits for beneficiaries who were unable to come to the centers".* Source: *HMPH07*

INGOs also established contractual agreements with the PHCC to ensure the provision of the above services. The support provided encompassed financial assistance for physician consultations, diagnostic tests, and some essential medications. Furthermore, funding for these services sometimes was sourced from generous donations made by philanthropic individuals within the Lebanese diaspora and the broader community. These INGOs also played a significant role in determining the eligibility criteria for individuals who could benefit from the services provided. "*With […], if I get a patient; diabetic, diabetic and hypertension, or hypertension, he has the right for whom I can request the related lab test package. I request it for him. We take part in working on Primary Health Care Network Information & Communication System (PHCNICS). We send the request and wait for approval… Then, the beneficiary can take this approval to the public hospital where he does not have to pay anything for the tests. Of course, all this is done within certain criteria; age, diseases*…". Source: *HMPH07.*

On the other hand, the main supply of medication to all the centers (whether subsidized or non-subsidized) was from MoPH and YMCA. To effectively procure, manage, and monitor the usage of medications for chronic diseases, the MoPH collaborated with a local NGO (YMCA). "*We receive non-communicable diseases*

(NCD) meds from the MoPH-YMCA, and non-NCD meds received from MoPH." Source: *NU05-01*.

Moreover, before the multiple crises in Lebanon, the patients took their medication after the paperwork was completed within three months, per the YMCA process. Lately, the process has undergone a change, where the patients immediately take their medications after they consult a physician. *"Currently, they said if the patient was seen by the physician, give him medications, and then send through the request."* Source: *HM03*

Also, each patient was eligible to receive medication only from one PHCC. *"You cannot give any medications to the same patient, you must send the file to the MOPH to check where the patient's file is. If a patient wants to open a file here, he/she must bring a paper that proves that he/she stopped being a member at the other PHC."* Source: *HM01*

C. Process of Care

Based on the interviews conducted with health managers and providers at the PHCCs, we were able to outline the care process provided to the beneficiaries. This process differs depending on whether there is an affiliation with an INGO that subsidizes services, supplies, diagnostic tests, and/or medications at the designated PHCC. Below, we present two sets of processes: one for situations where there is no subsidy agreement, and another for situations where a subsidy agreement is in place.

1. Presence of Subsidy Agreement

a. Upon arrival at the center, the patient's family history is checked to see if any family members have previously visited the center and share the same family file number.

"The patient arrives for the first time at the center, first we welcome him to the PHCC, and we ask him if someone in his family has already received services from the center, as they would have a family file number..". Source: *NU02-01*

b. Then the patient either undergoes registration at the PHCC and receives a unique number on PHCNICS, an information system developed by the MoPH for tracking and managing PHCCs in Lebanon, or his file is retrieved directly from the system.

"If the patient comes to the center already, we retrieve his/her file. If the patient is a newcomer, we create for him/her a new file. PHCNICS is the software that we use, and each patient has a number. We have a double chart: one on the PHCNICS, and one paper-based for each patient". Source: *PH03*

c. Accompanied by a nurse, the patient enters the triage room where their health history and chief complaint are recorded on a paper-based chart. The nurse or administrator later enters this information into PHCNICS.

"*…and take his measurements of blood pressure, weight, temperature, and height. We take his information; if he has an allergy to certain medications, health problems, hypertension, diabetes, past surgeries, and other details. Then he goes to the physician he is at the center to see.".* Source: *NU07-01*

d. The staff clarifies the process of the services provided in the center to the patient.

"We have a procedure, for example, an NCD patient that comes for a consultation with the specialist or the general practitioner, we directly clarify the project that we have.". Source: *NU07-02*

e. The patient then consults with a family medicine physician or a specialist at the designated PHCC, based on their health needs and physician availability. The patient once registered in the center is eligible to receive any type of services.

"*Takes a general physician (GP) visit, unless the patient already knows his diagnosis and goes to a specialist. If the patient comes for a checkup or needs to know what is the matter, a general physician is consulted. Then, the GP refers the patient to an indicated specialist".* Source: *HM02*

"*Once registered at the center receives several services at the same time*." Source: *NU02-01*

f. A consultation fee of 3,000 LBP is charged, granting the patient access to prescribed medications from the PHCC pharmacy at a nominal fee.

"Before the […] project, the patient fee was 25,000 LL and we did not charge for meds. We do not cover tests. Testing is done at the hospital. Even before it was 15,000LL. Only lately they had raised it to 25,000LL. Yes, after the […] project started and put a fee of 3,000LL.". Source: *OT07*

g. If the physician prescribes any laboratory tests or imaging, approval must be obtained from the INGO. This approval process can vary in duration, and if it cannot be secured, the patient may be referred to other low-cost facilities for tests or imaging. However, if there is a highly urgent case, the staff can directly contact the INGO physician, who is responsible for the approvals, seeking an immediate response.

"We take part in working on PHENICS. We send the request and wait for the approval. We tell the beneficiaries to wait a few days and then they would come and take the approval for the test.". Source: *HMPH07*

"Physician requests tests, wait for approval, not always given on the same day, may take a couple of days". Source: *NU02-01*

"Patients may be irritated if they do not get the laboratory tests service, but they let him know they can go to the other center." Source: *NU02-01*

"*If someone comes in with a suspension of having Cholecystitis. This is an urgent patient. I do not let the patient wait for the approval on PHENICS. I call directly the responsible […] physician to get phone approval with which I allow the patient to get the urgent echo."* Source: *HMMW04*

h. Some PHCCs have contracts for laboratory tests and offer blood withdrawal services or provide vouchers for beneficiaries to undergo tests at laboratories, while some have their own laboratories where patients once get their approval can do the blood test.

"The[…] physician, who is in charge, must approve this test. Then once I receive the test approval, I call the patient to come and get the test done. When the patient comes for this second time he does not pay anything. The blood is withdrawn for free. Within 3-4 days the results the patient comes and receives the results, which the physician has to check out. Double check as the physician has ordered the blood test done. We do not provide the results unless our physician has checked out the results.". Source: *HMMW04*

i. Once the lab test is done and the results are out, the patient comes back again to show them to the physician.

"*He comes and takes the approval for the tests, goes to the hospital, and then the next week comes and shows them to the physician.".* Source: *NU07-01.*

j. In cases where the patient cannot afford the consultation fee, the PHCC administration may exempt them from payment.

"Yes, there are some patients who are unable to pay the fees, yes honestly. You cannot tell him it is mandatory for you to pay. He would say my situation does not allow me to pay the 3,000LL. And they are only 3,000LL. The center covers the fee". Source: *NU07-01.*

k. The physician advises the patient to schedule a follow-up visit based on their health status, usually within 6 or 12 months, depending on the terms of the international organization. The patient can visit the PHCC monthly to receive their chronic medications or suitable substitutes free of charge, if available.

"There is a monthly routine, where the patient gets medications, follows up with the physician, and gets a checkup to see if medications need to be modified. Tests are not done every month. Also, every time the beneficiary comes pays 3000LL." Source: *NU02-02.*

2. Absence of subsidy agreement in one center

a. Upon arrival at the center, the patient's family history is checked to see if any family members have previously visited the center and share the same family file number.

b. Then, the patient undergoes registration at the PHCC, where they are assigned a number on the PHϹNICS.

c. Accompanied by a nurse, the patient enters the triage room, where their health history and primary complaint are documented on a paper-based chart. This information is later entered into PHϹNICS by the nurse or administrator.

d. The patient then consults with a family medicine physician or a specialist, depending on their health needs/diagnosis and the availability of physicians at the designated PHCC. Once registered at the center, the patient is eligible to see any specialty and receive any service at the same time.

e. The patient pays a consultation fee ranging from 10,000 LBP to 25,000 LBP, allowing them to obtain prescribed medications from the PHCC pharmacy at a nominal fee.

"The consultation and the medication cost 10,000 LBP". Source: NU01

f. If the PHCC has a laboratory and the physician orders, the patient can obtain their prescribed laboratory tests at a reduced cost.

g. In cases where the patient is unable to afford the consultation fee or laboratory tests, the PHCC administration may consider their situation and either exempt them from payment (if they have sufficient resources) or refer them to a low-cost facility.

"*Sometimes people are unable to pay such a small amount, so I let them leave without paying."* Source: *NU01*

h. The physician advises the patient to return for a follow-up appointment based on their health condition. Monthly visits are scheduled for the patient to collect their chronic medications or suitable substitutes, free of charge if available.

Note: *At the time of the interviews, the USD per Lebanese lira exchange was 24,000LL/USD.*

D. Emerging Themes and Subthemes

The results followed the conceptual framework mentioned above and thus are presented first by discussing how the multiple crises affected the social factors, then the work environment of HCPs, then the financial status and the livelihood, followed by the health of HCPs in PHCCs.

We were able to identify 12 major themes from the analysis of in-depth interviews held with health managers and HCPs: food security and the ability to cover basic needs, workload, control, fairness, value, reward, interprofessional relationship, manager's perspective, paid work, community service, physical and mental. Table 1 summarizes the major themes and subthemes.

Table 1. Main Themes and Subthemes

Concepts	Main Theme	Subthemes
Social Factors	Food Security and the Ability to Cover Basic Needs	
Work environment	Workload	a. Influx of patients b. High demand for medications c. Health is a right for all, no one should be turned back d. Shortage in human resources and absenteeism due to the economic crises e. Non-clinical requirements from MOPH and INGO
	Control	a. Shortage of medications and availability of medical supplies b. Range of services offered at the PHCCs
	Fairness	a. Workload distribution b. Compensation c. Contract challenges
	Value	a. Value the work they do without discrimination. b. Feeling what they do is not enough
	Reward	a. Rewarding work b. Unrewarding and being humiliated
	Interprofessional Relationship	a. Model of interprofessional collaboration b. Challenges to interprofessional collaboration

	Manager's perspective	a. Coping b. Negotiation challenges c. Fiscal sustainability challenges of the PHCCs d. Doing their best
Unpaid and Paid Status in work environment and the community	In the Workplace	a. Lack of compensation for the paid work b. Transportation challenges.
	In the Community	a. Going extra mile b. Not willing to do extra
Health	Mental	a. Mental pressure
	Physical	a. Fatigue

Below is an elaboration on each of the identified themes and subthemes to explore the effect of multiple crises on HCPs in PHCCs.

1. Social Factors

a. Food Security and the Ability to Cover Basic Needs

Most HCPs who were interviewed were encountering challenges in securing food and covering all their basic needs. Salaries, the cost of living, and even the basic needs became beyond reach. A nurse mentioned, "*Salary lasts a maximum of 5 days*." (NU05-02), while another nurse elaborated more on the challenges of securing basic needs "…*You go to the store, get a bit of Labneh, yogurt, a few things, and you still didn't get anything to cook. Also, the prices are not fixed, every day the price changes. I do have a car, but I find it costly to drive it to work. If I have to fix it, it costs a minimum of $100-$150. No, so sometimes my husband brings me in the morning and my daughter takes me after work. Before we did not account for the transportation. It was ok, we were living. Now we have to think about it. You are in a situation you cannot think about yourself. I still have a son, entering his first year of university. Finished last year*

of school… Even in food, I try to cut back. I have other priorities, like education… Now we have to think, he needs 300,000LL for transportation to get to his university… This economic situation is stressing." (NU06-01).

Physicians were also struggling. The consultation fees lost their value, "*With what I earn, I barely can live for one month. I am a family physician, I used to go to several PHCs, but now how can I work for free."* (PH01).

2. Work Environment

The work environment in PHCCs was transformed as a result of the crisis.

a. Workload:

The workload increased exponentially. The HCPs described the situation as relentless activity, an overwhelming level of pressure, and working late to keep up with the tasks.

"*The work is non-stop… You cannot imagine the work pressure… We are seeing patients but under pressure… All done under pressure.*" (NU05-02).

There were several contributing factors leading to this workload increase.

i. Influx of Patients

Perhaps the main contributing factor is the unprecedented influx of patients due to the crises

"*First before the crisis, we had a low number of beneficiaries, but after the crisis, the load became very high."* (NU06-01).

The subsidized fees motivated more beneficiaries to benefit from the symbolic prices, the range of services offered, and as an alternative to hospital visits.

"*Nowadays, with this crisis, more people are coming to the PHC because the least hospital visit has a huge cost. People are now considering PHCs to save the money they must eat, and even to save on fuel*." (NU01).

As a result, the staff sometimes worked long hours to catch up with the requirements.

"*The appointments are full. Sometimes we stay a lot after business hours to finish up with the patients"(HMMW04).*

It is also noteworthy to indicate that the composition of beneficiaries also changed. Before the crises, the beneficiaries were mainly poor Lebanese and a large proportion of Syrian refugees. Nowadays, more Lebanese, middle-class specifically, are seeking services in PHCCs. They often come with higher expectations and have different demands.

"*Now you see middle-class beneficiaries after the economic crisis. Before we only had specified very poor beneficiaries*." (NU02-01).

"*Dealing with patients' protests about turns and why others went in ahead of them. You know how people are. You need to be the conciliator between the patients and get your work*." (NU05-02).

"*Sometimes they have high expectations that they could find everything, all types of tests, which is not available here*." (NU06-02).

ii. High Demand for Medications

What particularly stood out as the main reason for the increase in workload is the scarcity of medication in the country and the price inflation of drugs, especially those for chronic diseases. Meanwhile, PHCCs possessed a stock of them and were dispensing them at minimal or no cost since they were subsidized by the MoPH-YMCA.

"*As we are within the crisis, the socio-economic status is very difficult. People's financial state is very difficult. They are not able to ensure their medications. Even most types of medications in pharmacies are not available/in shortage. Most people that I see coming, as I usually stay with the cardio-vascular physician during consultations, when he comes here, about 80-85% of people are those who used to buy medicine from pharmacies, and now they haven't been able to pay for the meds, and are asking for the substitute meds"* (NU07-02), and "*Everyone is coming in order to take medications because of the shortage. It is not a matter of financial issues; it is a matter of medication shortage."* (HM01).

iii. Health is a right for all, no one should be turned back

Also, the HCPs mentioned that they never say no to anyone visiting the center despite the high workload "*Sometimes we would have handled a high load and we need to leave, but if we find a beneficiary at the door, the physician (name) comes back in, saying poor person he has come from far away, paid for petrol."* (OT07).

iv. Shortage in Human Resources and absenteeism due to the economic crises

On the other hand, many HCPs left Lebanon at the start of the multiple crises, "*Many physicians have emigrated, outside of Lebanon… Same as for nurses they traveled… That was a challenge."* (HM03). While the ones who stayed in Lebanon started coming less to PHCCs, "*We came less and less, but before, when we had better living conditions, we used to come regularly once or twice per week."* (PH01). All these contributed to the shortage of staff, including nurses, physicians, pharmacists, and other administrative staff, as was mentioned by most of the HCPs, "*Here due to the work situation, we do not have a lot of staff, I am working on everything; nurse, midwife, secretary, IT, laboratory."* (HMMW04). A nurse mentioned, "*I am all by myself in this center… Even in terms of housekeeping, I have no one to help me. How can I work and clean at the same time?"* (NU01). Consequently, it was challenging for the staff to keep up with the workload because of the lack of human resources, "*The biggest challenge is that we are seeing 50-60 new patients on a daily basis and the staff are still the same, they are low in quantity*." (NU03-01).

Despite the pressing shortage of human resources and the need to provide services, PHCCs faced significant challenges in recruiting additional nurses, physicians, and staff due to financial constraints. One health manager expressed frustration

"*In the situation in which I am in, I cannot employ a staff and give him a monthly salary, who could, in turn, support more… We are in need of employees. I am unable to employ people, as I do not have the means to pay their salaries… Yes, lack of source of funds. But yes there is a need for financial income to support human resources to have qualified human resources, who would be able to provide more services. Even with physicians, I have a physician who comes once a month as am not*

able to pay him for more… I do not have the capacity to pay the salaries for 1-2 more staff members who could increase our productivity with their presence." (HM05).

However, some PHCs have managed to recruit additional staff due to subsidies from INGOs. One manager expressed gratitude for such support, saying, "*[..] helped a lot. Supported us, that is how I was able to recruit the new nurses (paying their salaries)*." (HMPH07).

In one PHCC, a nurse mentioned that sometimes physicians canceled their rotation to the PHCC without prior notice. Patients arriving at the center were frustrated and the staff had to deal with their frustrations, adding to their workload,

"*Sometimes they call at the last moment saying that they cannot come when the patients would have already arrived at the center.. we must apologize to them. This is creating a problem with people as every time they have to pay for petrol."* (NU05-01).

v. Non-clinical requirements from MOPH and INGO

It is worth mentioning that besides the administrative tasks such as answering phone calls and arranging files, nurses in all centers had to document on paper and then migrate the data into the PHCNICS system, which was a duplication of efforts and time-consuming.

"*…so we have to write on a paper, and we have to work hard, double triple, making sure the paper is not lost, so that we can enter the data and put it back in the file.*" (NU05-01).

"*After the consultations are done, sometimes after hours, we enter on PHCNICS the information of patients that passed through during the day."(NU07-01)*

The centers that were subsidized by INGOs had to deal with extra pressure because of the requirements of these organizations such as complete documentation, complete data entry, NCD screening for everyone above 40 years of age… "*The present staff is not able to catch up on all the tasks required by the […] program."* (HM05). While the center which was not subsidized by any INGO, was also facing pressure to balance between the MOPH's requirements and the economic situation as voiced by this nurse: "*The Ministry of Health imposes the fee of 10,000 LBP on us, only 10,000 LBP not more! What can be done with such an amount during this economic crisis*." (NU01).

b. Control:

Multiple crises affected the ability of PHCCs to control their work environment to meet the patient's needs and expectations and provide high-quality care. HCPs had no control over the supply of medications, the range of offered services, and their cost coverage. They expressed their concerns over the fiscal sustainability of their centers.

i. Shortage of Medications and Availability of Medical Supplies

Due to the high volume of patients, all PHCCs were facing shortages in medications. Hence, some patients were not receiving all their prescribed medications, which was extremely disappointing given that they were not able to secure them otherwise as a result of the shortage of medicine in the country and the high cost of medications. This was a source of frustration for both providers and beneficiaries.

"*So far, we have 300 beneficiaries' files, however, we have medications that can cover no more than 70 or 90 beneficiaries; noting that all of them have open files at the*

MOPH. The MOPH is incapable of securing the needed amounts of medications." (HM01).

"*People think we have a company, a factory of meds, where we manufacture meds and hide it from them as the pharmacies are doing. Always they say, 'Give us at least a pill, don't you have some put aside, if the meds arrive will you call me and tell me they have arrived'..."* (NU05-01).

Regarding medical supplies, although they were mostly secured through INGOs, certain centers indicated that there was unnecessary duplication in some supplies, while they had to purchase others not being provided at a high cost.

"*We get the same type of supplies, so we get the same stock, stock, stock, while we are in need of other supplies, we would have to go and buy the other types at the high prices."* (NU05-01).

ii. Range of Services offered at the PHCCs

As part of their roles as HCPs in PHCCss, they need to be responsive to their community health needs and provide comprehensive services. In their situation, most centers were able to provide the basic and essential services needed in a PHC such as chronic diseases, pediatric, and maternity services. Some centers offered additional services such as "*dental and oral care services, .. dermatology, physical therapy,.. and mental*." (NU02-01), while others were not able to secure them either because of no funding at all or due to limited budget.

"*Even at this center our budget may be totally utilized and there are times before the end of the month when there are no funds available to do tests"* (NU02-01).

"*Mental health, orthopedics, gastroenterology, and ENT… These are not available here and are in need. Now they do ask about dental care and ophthalmology too*." (NU07-02).

The unavailability of certain services has led to beneficiaries' frustration while the HPCs had no control over the situation. Yet they had to deal with unsatisfied service users. Some centers were able to refer the patients to other resources where the service is available or cheaper, "*Patient referred to another center if service not available."* (HM02).

c. Fairness

i. Workload Distribution

The high workload led many HCPs to be multitasking. " *I work in the pharmacy, on vaccinations, in the triage room, in NCD screening, and in reporting… in management…"* (NU05-01). Often, the staff cover each other's tasks to alleviate the pressure. "*We help each other. We cover for each other. If work tasks end early we leave early."* (NU05-02).

ii. Compensation

Also, during the interviews, it was observed that there were significant differences in compensation for HCPs across different centers. Some centers were providing fair salaries to their HCPs, while others were not. Particularly, the centers that received subsidies on a project basis seemed to compensate their staff better compared to the unsubsidized centers. For instance, one nurse stated, *"Yes, we are working on a project basis. Not like the other nurse. We started receiving USD 850 per month, and*

two months ago they raised another USD 100 for transportation. Now in relation to the others in the center, our salary is very good." (NU06-02). And a physician mentioned, "*Currently, my compensation is acceptable.*" (PH06). While, another nurse mentioned that her salary is better, but still is nothing, "*In reference to the salary, before it was not good, now they fixed it. But in this situation, this salary does not amount to much. I have been here more than 30 years and my salary amounts to nothing." (NU06-01)*. However, not all HCPs were satisfied with their salaries. One nurse expressed, "*No it is not enough. I also work night shifts in a hospital as a staff nurse. We are getting paid the least of the least."* (NU03-01). Another nurse stated, "*Even if I earn 20,000,000 LBP, it still wouldn't be sufficient. However, compared to other locations, the compensation here is better*." (NU03-02). Additionally, a physician-manager shared his perspective, "*The reimbursement received is not enough. We were talking to give each person his right. Yes, with the IMC things got 100% better at the center. But as a physician-manger not adequate.*" (HMPH07).

It has been noted that the HCPs did not get compensated in the same way. This was stated by a manager, "*Now one of our staff, who has been employed with the LRC for the past 30 years receives her salary in LBP. However the other staff members who are employed and paid through the Spanish Red Cross (SRC) cooperation project receive their salary in USD as the funds come from abroad. So the 30-year nurse, who works on several issues, and though as LRC we improved our salary scale, trying to provide some subsidy assistance, her salary will come up to 4,500,000 LL, while the USD nurse salary comes out to be about USD 850 as the SRC recruited her. See the difference."* (HM06). While, a physician mentioned, "*None of the physicians get paid the same, and none know what the other physician is receiving as payment.*" (PH04).

iii. Contract Challenges

Many HCPs, especially nurses, faced significant challenges related to their work contracts. A notable concern was the absence of fixed work contracts for most of them. One nurse shared her experience, mentioning "*I do not have a work contract. We are working temporarily on a project basis. When the project ends, we go home. No contract either with the […] or the center. No insurance. No set salary. We work 'bonus'; what we work is what we get paid for*." (NU07-02). Another nurse stated, "*First of all, I am not fixed at work in this center, neither with the government nor with the Ministry of Health. I also have no social security and no insurance. Even my monthly salary isn't fixed. Sometimes we throw a party and have some donations given to the PHC. I tell some well-off families to have their children vaccinated for free, and they give a donation in return.*" (NU01).

d. Value

i. Value the Work They Do Without Discrimination.

Despite the chaotic circumstances, what stood out from most HCPs was a profound appreciation for and dedication to their work of serving others. They had a genuine love for their profession and consistently strived to improve the well-being of their patients. They mentioned, "*We were raised with the philosophy to help others... If I have the capacity to serve I would serve."* (HM06). "*We are a PHCC with the objective of goodwill, and the objective to collaborate and contribute to the community, with modern and current ideas a bit. We do it out of love. We respect our patients."* (HM03). "*I felt the center is like my home. If you like where you work, you serve*

heartily." (NU06-01). "*As a team here in this center, we serve from our hearts*." (*NU03-02).*

They even did their best to help the patients at all costs, "*I, as a physician, do not look at the economics, my concern is for the patient to get comfortable and heal before I discharge him. I will do whatever is needed, a must*." (PH05). Furthermore, they upheld a strong commitment to serving patients without any form of discrimination, "*We are here, as an institution, to serve without discrimination… If you want to work, there is no discrimination. Your work is benevolent for all people."* (NU06-01).

ii. Feeling What They Do is Not Enough

It has been noted that HCPs often verbalized a sense of inadequacy in the care they provide to patients, feeling that their efforts may fall short of meeting all the needs and expectations. This sentiment reflected their value and a deep-rooted desire among HCPs to constantly improve and provide the highest level of care possible to patients. As they mentioned, "*You can feel sometimes that you need to help people in much more ways, more than medications…"* (NU03-02), and *"I feel I am underperforming in health education…"* (NU06-02).

They were very concerned about the quality of care as a result of the situation. They were rationing services due to restricted time and supplies. "*Sometimes I do not have time to do all that is needed to be done.*" (NU06-02), They mentioned if they had more time, they were willing to provide more to patients, "*I have no problem giving more. If you give me more time with the patient, then I can listen to the patient."* (PH04).

e. Reward

i. Rewarding Work

HCPs found their work rewarding due to the positive feedback received from some patients who were not only happy and satisfied but also expressed their gratitude and appreciation for the services provided by PHCCs. For example, they mentioned that "*The patients pray for you and tell you "God bless you and your family". These words give you hope and purpose in this life to be able to continue and serve other people."* (NU03-02), and "*People were thankful for your services. We do not let anyone go out not satisfied, ever. They send a prayer. When an elderly man or woman stands at the door and sends a prayer for my children I get happy."* (OT07).

Also, HCPs expressed that it was rewarding to see patients getting better, "*She came several times and visited the medical team, and now she feels much better. Of course, I was thrilled to see her when she last came here and was looking good and smiling at me."* (NU03-02).

ii. Unrewarding and being Humiliated

While HCPs found great fulfillment in witnessing the happiness and satisfaction of patients with the services they provide, it is important to acknowledge that they also encountered instances where they faced humiliation from patients, both in person and on social platforms.

For example, a nurse mentioned that patients scream or nag because medications are not available, "*We have a challenge, in which people are stressed. It is like you have seen people attacking banks, people sometimes attack us, scream at us, bang on the*

doors, they want their medications and their medications are not available." (NU05-01) and "*The patients are nagging you told us to change the med and now you are not giving us the medications."* (PH04). Moreover, sometimes the patients argue and get irritated because of waiting time, "*Some patients may be loud. The patient may get irritated if he has to wait for his turn. Or do not understand that urgent cases may have to be served ahead of others… they argue; about waiting times, been waiting 2 hours, why hasn't the physician seen me yet, I want to go in, why am I waiting."* (NU05-02), "*They may scream and insult you if the physician is late."* (NU02-02). Additionally, they may be irritated with the process of care in PHCCs, "*Patients are ensured to receive services. But patients may be bothered by the process, the routine. They may not understand that test results take time to come out."* (HM05). Also, they may be angry because the center sometimes does not cover all the lab tests, "*Due to a low budget cannot cover needed services, and beneficiaries get irritated*." (NU02-01), "*Some go crazy saying we do not want, you are crooked, you lied to us."* (HM03). On the other hand, there was a center that mentioned that they get humiliated even on Facebook, "*These are the criticisms that we get. On Facebook, sorry to say we get racist comments.."* (HM03).

With all these, the HCPs understood patients, "*They do not understand us, but we understand that he needs his meds."* (HM05), but sometimes they felt that they do not want the patients visiting the centers, "*Sometimes I wish I could just block their coming here. As they say, things that are not true and you are not sure of."* (HM03).

f. Interprofessional Relationship

i. Model of Interprofessional Collaboration

Despite all the difficulties in the work environment, including workload, not being able to control, humiliation, etc., HCPs mentioned that they had a good relationship. First, they were like a family, "*There is a family culture at the center, the staff is very homogeneous, which is very good..."* (HM03), and "*I consider it that I am working with family members."* (NU06-01). Also, they respected each other, "*Respect is reciprocated between the center staff."* (PH06), and "*The physicians respect us a lot.*" (NU03-02). Furthermore, they mentioned that they have good collaboration with each other, for example, "*The nurses always have a debriefing between themselves, always. If a physician changes a patient's meds, we do not depend on the file only, I will tell the other nurse, and vice versa."* (NU05-01). *"We coordinate always. We debrief each other always, especially since I leave work before her. Always when I leave I debrief her and when she leaves she debriefs me."* (NU05-02). *"I coordinate well with the physicians."* (NU06-01), and "*There is complete coordination with the nurses."* (PH06).

ii. Challenges to Interprofessional Collaboration

Mainly the HCPs in all the centers had good interprofessional relationships and collaboration, except for one nurse who mentioned that the situation was not ideal for physicians, "*As for coordination with the physicians sorry to say it is not done much."* (NU05-01).

g. Manager's Perspective

i. Coping

The managers were dealing with high expenses. They were over-pressured to support the needs of the community with low fees and on the other hand to manage the operating system of the center. The managers mentioned, "*I am a center manager and I can understand other centers, with the expense of the USD and with the high expense of meds, the operating expenses of the center are very high…"* (HM06). "*They are coming to the PHC, and we are over-pressured because the consultation is nearly free of charge…"* (HM01).

However, given the challenging circumstances in Lebanon and the various changes taking place in PHCCs, managers have been actively seeking ways to cope with the situation and to balance their costs, particularly in terms of securing additional funds. For example, a manager mentioned that they beg to help the communities, "*Every time we see any association giving, we "beg" from here and from there so we can look after the poor families… We try to "beg" in order to get anything for the community such as milk, diapers, food, anything… We gathered from here and there and we begged a lot of people so that we could afford to keep the PHC alive."* (HM01). Also, they said that they are seeking help from the people in the community because municipalities are not supporting them, "*The X village municipality does not do that. No cooperation. Last month, I told the funder who supports the PHCC, that we need an ophthalmology clinic, in the amount of $20,000, he told me to get price offers. He is ready to support the clinic with his personal funds."* (HM06). Although they were trying to get funds, however, they mentioned that "*100% that we are falling. Few are*

the people who are helping. We are trying to cut down expenses; We are unable to fulfill our PHC duties as we should…" (HM01).

ii. Negotiation Challenges

Furthermore, managers have been encountering challenges due to negotiation arising from maladaptive mechanisms, particularly about physician payments, "*It is tiring to deal with some of the physicians regarding financial matters*." (HMPH07), "*The physician here tells you I will not work if you can't pay up the tariff. So here is the challenge on how you are able to get them to PHCC, especially since they are members of the Order of Physicians which is telling them you cannot take less than the minimum*," (HM03).

While they strived to retain qualified physicians within their teams, the existing payment structures often fell short of meeting their financial expectations. The consultation fees were not covering the physician payments, and the managers were facing issues in balancing revenues and costs. The managers mentioned, "*The person responsible for the health center works hard to ensure the satisfaction of the physicians and tries to solve problems even if it is above his financial capacity. It is still ok. The physicians we have we try to hold on to."* (HMMW04)*,* "*The physician consultation fees are covered by the SRC project. The PHCC takes 20,000LL per beneficiary visit, however much I pay him it would not work out. This is a problem"* (HM06), "*For a physician to be able to arrive here, he/she needs 1,000,000 LBP only for fuel. The maximal consultation fee here is 10,000 LBP. There are between 5 and 10 patients, which means that we are losing about 900,000 LBP every time a physician comes… The physicians used to cost us a lot more than our revenues, which rendered this PHC*

depleted, especially with the poor socioeconomic status of the village community." (HM01).

Furthermore, managers expressed concerns about the potential loss of partnerships, particularly with INGOs, when the needs of the community may not be adequately met. One manager articulated this apprehension, stating, "*Our strengths lie in having the […]Administration's support. What worries me is the loss of our international funder... what about the future, afraid that you will lose this partner. And you cannot press people as they are restricted socio-economically…"* (HM06).

iii. Fiscal sustainability challenges of the PHCCs

The economic situation in Lebanon had significantly impacted the fiscal stability of most centers and the HCPs had to bear the consequences, particularly the managers. They had to find alternative measures to sustain themselves and continue despite all odds.

A health manager mentioned "*I have the generator operating 24 hours a day. Can you imagine the diesel expense? Honestly, I am currently in debt. Yes, diesel is available but expensive. I have a debt, I have filled 3-4 times but I have not paid the supplier any lira. I am unable to pay. He wants payment in USD not in LBP."* (HM05).

" *There are people, who give us a 1,000,000LL every month, in appreciation as we are serving the population. They are not an NGO or an institution. They collect money from each other and send it to the center. I take these donations and would be happy about it*." (HM03).

iv. Doing their Best

Despite facing numerous hardships, managers expressed their unwavering determination to persevere because they recognized the vital role PHCCs play in serving their communities. One manager stated, "*We will try with all our capacities and efforts not to close but to continue as the area is in need. The area does not have other centers, only this center, as a big center. We will try not to close, but if we have to then what can we do at the end*." (HM05) Another manager reflected on their responsibilities by stating, "*But as a manager, I need to think that I cannot provide lesser services. I need to think about how to sustain the present services offered and develop further. If the project ends, I cannot say one staff member is adequate. It does not work anymore. We are trying to find substitutes to help ensure the sustainability of this PHCC services at this level and not to go backward."* (HM06).

Also, managers remained resolute in their dedication to upholding a high standard of care. They demonstrated their commitment by taking proactive measures, such as emphasizing the importance of staff training and development. For instance, "*We are focusing on sending the nurse to as many conferences and workshops as we can so that she can learn more, even if this costs us a lot."* (HM01), "*We send the staff to all the activities offered by the MOPH, and we cover their transportation."* (HMPH07).

3. Unpaid Work in the Work Environment and the Community

Due to the multiple crises, the unpaid work aspect was noticeable in the workplace and the community at large.

a. In the Workplace

i. Lack of compensation for the paid work

Some HCPs are not receiving their due salaries or due compensation. They were working for free, or perhaps ironically paying out of their own pocket to continue working. One HCP mentioned, "*It's been 2 months that I haven't taken my salary*." (NU01). Another example was given by a doctor who said that he is even not receiving compensation at all, "*I am a doctor and all that I get as a fee for coming to the PHC is 50,000 LBP, and most of the time they are not paying it to me… Now with the economic collapse, it's been like two months that I haven't come because they tell you: "We can't pay you"...*" (PH01).

The lack of salary compensation was due to the terms of the INGO subsidizing the PHCCs. "*We do not have an NGO that finances the PHCC, overall. […] does not cover salaries but pays for services… neither the MOPH nor an NGO covers our salaries. The salaries are covered by the payments received for the services… That is why we have a problem with salaries."* (NU05-01).

Moreover, the dedication of the healthcare staff extended beyond their official working hours. They willingly undertook unpaid overtime by bringing work home to keep up with the demanding workload. When faced with system failures, they persevered by taking their tasks home and working late into the night. One expressed, "*We are having to take work home with us to be able to complete the work. Sometimes the system does not function for 3-4 hours, I take work home with me. I take it home and work on it at night*."(NU05-02), while another mentioned, "*I am working on data entry after work hours. I take the files and work on them at home, and there isn't an opportunity to work on them here at the center*." (NU07-02).

ii. Transportation Challenges.

The economic crisis resulted in increased petrol prices, which posed challenges for HCPs in commuting to PHCCs. Nurses expressed concern, stating "*Yes, I worry about transportation as all the salary that you get at the end of the month you pay for petrol*." (NU04). Physicians also highlighted the transportation issue, stating "*As a physician, in order to come to this center, I need one fuel tank. I used to get paid 50.000 LBP for the ride, but during Covid, it increased to 100.000 LBP. The problem now is that the center can't even afford to pay me the fuel, not even the 100.000 LBP. What is the value of 100.000 LBP anyway*?" (PH01).

b. In the Community

i. Going Extra Mile

During interviews, it was revealed that some HCPs willingly dedicated their time and expertise to community service, assisting patients, families, and the community. In small communities where everyone knew each other, HCPs often found themselves being contacted by individuals seeking their advice or help. As one HCP explained, "*They get my phone number from others, as we live in a village. People call me seeking my opinion if it is a personal acquaintance, my family. Here everyone knows everyone else.*" (NU05-02), another mentioned, "*Sometimes, some people, many call me, as I am the center manager and they have my phone number, asking for a favor*." (HM06).

They even mentioned that they assisted people at any time during the day. When asked about being available over the phone, one physician replied, "*Yes, by text messages only even if at 1 am in the morning*." (PH03). Similarly, a nurse shared, "They

call me even at 10 pm at night. Ask about the physicians. They send me names of meds to see if they are available…" (NU06-01), "*Sometimes in the middle of the night if they need me, they call me…*" (PH01). Despite the additional unpaid work, some HCPs expressed satisfaction in being able to assist in various crises. As one HCP reflected, "*Since I started here till now, I have added so many phone numbers to my phone. Yes, they call me. Honestly, it is very tiring, there is no time to relax at home. But on the side, you are happy that you are benefiting someone by not hanging up on them…especially in these situations."* (NU07-02).

In some instances, physicians even offered free consultations over the phone, demonstrating their dedication to helping others. One physician explained, "*A lot of them call me. Now if I hadn't put the phone off for the interview, it would have rung 6 times. They call me not only from this village but from all over the area and they ask me about medications to take. I help them as much as I can over the phone. If I show you how many consultations I did over the phone today, you won't believe me. It's 11 am in the morning, and I did so far 20 consultations. I don't take anything in return for these consultations."* (PH01).

Furthermore, the HCPs displayed exceptional dedication by voluntarily providing home visits to patients and offering essential services, a manager mentioned, "*If someone from outside this village needed to change a wound dressing, the nurse would do it without hesitation. She has no limit for giving, a lot of people owe their lives to her…*" (HM01). In addition, amidst the petrol crisis, these remarkable individuals went the extra mile by personally delivering medications to patients' homes. Although this practice may not align with established protocols, it was an act of necessity driven by compassion. One nurse shared, "*Sometimes the health manager delivers the*

medications, though this is not well accepted." *(NU06-02)*, while the health care manager mentioned, "*As they can't take a taxi service. They are in need of medication. As I have means of transportation. Many times I do that. Though it is not my role. And legally speaking the concerned person should be receiving directly the medications from the center. But in this crisis situation, no, as I am a manager I do it*." (HM06).

ii. Not Willing to Do Extra

Despite all the unpaid work done by many HCPs, few mentioned that they did not give their phone numbers to protect their time, for example, when a nurse was asked if she shared her phone number, she mentioned, "*No because the phone number will be spread and I will end up being a private nurse. Even the physicians, we don't give them their phone numbers. They call the center in case they need anything. We do the follow-up in the center." (NU03-01),* another nurse replied, *"No, I think that this should be private*." (NU03-02).

4. Health

a. Mental

i. Mental Pressure

HCPs expressed their emotional burden in the face of multiple crises and affected work environments, with feelings of being pressured, overwhelmed, stressed, sad, and even shedding tears. One nurse shared, "*I am overwhelmed… I go home crying*" (NU01), While a health manager-physician expressed the impact of medication shortages, saying, "*For me, when we have medication shortage, I get sad.*" (HMPH07), and a physician mentioned, "*This is all stressful*." (PH05). The emotional toll extended

beyond themselves as they empathized with the circumstances of the patients they cared for. One HCP described the distressing situation: "*You look at him and you feel distressed at the circumstances they got to/are in. A big old man, 80-85-year-old, standing waiting to take meds, he has no elderly insurance… nothing… I am afraid and the patients are very scared of a medication shortage*." (OT07). They described their heartfelt connection to their patients, acknowledging, "*Here emotionally and in your heart you feel all the patients' difficulties*" (NU03).

Amidst the immense pressure they faced, HCPs emphasized the importance of maintaining a positive demeanor at work, even if they had been experiencing personal distress or mental pressure. This was revealed when a nurse mentioned, "*You need to keep smiling at work even if before coming to work you were crying. We got used to it. Even whatever they say you accept it and give advice. You do not get sad, cry, or get affected. Yes, they may hurt me when talking, but I take it in a normal way. I am peaceful.*" (NU02-02). Also, they acknowledged the necessity of patience and effective communication, "*Sometimes we are unable to be patient with the patients. You would say okay take your medications and stop chattering over my head." (NU05-01), "Always talk with politeness even if the patient is angry. Staff does not shout back at a patient. Respond with politeness. Staff got used to this type of interaction*." (HM02), and "*There is a great need for people to listen, and people to be calm and know how to calm people. Because the pressure we are living in is very great. And this creates problems.*" (NU05-01).

However, some HCPs found solace in their ability to make a difference, feeling psychologically fulfilled, others mentioned feeling fine and at ease despite the challenges. One nurse mentioned, "*I am the type of person who feels that I helped*

myself every time I help other people. Not everything in life needs to be with returns. I go home feeling psychologically well." (NU03-02). Another HCP added, "*Even if I was up late the night before, I wake up early and come here. I am at ease psychologically*." (PH06).

The HCPs also recounted encounters that left them deeply affected. A nurse mentioned, "*I am unable to take care of my husband and kids."* (NU01), because of the mental pressure she is experiencing. While another nurse shared an experience, recounting instances where seemingly "normal" patients unexpectedly broke down in tears, unveiling their hidden struggles, saying," *You see that the patient is quite "normal" then when you ask him/her a question, he/she starts crying. I haven't seen such a case before. All patients seemed to be alike to me. When you ask a patient if he/she has problems in his/her life and if he/she thought of suicide; he/she starts venting and comes to hug you. I experienced a similar case here, after which I got shocked for 2 days; I kept thinking of her."* (NU03-02). Also, concerns regarding continuity and the uncertain future were expressed, "*There is a risk of continuity. Until now there is no fear of no continuity, you never know, who said we will get to this situation*." (HMPH07).

b. Physical

i. Fatigue

Regarding the physical aspect of health, HCPs only mentioned that they were fatigued because of the work environment and the situation they are in, here are some expressions during the interviews, "*As the situation is getting worse, here they try to help us more. But still more is needed given that we work 24 hours, working with*

patients in the middle of the night, and sometimes we do not sleep… putting time-work-fatigue." (PH02), "*I get tired but am managing. There is a lot of work-tiredness."* (HMPH07), "*Today, with the load of work I feel exhausted."* (NU06-01), and *"I am working over my capabilities and I am getting tired*." (NU01).

E. Recommendations

Throughout the interviews, it was possible to hear from HCPs about suggestions they had about different aspects of the paid work environment during multiple crises, including staff, services, availability of physicians, supplies, and financial aspects. Table 2 presents suggestions to improve the work environment of HCPs in times of crisis. The HCPs' recommendations were to improve the shortage of staff, the availability of services, physicians' availability, good coordination of supplies, and the financial aspect of the work environment. Regarding the staff, they mentioned that it is crucial to have a clear job description for fair distribution of tasks between HCPs. Regarding the services, they suggested having more services with longer working hours through subsidization and better payment to employees. They emphasized the importance of financial resources in supporting qualified human resources to enhance service provision. They also acknowledged their inability to afford additional staff members who could significantly increase productivity. Regarding the availability of physicians, they suggested having more physicians through having a network of physicians rotating centers, and through volunteer medical students. Regarding the supplies, they mentioned the importance of coordination to balance supplies and demands. Regarding the financial aspect, they mentioned improving the centers through INGOs and improving the salaries of the staff. At last, regarding the mental needs, they

highlighted the importance of having support and someone who can lend them a listening ear, and relaxation sessions.

Table 2. Suggestions heard from the HCPs.

Suggestions
Regarding the staff: *"First, we need staff. Each with a clear job description and implements his work in good conscience. I am not interested in someone who works a lot but it is not his job to do so. And someone who does not work because it is not his role. There should be a fair and logical distribution of tasks between staff."* (NU05-01). Regarding the services: *"If we know how to work with the PHCCs to have more services and have longer working hours, and as we have a subsidy we can pay employees more to stay until 6:00 pm for example, or get staff for a second shift, and that way we may be able to open till 8:00 pm."* (HM03). Regarding the availability of physicians: *"Physicians should be present for longer periods in the center."* (NU05-01). "*We have space, we wish we could work with someone who would send us residents, medical students who could come on weekends."* (HM05). *"I suggest maybe having a network with specific physicians in a certain region who can do rounds on several PHCs."* (HM01) "*To increase the number of physicians, you need to pay more money. So according to me, we are going towards a worse situation."* (PH04) Regarding the supplies: *"We are in need of coordinating with the MOPH, which organizes the distribution of donations, for them to be in accordance with the PHCC's needs. It should not be according to 'what we have that has a near expiration date, which we have to distribute'."* *"Those who want to donate and do charitable work, have to send them a few months before the expiration dates."* (NU05-01). Regarding the financial aspect: "*Improve the center financially. Provide assistance and have NGOs. Like when IMC entered into an agreement with the center it improved meds availability and our salaries. All were happy. Something like that. Anyone that can help as the MOPH is unable. At least the MOPH would have employed us if it was able. No, we are not employed by the MOPH. Have financial support to keep the PHCC going."* (OT07) Regarding the mental needs: *We are in need of support, someone to listen to us, as the MOPH tried once to do, (mental health support) for us and for the people. When we attend the MOPH workshops, we meet staff from other PHCCs… We talk together saying we are all in need of someone to listen to us and to the people."* (NU05-01). "*We also need to be taken care of as nurses. You know, if we were more relaxed, we would be more efficient at work… Sometimes I put my phone off to have a break, but there is no*

replacement for me… Come and give this poor nurse a relaxing session for her to relieve her stress and burnout." (NU01).

CHAPTER V

DISCUSSION

The unfortunate events in the work environment, unpaid work, and the health of Lebanese primary HCPs were reported in this study. This knowledge is meant to inform decision-makers on priority concerns that need to be addressed through targeted interventions. Participants also voiced their recommendations to improve the work environment and unpaid status. In the sections that follow, we will discuss the results that were presented in light of the available literature, the implications on research and practice as well as the strengths and limitations of the study.

A. Discussing the Emerging Themes in Light of the Available Literature

1. Social Factors

a. Food Security and the Ability to Cover Basic Needs

After multiple crises, the cost of living in Lebanon has changed significantly. In 2020, when the economic crisis was at its beginning, 60% of the Lebanese people were struggling to get enough food (ReliefWeb, 2020). The combination of an economic meltdown, hyperinflation, and severe shortages of fuel, electricity, and medicines has pushed these families to the edge and even beyond, amplifying the already critical humanitarian crisis in the country (Khoury, 2021). In a survey in 2022, it was revealed that half of all families living in two of the country's regions were unable to meet children's basic needs (*Rising Numbers of Lebanese Families Unable to Afford Food, Education for Their Children - Lebanon*, 2022).

Our study pointed out that the HCPs were struggling like anyone else in the country to secure enough food and meet their basic needs due to financial constraints. The statement made by nurses about the salary lasting a maximum of five days the challenges related to fluctuating food prices and the need to cut back on expenses indicate the challenging economic situation faced by HCPs.

The financial strain experienced by HCPs is not limited to nurses alone. A physician mentioned the difficulty of earning enough to sustain himself and his family. This emphasizes that the economic hardships extend across various HCPs, affecting the overall security and well-being of HCPs.

Their limited financial capacity can have significant implications on the work environment and patient care. It can not only affect their personal lives but also impact their ability to perform effectively in their roles as HCPs. Insufficient income to cover basic needs can lead to stress (Liu, 2021), which can, in turn, affect the overall work environment, job satisfaction, and performance (Bui et al., 2021). Eventually, this can affect patient care delivery.

2. Work Environment.

The findings presented in the previous sections shed light on the changes encountered by HCPs in PHCCs concerning the work environment, especially regarding workload, control, reward, interprofessional relationships, value, and fairness.

a. Workload:

The results above indicated that the first challenge by HCPs was the workload due to many factors, which affected their work environment.

The influx of patients. There was an unprecedented influx of patients visiting INGO-funded PHCCs after the crises. This increase in patient load has led to a high workload for the staff, with some even working long hours to meet the demands. The findings suggest that the crises, specifically the economic crisis topped with the COVID-19 pandemic, have played a significant role in attracting more people to PHCCs for healthcare services. The economic crisis has led to a marked decline in disposable income (World Bank, 2022). , increased illness reduced access to unfunded healthcare services, and a decline in the overall health of the population (Zavras et al., 2012). Also, the COVID-19 pandemic tremendously changed healthcare utilization worldwide (Hamano et al., 2022)

One factor contributing to the surge in patients in Lebanon is the subsidized fees offered at PHCCs. Patients were motivated to visit these centers due to the availability of physicians and the symbolic prices of consultations. This affordability factor becomes crucial during times of economic crisis when people are facing financial constraints, which the PHC department at MOPH worked hard to secure. Further, the comparatively lower cost of PHCC services, as compared to hospitals, has made them an attractive option for individuals seeking medical care. Hence more individuals were turning to PHCCs as a cost-saving alternative.

The profile of patients visiting PHCCs has also transformed. Before the crises, the patient population primarily consisted of poor individuals with mainly Syrian or sometimes Lebanese nationality. However, after the crises, there has been a notable increase in middle-class patients, particularly Lebanese individuals, seeking services at PHCCs. The centers were encountering patients who, due to their insufficient economic situation, never would have considered PHCCs as a healthcare option before the crisis

since private health services are beyond the reach of many (Azhari, 2022). However, despite being a challenge, this influx of patients needs to be considered as a silver lining. MOPH-PHC Department was aspiring to make the PHC system the cornerstone of the health care system. This is a window of opportunity to realize this aspiration. However concerted efforts need to be made to sustain and increase the utilization of PHC services. It is crucial to provide high-quality, comprehensive, and equitable services to increase trust in the services and increase the number of clients seeking health services in PHCCs (Wellay et al., 2018). Hence, identifying key health indicators for those criteria, collecting data regularly, and reporting on the performances across PHCCs will be key in establishing this trust and maintaining this momentum.

High demand for medications. The findings indicate that there is a sizable demand for medications at PHCCs as a result of Lebanon's economic challenges. Since the Lebanese government stopped funding the majority of them, people in Lebanon were no longer able to obtain or pay for essential and life-saving drugs (Amnesty International, 2023) One of the services provided by PHCCs was the provision of essential pharmaceuticals (Moph, n.d.). The centers have grown to be a reliable source of medications, providing them at little to no cost, making them a valuable resource for people who cannot find or afford medications at pharmacies.

Despite being considered an added pressure, HCPs stood up as a beacon of hope for many beneficiaries. Their altruism is to be commended as we have seen in this study, they went the extra mile to help patients secure their necessary treatments, including medications (Lakhwani, 2023).

Health is a right for all, no one should be turned back. Another trait that stood out among the HCPs that is to be commended is that despite the workload pressure, they

never ignored a patient. This high commitment to providing care to all individuals seeking assistance reflects their altruism and dedication to providing patient-centered care. Research and literature emphasize the significance of patient-centered care and its positive impact on healthcare outcomes. Studies have shown that patient-centered care leads to improved patient satisfaction, better treatment adherence, and increased trust in HCPs (Kuipers et al., 2019). The commitment of HCPs to never turn away patients aligns with the principles of patient-centered care. It demonstrates a compassionate and empathetic approach that acknowledges the unique circumstances and challenges faced by patients (Santana et al., 2018). By prioritizing patient needs over their workload constraints, HCPs can create a supportive and caring environment that fosters trust and promotes positive patient experiences.

Moreover, the support provided by health managers in reinforcing this practice is crucial. By emphasizing the importance of not being off- anyone, health managers set clear expectations for the staff and promote a culture of patient-centeredness within the PHCCs. This aligns with the role of leadership in fostering a patient-centered organizational culture and ensuring that the values of compassion, empathy, and inclusivity are upheld (de Zulueta, 2015).

Shortage in human resources and absenteeism due to the economic crises. The findings revealed a shortage of human resources**,** including nurses, physicians, pharmacists, and administrative staff, due to the multiple crises in Lebanon. The shortage of HCPs is a significant problem worldwide, which was exacerbated by the COVID-19 pandemic (RevCycleIntelligence, 2022). However, since Lebanon has unique circumstances, the HCP shortage was further intensified. For example, nurses were leaving because of unsatisfactory salaries or benefits, better work opportunities in

other countries, and a lack of professional development or career advancement (Alameddine et al., 2020). This shortage has a direct impact on the workload of the existing HCPs, especially less experience, and their ability to meet the increasing patient demand. Highly educated and experienced nurses were leaving Lebanon, which presented a challenge for the less experienced nurses remaining in the country, who could have been advantaged from the mentorship and experience of their migrating peers (Alameddine et al., 2020). In addition, when there are huge layoffs and resignations, the remaining employees are short in number and overburdened (Christian, 2023), which can lead to an unbearable workload, pressure, and the need for overtime work (Carayon, 2008b; Christian, 2023), which was the case in PHCCs in Lebanon. Also, the inability to afford additional staff members not only affected the workload but also limited the capacity of PHCCs to expand their services and enhance productivity.

The scarcity of primary HCPs has a detrimental effect on the availability of services and access to healthcare, leading to significant delays in receiving timely medical services and creating barriers that negatively impact health outcomes. Longer waiting times, reduced time available for patient care, and compromised patient safety are common issues associated with understaffed healthcare facilities (Carayon, 2008). HCPs who face excessive workloads are more prone to stress, burnout, and job dissatisfaction, which can ultimately affect the quality of care they provide (Portoghese et al., 2014). Having access to comprehensive and high-quality healthcare services remains crucial for the well-being of individuals, encompassing physical, social, and mental health, as well as the overall quality of life (Slone, 2022). Adequate access to primary care also facilitates the implementation of preventive measures, effective

disease management, and the reduction of avoidable diseases and mortality (Slone, 2022).

Moreover, the PHCCs are not able to recruit additional staff because of financial constraints, since they struggle to afford competitive salaries, and have limited resources to employ more HCPs, while some centers have managed to recruit additional staff through external support. The literature emphasizes the importance of financial investment in the healthcare workforce (Hanners, 2023), and external assistance to meet the needs of healthcare.

The issue of time constraints in the work environment mentioned by HCPs in providing services to patients highlights a critical aspect of healthcare delivery in PHCCs. With all the workload, due to many factors mentioned above, the HCPs have time limitations to provide the care needed for the patients. Time limitations can impact the quality and comprehensiveness of care provided and can pose challenges for HCPs in meeting patient needs and expectations. For example, a study by Tsiga et al. (2013) showed when time pressure increases as a result of a high workload, adherence to patient safety guidelines is affected. The study mentioned that the physicians ask fewer questions concerning presenting symptoms, than the ones indicated by the guidelines, conduct a less-thorough clinical examination, and give less advice on lifestyle, because of time limits (Tsiga et al., 2013). Also, patients experience better care when their physician has more work hours, longer consultation times, and especially, a higher job satisfaction (Schäfer et al., 2020). Given the high workload pressure, improving the consultation visit time is a long-term goal that needs to be addressed and will be crucial for the beneficiaries' trust.

Additionally, the problems highlighted by nurses regarding patient-related issues in PHCCs, such as last-minute physician cancellations and patient dissatisfaction, have significant implications on healthcare delivery, the workload of HCPs, and the trust of beneficiaries. One of the challenges mentioned by nurses is the occurrence of last-minute physician cancellations, where physicians inform the PHCC that they are unable to attend scheduled appointments. This situation creates problems for patients who have already arrived at the center or made appointments, resulting in inconvenience and frustration. These cancellations can lead to a waste of patients' time, as well as additional costs incurred for transportation, such as petrol expenses. This not only negatively impacts patient experience but also places HCPs in a difficult position of having to apologize to patients and manage their expectations. Research has shown that last-minute cancellations can have detrimental effects on patient satisfaction and continuity of care, as well as many adverse outcomes (Scheenstra et al, 2021).

Another challenge mentioned by nurses is dealing with patients' protests about turn-taking and perceived unfairness in the appointment process. Patient dissatisfaction regarding turn-taking can create additional strain on HCPs, who must act as intermediaries and conciliators between patients while also managing their workload. Important to note that this might create an additional burden on the staff, however, managing patient expectations and addressing concerns in a timely and effective manner remains crucial for maintaining a positive patient-provider relationship and ensuring a smooth healthcare delivery process (El-Haddad et al., 2020).

Non-clinical requirements from MOPH and INGO. The additional pressure faced by PHCCs subsidized by INGOs and the challenges encountered by centers

without INGO support highlight the complex dynamics and requirements imposed by external organizations and government entities.

PHCCs subsidized by INGOs often have to meet specific conditions and requirements imposed by the funding organization. These conditions can lead to increased work pressure and sometimes overwork the HCPs and staff members. Studies emphasize the importance of aligning donor requirements with local priorities to ensure sustainable and effective healthcare interventions. When donor requirements are not aligned with local needs, it can create a burden on PHCCs, diverting resources and time away from direct patient care (Huffstetler et al., 2022). On the other hand, centers that are not subsidized by INGOs may also face pressure due to the economic situation and the demands of the MoPH. The economic crisis can create financial constraints, making it challenging for these centers to provide quality care while adhering to the low fees mandated by the MoPH.

Moreover, the data entry on PHЄNICS sheds light on the challenges faced by HCPs and their impact on workload and patient care. These issues have been reported by HCPs, particularly nurses, who are responsible for managing administrative tasks and data entry alongside their clinical responsibilities. Data entry on PHЄNICS emerges as a time-consuming task that adds to the workload of HCPs in PHCCs in Lebanon. Since there is a lack of dedicated staff for this specific function the existing staff, primarily nurses, must allocate additional time and effort to enter patient information into the system. This not only extends their working hours but also diverts their attention from direct patient care. Unlike the study by Jabbour (2020), which mentioned that using electronic health records (EHR) is not a time-consuming activity and does not increase the workload, as there is no significant difference in the amount of time spent

by patients in the reception area, the waiting area, consultation time, and at the pharmacy between the EHR and paper-based groups. On the other hand, the literature also recognizes the burden of administrative tasks on HCPs (Herd & Moynihan, 2021; Heuer, 2022), and highlights the need for efficient systems and adequate support to alleviate their workload and enable them to focus on patient-centered care (Greene et al., 2012).

The increased workload in PHCCs has significant implications for the ability to provide follow-up care and the overall quality of care delivered, as the findings revealed. The constraints of workload and time limitations mentioned by HCPs hindered their ability to effectively follow up with patients, which can result in potential gaps in continuity of care and reduced patient satisfaction.

Studies by Pérez-Francisco et al. (2020) and Kovacs & Lagarde (2022) further support these findings by emphasizing the negative consequences of a high workload on patient care. Pérez-Francisco et al. (2020) highlight that workload and work pressure can limit the time that HCPs, particularly nurses, can dedicate to patient care. This limitation affects their ability to provide adequate follow-up and compromises patient safety. The study suggests that when HCPs are overwhelmed with numerous patients and tasks, they may struggle to allocate sufficient time for follow-up activities, leading to potential gaps in continuity of care. Furthermore, Kovacs & Lagarde (2022) discuss the potential trade-off between the number of patients seen and the quality of care provided to each individual. A high workload can strain HCPs' capacity to deliver comprehensive and personalized care, as they may feel pressured to prioritize quantity over quality. This trade-off can have implications for patient outcomes and satisfaction,

as patients may perceive rushed consultations or incomplete follow-ups as indicators of lower-quality care.

Finally, the findings show that the work environment of HCPs has been affected because of the multiple crises, as the findings show the challenges and pressure faced by HCPs because of an influx of patients, high medication demand, time limitations, never ignoring patients, problems with patients, unbearable INGO requirements, data entry, and shortage of human resources, which all led to inadequate follow-up and quality of care.

b. Control

The findings revealed that the work environment of primary HCPs was also changed because of the "Control" construct, which showed that they faced challenges in controlling medication supply and cost, as well as meeting the needs of patients in terms of services. These challenges are primarily attributed to multiple crises, particularly economic crises, which have had a profound impact on the healthcare system in Lebanon.

Shortage of Medications and Availability of Medical Supplies. The shortage of medications and the inability to secure an adequate supply of drugs pose significant challenges for PHCCs. This shortage can be attributed to the increased patient load resulting from the crises, as well as the inability of the MoPH to ensure an adequate supply of medications. The testimonies from HCPs in the study reflect the reality faced by many PHCCs in Lebanon. Since the start of multiple crises, Lebanon has experienced a shortage of basic drugs and medications across pharmacies (By THE MEDIA LINE, 2023), and according to Khattar et al. (2022), it was highlighted that

with the economic crisis, the COVID-19 pandemic, and the explosion of the Beirut Port on August 4, 2020, the already fragile Lebanese healthcare system has found itself at massive risk of a catastrophic public health crisis secondary to cardiovascular drug shortages. The impact of currency devaluation, import restrictions, and the inability to access foreign currency on the availability of medications has led Lebanon to face a huge burden on healthcare to control medication availability (Khattar et al., 2022). This was further supported by the findings in this study, revealing that the PHCCs were also facing difficulties in securing the needed drugs for a huge number of patients, despite the support they receive from INGOs.

It was proved that medication shortages result in negative patient clinical, economic, and humanistic outcomes (Phuong et al., 2019). The shortage of medication can impact patient care, treatment outcomes, and patient safety (Phuong et al, 2019), since HCPs in PHCCs may have to resort to alternative available options, which may not be suitable for patients. In addition, this may increase workload, as HCPs often may have to spend additional time and effort searching for alternatives and managing medication shortages. This affected the control of the care being provided to patients.

Regarding medical supplies, fortunately, the PHCCs in the study were able to secure the needed supplies with the support of INGOs, but they faced a few limitations in terms of variety. This issue was attributed to the reliance on INGOs for supplies, resulting in a lack of diversity in the available stock.

Range of services offered at the PHCCs. The findings showed that the availability of services varied among different PHCCs, with some centers able to provide a comprehensive range of services, while others lacked certain specialties. The COVID-19 pandemic and economic crisis have further exacerbated the availability of

services, leading to the reduction or discontinuation of some services due to restrictions and financial constraints. This can be further supported by Anesi & Kerlin (2021), showing that COVID-19 has led to resource and service limitations in healthcare.

The absence of certain services can restrict HCPs' ability to provide comprehensive care to their patients. HCPs may not have access to diagnostic tests, specialized treatments, or referral options, forcing them to work within limited means. This can increase HCPs' pressure, and compromise the quality of care and patient outcomes (*Access to Health Services - Healthy People 2030,* n.d.; Anesi & Kerlin, 2021). This may affect the control of care, and consequently the work environment.

Additionally, the economic crisis has impacted the ability of patients to pay for services. The study findings indicate that both subsidized and non-subsidized centers were able to exempt patients from payments when they were unable to afford the cost. This aligns with the principle of equity in healthcare, ensuring that financial barriers do not prevent individuals from accessing essential services.

The economic situation in Lebanon has significantly affected the financial sustainability of PHCCs, leading to numerous financial challenges. These challenges include covering operational expenses, such as salaries and the high cost of fuel, which is necessary for maintaining essential services. The findings showed that HCPs face financial strain and difficulties in meeting expenses. High expenses in PHCCs can lead to a loss of control of care. The study findings also highlight the role of local support in helping some centers control their expenses.

Finally, the work environment is also affected because of the control construct, where HCPs face difficulties while providing care due to the shortage of medications, even if the supplies are somehow adequate. They were also encountering challenges

with the availability of services and coverage. However, they managed this through referrals even if they lacked the necessary coverage for the service. Lastly, the findings show that the multiple crises increased the cost, while many managed it by demanding local support.

c. Fairness

The work environment of HCPs was changed from the fairness aspect, where there were different perceptions.

Workload Distribution. The perception of HCPs regarding the uneven distribution of workload due to staff shortage is a common concern in healthcare settings. The findings showed that some HCPs perceive unfair work distribution due to insufficient staffing levels. This has a significant impact on workload distribution and fairness in the workplace. Insufficient staffing levels can lead to increased work demands and an overload of individual employees, resulting in stress, burnout, and health problems. Understaffing can also limit the ability to serve customers (*Understaffing Issues in the Workplace*, 2017). The literature also emphasizes the importance of adequate nursing staff. It has been found also that nurse staffing cuts to save money were associated with higher patient mortality and lower patient outcomes (Aiken et al., 2014). The principle that HCPs must have sufficient nursing staff on duty to provide care safely and effectively is enshrined in various guidelines and regulations influencing the National Health Service (NHS) in the UK (Ball & Griffiths, 2022). Thus, maintaining appropriate staffing levels is important to have equitable workload distribution, and ensure a fair and safe work environment (*Staffing Levels & Workload*, 2022).

The finding also suggests that HCPs attempted to mitigate workload challenges by dividing tasks among themselves, despite the unfair workload distribution. This approach reflects teamwork and a cooperative effort to ensure efficient completion of work and avoid carrying over unfinished tasks to the next day. Effective teamwork and collaboration can create a supportive work environment, which can lead to more efficient and effective patient-centered healthcare delivery (Babiker et al., 2014). By dividing tasks and assisting each other, HCPs can leverage their collective skills and knowledge, enabling them to complete their work more efficiently.

Compensation. The interviews reveal that some centers provide fair salaries to their HCPs, particularly those that receive subsidies on a project basis. In contrast, unsubsidized centers often struggle to compensate their staff adequately. The issue of delayed or non-payment of salaries was also found in the interviews further compounding the challenges faced by HCPs. Furthermore, the lack of transparency and knowledge about the compensation of fellow HCPs was revealed, where HCPs were unaware of what their colleagues were earning. The interviews also shed light on the challenges faced by centers affiliated with INGOs. While these centers may receive assistance for the services they provide, they often do not receive dedicated additional support for salaries. This placed a burden on the centers to rely on payments received for services, which may not always be sufficient to adequately compensate their staff. This lack of fair and dedicated financial support for salaries contributed to the financial strain experienced by HCPs.

According to the literature, following multiple crises, the hospitals and health centers were unable to pay the salaries of their staff (Devi, 2020), and the salaries of nurses have been reduced despite their extreme efforts to serve patients in Lebanon

(Hage, 2023). Also, physicians had a 60 % drop in their income and were paid six months to a year after they operated (English, 2020). The discrepancies in compensation can lead to disparities in the quality and availability of healthcare services provided. HCPs who receive higher salaries may be more motivated and satisfied in their roles, which can positively impact their performance and the overall quality of care delivered. Higher compensation would have a profound impact on the well-being and financial stability of HCPs. Furthermore, improved compensation leads to greater staff retention, reduced turnover rates, and enhanced opportunities for recruitment (*New report shows how care workers are undervalued and deserve higher wages*, 2021). On the other hand, HCPs who feel under-compensated may experience low morale, job dissatisfaction, and a potential decrease in their commitment to their work. It has been reported that 56% of employees say their low salary has a significant impact on their stress levels (Liu, 2021). The uncertainty within the work environment in terms of shortages, and payment due to multiple crises made over 3500 nurses abandon their profession (Hage, 2023), and an increasing number of HCPs who left Lebanon were doctors and surgeons, many at the top of their profession (Abdallah, 2020).

Contract Challenges. The findings highlighted the absence of fixed work contracts for some HCPs, particularly nurses. HCPs mentioned working on a temporary project basis without any formal contracts or job security. This lack of fairness and stability, and the absence of benefits such as social security and insurance can create uncertainty and vulnerability for HCPs.

The multiple crises affected employment in general in Lebanon, 46.5% of eligible employed individuals did not have a work contract *(Mounting challenges have a dire effect on Lebanon's most vulnerable workers*, 2021). The significance of work

contracts in the healthcare sector has been widely discussed in the literature. Clear employment contracts were found to be positively associated with job satisfaction and professional commitment among nurses (Benach & Muntaner, 2007), and consequently the work environment of HCPs. Also, job satisfaction was significantly higher among HCPs with permanent contracts compared to those with temporary contracts (Bhattacharya & Ray, 2021). Moreover, job insecurity and precarious work were associated with negative mental health outcomes, including anxiety, depression, and stress (Irvine & Rose, 2022).

The payment challenges faced by HCPs have implications for the quality of care provided as it was mentioned in the interviews. The interviews reveal concerns about the availability of physicians and the negative impact of inadequate compensation on the quality of healthcare services. Physicians express their frustration at the lack of proper remuneration, which affects their motivation and willingness to provide extensive care. The strain of heavy workloads combined with low compensation can lead to decreased interaction time with patients and compromised quality of care.

Research studies have examined the relationship between HCP payment and quality of care, which aligns with the above findings. HCPs with good payment can have better job satisfaction, and motivation, which can improve the delivery and quality of care. Performance-based payment can increase the motivation of HCPs and the quantity of health services delivered (Singh et al., 2015), also it can motivate HCPs to improve the quality of care they provide. This is because it rewards HCPs for achieving certain quality targets (Mannion& Davies, 2008). A systematic review by Jia et al. (2021) found that payment mechanisms that align financial incentives with quality goals can lead to improved healthcare outcomes and patient satisfaction.

Finally, the "fairness" construct in the work environment was affected, because findings show that the HCPs were facing issues with unfair workload distribution, however, they tried to minimize it by helping each other.

d. Value

Value the work they do without discrimination. The findings indicate that HCPs highly value their work and are motivated by a genuine desire to serve others and improve patient well-being despite the distorted work environment mentioned above. They have intrinsic motivation, a sense of dedication, and passion for their profession which contribute to a positive work environment and patient-centered care.

Numerous studies highlighted the importance of intrinsic motivation and a sense of purpose in HCPs. Intrinsic motivation comes from value and a feeling of joy while performing a certain task (Berdud et al., 2016). When HCPs value their work, they are more likely to demonstrate higher job engagement and commitment (Zeng et al., 2022), which can positively impact patient outcomes and overall healthcare quality.

Furthermore, valuing their work without discrimination reflects a commitment to equitable and patient-centered care. The quote from NU06-01 emphasizes the importance of serving all patients without discrimination, ensuring that healthcare services are accessible and provided with respect and compassion. Healthcare organizations should foster a culture that values and recognizes the contributions of HCPs.

Feeling What They Do is Not Enough. The finding that HCPs often express a sense of inadequacy in the care they provide indicates their commitment to comprehensive care and drive to meet all patient needs and expectations. This sentiment

reflects the value of their work and desire to provide the highest level of care possible. Despite the workload and changes in the work environment, HCPs strive to deliver holistic care that extends beyond medical interventions. They recognize that addressing patients' emotional, social, and educational needs is crucial for comprehensive care and improved health outcomes. The quote from NU03-02 highlights the belief that HCPs should provide support and assistance in various ways beyond medication.

The previous studies do not support the above. For example, Kwame & Petrucka (2021) stated that external factors such as heavy workloads, limited time, inadequate compensation, and staffing shortages can contribute to nurses experiencing feelings of despair, emotional detachment, and apathy towards their profession. These negative emotions can have detrimental effects on their self-esteem and overall self-perception, ultimately impacting the quality of nurse-patient interactions (Kwame & Petrucka, 2021). Hence, it implies that HCPs' value for their work can be influenced by external circumstances such as workload and compensation, which was not the case among HCPs in PHCCs.

Finally, the findings show that the value construct of the work environment is not affected, because the HCPs value what they do without discrimination, and they even feel that their efforts are not enough.

e. Reward

Rewarding Work. The findings from the study highlight that HCPs find their work rewarding, particularly when they receive positive feedback, expressions of gratitude, or positive outcomes from satisfied patients. When patients express their gratitude through prayers or kind words reinforces the sense of purpose and fulfillment

that HCPs derive from their work, thus making it more rewarding. This was further supported by research, stating that positive patient feedback and expressions of appreciation contribute to HCPs' job satisfaction and well-being (Adams & Adams, 2023).

Unrewarding Work and Being Humiliated. The study also highlights instances where HCPs face humiliation and negative experiences from patients. The reported incidents include patients expressing frustration, raising their voices, and engaging in arguments due to various reasons such as unavailability of medications, long waiting times, or dissatisfaction with the care process. These experiences can be emotionally challenging for HCPs and have a significant impact on their well-being and job satisfaction, which in turn can make the work less rewarding.

After the multiple crises, the Lebanese population is becoming more anxious, stressed, and aggressive (*Mental Health in Lebanon: Challenges and Strategies for Coping*, 2023), which can lead to more acts of violence against HCPs in PHCCs. Research indicates that HCPs are susceptible to experiencing patient-related anxiety, fear, guilt, sleep disturbances, burnout, poor self-related health, and dissatisfaction toward work, particularly when they face disrespectful, humiliating, and aggressive behaviors (Pekurinen et al, 2017), which can lead to a less rewarding work environment.

Finally, the reward construct of the work environment differs from one HCP to the other, where some feel that their work is rewarding because of the positive feedback they receive, while some are getting humiliations by patients because of the multiple crises the Lebanese population is living in.

f. Interprofessional Collaboration

Model of Interprofessional Collaboration. The study findings indicate that despite the challenges faced by HCPs in the work environment, they generally have a positive model of interprofessional collaboration. HCPs in the work environment perceive their working relationships as a "family" and express mutual respect for one another. This family-like culture fostered a supportive and cohesive environment within the healthcare team.

The literature mentioned that extensive pressure in work can affect interprofessional collaboration. However, many studies also emphasized the importance of interprofessional collaboration in improving the work environment. It often involves quality relationships and interaction, with two-way communication, which results in a higher level of job satisfaction, and reduced turnover intention in nurses (Labrague et al., 2022). Also, it helps to prevent medication errors, improve the patient experience, and deliver better patient outcomes, all of which can reduce healthcare costs (O'Connor, 2023).

Challenges to Interprofessional Collaboration. Although the majority of HCPs in the study reported good interprofessional relationships and collaboration, there was one nurse who expressed challenges in coordinating with physicians. Challenges to interprofessional collaboration can arise due to various factors, including lack of time and training, lack of clear roles, fears relating to professional identity, and poor communication (Rawlinson et al., 2021). Since the PHCCs were facing a workload after the multiple crises, the time to practice effective interprofessional collaboration may be hindered.

Finally, the interprofessional collaboration construct of the work environment differs between HCPs. Some believed that despite the multiple crises, their interprofessional collaboration remained the same, while others think that it is difficult to maintain a good collaboration.

g. Manager's Perspective

The findings above highlight several challenges faced by managers in the work environment of PHCCs.

Coping. It has been revealed during the interviews that the managers in PHCCs were under significant pressure due to high expenses and the expectation to support the community's needs with low fees. This situation created a financial burden on the PHCCs, especially considering the rising costs of medications and operating expenses. Previously, PHCCs were managed and supported only by the MOPH and charitable organizations to serve the needs of economically disadvantaged individuals who are unable to afford private outpatient medical services (Isma'eel, 2021). Lately, although many PHCCs received support from INGOs after multiple crises, managers mentioned that they are still over-pressured because of high operating expenses and consultations being nearly free of charge. The INGOs mainly supported services and managers used to pay from that budget the high operating costs, such as the cost of power. According to Rose & Iskandarani in 2021, since the government removed subsidies, the cost of diesel, which is utilized to power private generators in the absence of public electricity in Lebanon, has surged by a factor of six over the past three months. Diesel was devoid of any subsidies and the payment has to be done in cash US dollars (Rose & Iskandarani, 2021).

It has been reported in the literature that Lebanon has been facing a complex and multifaceted healthcare crisis, and hospitals were struggling financially due to difficulties in purchasing their needs, inability to collect payments from insurance companies, decreased government funds, and the economic crisis also affected the patient's capacity to pay for medical care (Sanayeh et al., 2023; Najem, 2022). All these factors made patients seek medical help from PHCCs at the start of multiple crises, which were already known to serve economically disadvantaged people. These people had high hopes and expectations that PHCCs will provide all the needed services, care, and medication, which posed great pressure on managers as was revealed in the findings above. All these indicate a gap between the expectations placed on the PHCCs and the available resources in terms of finances.

This was further supported by literature that globally managers are also facing challenges to balance economic disparities and access to healthcare, rising healthcare costs, and the shift in patient expectations while improving the quality of care. After the COVID-19 pandemic and global financial crisis, many people around the world do not have access to healthcare due to economic disparities. Healthcare managers try to explore opportunities to help underrepresented communities in public health forums, encourage physicians to practice in remote areas, and introduce policies that reduce barriers and increase access to healthcare (Cmalvikce, 2023). Also, in US hospitals, managing healthcare costs has taken on new urgency, and healthcare managers have to find ways to reduce costs while maintaining quality (Six Challenges to delivering quality healthcare, 2022). Lastly, with all the technological advancements, and patient engagement in healthcare, patients' expectations have been changed, and managers are trying to adapt to these (Jones, 2021).

In coping with these challenges, managers in PHCCs are actively seeking additional funds and support from various sources. They resort to begging and requesting help from associations and individuals in the community to gather necessary supplies and resources. They also approach funders who might be willing to support specific clinic needs. However, the managers express their struggles in obtaining adequate support and mention that they are unable to fulfill their PHC duties as expected. This suggests a strained work environment where managers are constantly seeking external resources to bridge the financial gap.

Negotiation Challenges. The managers face difficulties related to maladaptive mechanisms, particularly concerning physician payments. They mention challenges in negotiating financial matters with physicians, who may demand higher payments due to existing payment structures. The consultation fees collected are insufficient to cover the physician payments, resulting in a financial imbalance for the PHCCs. This creates a dilemma for managers as they strive to retain qualified physicians within their teams while managing limited financial resources.

Additionally, managers express concerns about the potential loss of partnerships, particularly with INGOs, if the needs of the community are not adequately met. This apprehension reflects the delicate balance managers must maintain to secure ongoing support for their PHCCs. Failure to address financial issues may lead to the withdrawal of essential partnerships, further straining the work environment and limiting the resources available.

Fiscal sustainability challenges of the PHCCs. The findings underscore the profound impact of the economic crisis in Lebanon on the fiscal stability of healthcare centers, with HCPs, particularly managers, facing the brunt of the consequences. In this

context, healthcare managers are compelled to adopt alternative strategies to sustain the operations of their facilities amidst daunting challenges. This aligns with existing literature that emphasizes the vulnerability of healthcare systems during economic crises, especially in resource-constrained settings. The financial strain described, including the high cost of diesel and difficulties in securing foreign currency for essential supplies, mirrors broader issues of resource scarcity and inflation affecting healthcare services in similar contexts.

The innovative approach of community-driven financial support, where local individuals contribute funds to keep healthcare centers operational, demonstrates resilience and adaptability in the face of adversity. This aligns with research highlighting the importance of community engagement and grassroots efforts in maintaining healthcare access during crises. It can support buy-in and sustainability of primary healthcare and promote person-centered services (Gilmore et al., 2020). Temporarily, this strategy can help health managers find economic and financial stability in healthcare during times of multiple crises in Lebanon.

Doing their best. Despite the challenges faced, managers demonstrate an unwavering determination to persevere and continue serving their communities. They acknowledge the vital role PHCCs play in providing essential healthcare services and express a commitment to upholding high standards of care. Managers understand the importance of staff training and development, as evidenced by their proactive measures in sending nurses and staff to conferences and workshops.

This commitment to maintaining services and striving for sustainability reflects the dedication of managers to create a positive work environment. They recognize the need for continued growth and improvement, even in the face of financial constraints.

By prioritizing staff training and development, managers contribute to fostering a supportive and learning-oriented work environment, which can ultimately benefit the overall quality of care provided at the PHCCs. Dedicated and committed managers with strong management skills are needed to provide a high standard of care These dedicated managers, seeking high-quality care, inspire their team members through different ways like training to strive for success, and creating a more productive work environment (Shields, 2021).

Finally, the work environment of managers has been changed due to multiple crises. Managers were trying to cope with different strategies, they were facing difficulties because of maladaptive mechanisms with physician payments, and they were trying to do their best to keep the PHCCs functioning.

3. Paid and Unpaid Status in Work Environment and Community

a. In the Workplace

Lack of compensation for the paid work. The findings highlighted in the interviews shed light on a critical issue within the healthcare sector, where HCPs are experiencing significant challenges related to their compensation and working conditions. The situation described, where some HCPs are not receiving their due salaries and even resorting to working for free or paying out of their own pockets, underscores the dire circumstances facing healthcare workers. This aligns with previous research on healthcare workforce issues, such as the growing problem of healthcare worker burnout and dissatisfaction.

Studies have shown that inadequate compensation and excessive workload can lead to burnout and negatively impact the quality of patient care (Khamisa et al., 2013).

Additionally, the reliance on unpaid overtime and taking work home reflects the dedication and resilience of healthcare professionals but also highlights systemic failures within the healthcare system. These findings underscore the urgent need for policy reforms and greater investment in healthcare infrastructure to ensure fair compensation and improved working conditions for HCPs, ultimately benefiting both healthcare workers and the patients they serve.

Transportation Challenges. The economic crisis in Lebanon has significantly affected the transportation capabilities of HCPs, particularly due to the increased petrol prices. The interviews highlighted the concerns expressed by nurses and physicians regarding the financial burden of commuting to PHCCs. HCPs stated that their salaries barely cover the costs of fuel, and in some cases, they have had to pay for petrol from their savings. This situation posed a significant challenge as it not only added financial strain on HCPs but also affected their ability to travel to work effectively.

After multiple crises, the Lebanese government removed the subsidy on petrol, and the price has increased, where *filling up the gasoline tank in a standard vehicle in Lebanon costs more than the monthly minimum wage (*Chehayeb, 2021). Usually, transportation barriers are an important barrier to healthcare access (Syed et al., 2013), where HCPs find it difficult to arrive at health centers and provide care to patients. This was the case in PHCCs, which posed a huge challenge to HCPs with all the other challenges in their work environment.

b. <u>In the Community</u>

Going Extra Mile. The dedication and willingness of HCPs to provide unpaid work, such as offering assistance over the phone, conducting free consultations, and

making home visits, demonstrates their commitment to serving their communities. While these actions are driven by compassion and a desire to help, it is essential to recognize the potential challenges and implications associated with such practices.

According to the literature, women worldwide dedicate a significant portion of their time to performing unpaid work, accounting for approximately 75% of the total workload, which amounts to a staggering 11 billion hours per day. On a global scale, women engage in three times more caregiving and household chores compared to men. This trend is particularly pronounced in low and middle-income countries, where gender differences are significant and women allocate more time to unpaid work compared to their counterparts in high-income countries. Nevertheless, disparities based on income levels persist within individual countries as well (Seedat & Rondon, 2021). In addition, unpaid care work is often perceived as low value during the COVID-19 pandemic, and time spent on care and domestic work has increased for both men and women, but the increase and intensity of this work have been far greater for women (Seedat & Rondon, 2021). Also, Drake (2022) mentioned that gender inequality in the workplace is still present, and women get more unpaid work regardless of geographical location and time setting, thus they are associated with reduced mental health (Drake, 2022).

However, the provision of unpaid services and excessive availability can have negative consequences for the well-being and work-life balance of HCPs. A review found that even a one-hour increase in unpaid work per week can noticeably impact mental health. Additionally, some of the studies reviewed reported that for every 10-hour increase in unpaid labor time, there was a corresponding 0.2 to 0.4-point increase in depression scores (Drake, 2022). 11,516 registered nurses showed that adverse events

and errors (such as medication errors and needlestick injuries) were directly associated with unpaid overtime (Olds & Clake, 2010). Also, the risk of mental illness among women engaged in unpaid work rose during the crisis with exposure to greater and more stressful workloads (Seedat & Rondon, 2021). The willingness to be available at all hours and engage in unpaid work can lead to emotional exhaustion and stress among HCPs (Fiabane et al., 2021). When HCPs fail to establish boundaries frequently and have prolonged exposure to work stressors are associated with mental health problems such as burnout *(Setting Boundaries as a Health Care Worker*, n.d.).

Despite the negative effects on HCPs, their availability of outside working hours, particularly through phone consultations, can contribute to improved access to healthcare services for individuals in need. Telehealth or phone consultations is the use of digital information and communication technologies to access healthcare services remotely and provide care to patients (*What is telehealth?*, 2023). Also, patients reported that remote consultations are an effective complement to physical consultations, and their perception of telephone consultations is strongly positive (Vodička & Zelko, 2022). In Lebanon, the findings reveal that HCPs are trying to help patients through unpaid work, especially the midst of the economic crisis.

Not Willing to Do Extra. The findings showed that while many HCPs demonstrate a strong willingness to provide unpaid work after multiple crises, there are individuals who choose not to share their phone numbers or engage in additional responsibilities beyond their official duties. This decision to protect their time and establish boundaries is understandable, given the potential risks associated with excessive availability and the need to prioritize self-care, as was mentioned above.

Setting boundaries and protecting personal time are important aspects of maintaining well-being and preventing burnout among HCPs. A study found that employee work-life balance increases employee job performance by positively influencing psychological well-being, and job satisfaction mediates the relationship between employee work-life balance, job performance, and overall well-being (Susanto et al., 2022). By acknowledging their limitations and focusing on self-care, HCPs can ensure they are in the best position to provide quality care when they are on duty, especially with the challenges faced during multiple crises.

4. Health

a. Mental

Mental Pressure. The findings from the accounts of HCPs highlight the significant mental pressure they experience in their work environment with all the challenges mentioned above. The overwhelming nature of their work, coupled with the challenges posed by multiple crises contributed to feelings of stress, sadness, and even tears. These emotional burdens were further intensified by the empathetic connection that HCPs feel toward their patients' difficulties. Also, the experiences shared by HCPs highlight the profound mental and emotional impact they face while providing care to patients. The nurse mentioning the risk of continuity reflects the apprehension and uncertainty that can arise during times of crisis or rapid changes in healthcare systems. All these accounts reveal the burden they carry, not only in their professional lives but also in their personal relationships and overall well-being. The nurse who mentioned being unable to take care of her husband and kids due to the mental pressure she experiences reflects the effect of working in a high-stress environment on one's personal

life. Moreover, the emotional toll on HCPs reflects their dedication and compassion toward providing quality care.

Research supports these findings, emphasizing the prevalence of mental pressure and distress among HCPs globally especially after the COVID-19 pandemic. It has been reported that more than half of HCPs report symptoms of burnout, and many are contending with insomnia, depression, anxiety, and post-traumatic stress because of mental pressure (Murphy, 2022). The demanding nature of HCPs, especially in crises and resource shortages, can contribute to the mental pressure experienced by HCPs. The emotional labor involved in managing patient interactions includes the need for patience, effective communication, and maintaining a positive demeanor with all the mental pressure, which adds a layer of pressure (Vinson & Underman, 2020). In Lebanon, the nurses used to face emotional exhaustion and mental health problems, because of pressure in their work environment (Elbejjani et al., 2020).

Moreover, HCPs mentioned the necessity of keeping a smile at work and accepting hurtful remarks, it is crucial to provide avenues for emotional expression and support. Research suggests that acknowledging and addressing emotional struggles can contribute to better mental well-being (Ford et al., 2018). Creating a culture that promotes open communication, empathy, and psychological support can help HCPs cope with the mental pressure they face.

The demands of the job, coupled with the emotional weight of caring for patients, can lead to exhaustion, compassioned fatigue, and a diminished ability to attend to one's own needs and family responsibilities (Cavanagh et al., 2020). Moreover, the nurse who recounted encounters with patients unexpectedly breaking down in tears sheds light on the hidden struggles individuals may face, even when they appear

"normal" on the surface, and how it affects the HCP's mental well-being. Also, uncertainty about the future can contribute to additional stress and anxiety among HCPs, potentially exacerbating the already challenging work environment.

Furthermore, the mental health needs expressed by HCPs underscore the importance of prioritizing their well-being. They emphasize the need for support systems, someone to listen to their concerns, and relaxation sessions. Verbalizing their needs related to mental health also reveals their mental pressure. These needs align with research that emphasizes the significance of mental health support for HCPs. It is essential to provide HCPs with access to counseling services, peer support groups, and mental health workshops to address their mental health needs effectively (Søvold et al., 2021).

b. Physical

Fatigue. The experiences shared by HCPs about physical fatigue reflect the demanding and abusive nature of their work environment and its effect on their overall well-being. The quotes indicate that HCPs are experiencing fatigue due to factors such as long working hours, high workloads, and the stressful situations they are facing.

The physical fatigue reported by HCPs aligns with existing research that highlights the prevalence of fatigue among HCPs during COVID-19. The prevalence of fatigue among nurses was 62.0%, and insomnia, sleepiness, depression, and occupational stress were significantly associated with fatigue (Lee & Choi, 2022). These can jeopardize their health and safety, such as burnout, as well as committing patient care errors (CDC, 2021). However, Lebanon has additional circumstances that

can further intensify the above results with the conditions in the work environment the HCPs are practicing care.

Important to note that HCPs in PHCCs might not have additional physical burdens other than fatigue, because of the nature of their job. While hospitals face high musculoskeletal diseases, because of high levels of exertion compounded with many work environment indicators (Elbejjani et al., 2020).

B. Recommendations

We provided evidence-based suggestions for healthcare managers and policymakers to minimize the negative effects of multiple crises on the work environment, unpaid status, and health of HCPs in Lebanese PHCCs.

1. Work environment

To address issues related to the work environment and improve the work conditions for HCPs, mainly the workload, control, and fairness constructs, comprehensive measures are necessary.

Workload: Effective strategies should be implemented to manage workload, such as optimizing staffing levels, improving resource allocation, and establishing efficient patient flow systems ("Keeping Patients Safe: Transforming the Work Environment of Nurses," 2005). Regarding the shortage of human resources, the centers can train lay people to voluntarily support the center, for example, by having someone trained to manage the appointments as short-term interventions. The HCPs during interviews mentioned a few recommendations, one of which was the importance of having more available physicians to meet the increased needs of patients, through a

group of physicians who can pass by several PHCCs in a specific region, and have centers that send medical students to work voluntarily. This activity can improve the availability of physicians in centers who are not able to support the staff financially and improve access to healthcare in underprivileged communities (Kim, 2020).

Control: To control the availability of services and cost, the PHCCs must have further affiliations with INGOs, which support them with the needed goods and services (Campbel et al., 2019). The HCPs mentioned the importance of having more staff and working with different shifts to help a huge number of the population, and this can be possible through external and local support, and affiliation with INGOs. Additionally, efforts should be made to address the medication shortage through improved supply chain management and collaborations with relevant stakeholders (Dooley, 2020), including MoPH and INGOs.

Fairness: The HCPs recommended having clear job descriptions to fairly distribute the workload. Usually, the official document mentioning the job description of each individual can provide a clear understanding of the roles and responsibilities and through this, there will be fair and logical distribution of the work (Heindel, 2023).

2. Paid, Unpaid Work, Food Security, and the ability to cover basic living needs

Addressing the challenges related to paid and unpaid work conditions, as well as ensuring food security and the ability to cover basic needs, requires also a multi-faceted approach. Regarding the *paid work environment and food security and the ability to cover basic living needs,* they can be addressed through fair compensation and additional benefits to the HCPs, and through further affiliations with INGOs to cover the salaries of the staff. The centers need to adjust the salaries to align with industry

standards and the coverage of basic needs (*JOSSO 2 by Atricore*, n.d.), which was also recommended by HCPs during interviews. Regarding *unpaid work,* it is important to identify and address unpaid work tasks that HCPs are frequently engaged in. This can involve redistributing responsibilities, implementing systems to track and compensate for additional work performed outside of regular hours, and ensuring that the value of these tasks is recognized and appropriately compensated (Alonso et al., 2019).

3. Health

When the above components are improved, the health, especially the mental, of HCPs can be improved in return. Important to note that, creating a positive work environment also involves empowering HCPs by providing opportunities for autonomy, involving them in decision-making processes, and fostering a supportive organizational culture (Maassen et al., 2021). Moreover, offering resources for stress management, promoting work-life balance, and providing avenues for professional development is essential to enhance the overall well-being of the healthcare workforce (*What Increases Employee Wellbeing?*, n.d.). By implementing comprehensive strategies, it is possible to improve the work environment and consequently, the health of HCPs to retain and attract them, and ultimately enhance the quality of care provided.

C. Strengths and limitations

One of the strengths of this study is: that the person who worked on the data analysis has experience in a PHCC during multiple crises, and can well understand the challenges that HCPs are passing through. Additionally, a clear description of the work environment of PHCCs is provided, which will help grab the attention of staff/policy

makers in administrative positions to improve the conditions of HCPs. Moreover, its qualitative approach helps to have a better description of the work environment and conditions by HCP and related factors targeting more research on this. Finally, reflexivity is a strength, where a group of researchers were part of the process, and their experiences, and beliefs influenced the research process using the Maslach tool.

On the other hand, the study has many limitations which are reporting on a small sample qualitative but there is a national study targeting the same objectives. Second, transferability will be a limitation, because Lebanon has a special situation that can be associated with the work environment, and the study may not be applied to other countries.

CHAPTER V

CONCLUSION

Finally, the work environment of HCPs has undergone significant changes and challenges with multiple crises amplifying the existing difficulties. The findings show that the multiple crises have increased the workload, due to factors such as the influx of patients, high demand for medications, never ignoring patients, shortage of human resources, huge INGO requirements, extensive data entry, problems with patients, and time limitations, which have affected the role of HCPs in follow-up and consequently the quality of care in PHCCs. In addition, the multiple crises influenced the lack of control of HCPs over the availability of medications, services, and cost, and many resorted to different coping mechanisms such as asking for local support. Moreover, there was an unfair distribution of workload, however, the staff used to help each other to minimize this. All these contributed to a highly stressful and demanding work environment for HCPs, despite the findings showing good interprofessional relationships, rewards, and value. Also, the findings showed how managers faced difficulties to balance the quality of care and HCPs' needs amid multiple crises.

Furthermore, the economic crisis has directly impacted the payment structures for HCPs, where some had fair salaries while others had low compensation. Also, it became increasingly difficult for them to achieve food security and cover their basic needs due to inadequate compensation. With all these, they were often forced to work long hours, sacrificing their well-being, and often engaging in unpaid work that went unnoticed and unappreciated. Consequently, the combination of these factors has resulted in an environment where many HCPs find themselves overwhelmed and

stretched to their limits. They had a heavy burden both physically and mentally, as they strived to provide quality care under challenging circumstances.

By implementing targeted strategies, such as workload management, staffing optimization, ensuring fair compensation, and recognizing and compensating for unpaid work, it is possible to mitigate the negative effects of these challenges on HCPs. This study proposes the need for intervention studies that can provide valuable insights and recommendations. These interventions should aim to tackle the challenges faced by HCPs and improve their work environment. The recommendations from this study will help guide the development of evidence-based interventions that address the specific needs of HCPs in the face of the current crises. By proactively addressing these challenges, healthcare organizations and policymakers can foster a more supportive and sustainable work environment for HCPs, ultimately leading to improved job satisfaction, enhanced well-being, and better patient care outcomes.

APPENDIX I

INVITATION EMAIL

Invitation to Participate in a Research Study
This notice is for AUB Approved Research Study
for Gladys Honein
gh30@aub.edu.lb
It is not an Official Message from AUB

Invitation to Participate in a Research Study

This notice is for an AUB-IRB Approved Research Study

for Dr.Gladys Honein at AUB.

gh30@aub.edu.lb
Building: Hariri New School of Nursing/Floor: 5/Room: 520

It is not an Official Message from AUB

I am inviting you to participate in a qualitative research study about "Facilitators and barriers accesSing healTh caRE Services for adults with chronic diSeases (STRESS) in Lebanon: A qualitative study".

You will be asked to take part in a face-to-face interview in order to explore the facilitators and barriers accessing health care services among adults with chronic diseases living in eight different communities across Lebanon from the perspectives of primary health care providers and adults with chronic diseases.
You are invited because we are targeting health managers, nurses, and physicians working in the selected eight different Primary Healthcare Centers (PHCs).
The estimated time to complete the interview is approximately 30 minutes.
The research is conducted face-to-face at the different PHCs in the selected eight Lebanese regions.

APPENDIX II

CONSENT FORM

Informed Consent
American University of Beirut
Faculty of Medicine/ Hariri School of Nursing
Title: Facilitators and barriers acces**S**ing heal**T**h ca**RE** **S**ervices for adults with chronic di**S**eases **(STRESS)** in Lebanon: A qualitative study

I am a researcher in the School of Nursing at the American University of Beirut. I am here to conduct a study that will explore the enablers and challenges in accessing health care services for older adults with chronic diseases in Lebanon.
Before we begin, I would like to take a minute to explain why I am inviting you to participate and what I will be doing with the information you provide to me. Please stop me at any time if you have any questions. After I have told you a bit more about my project, you can decide whether or not you would like to participate.

What is this research study about?

The purpose of this study is to qualitatively explore the facilitators and barriers accessing health care services among adults with chronic diseases living in eight different communities across Lebanon from the perspectives of individuals with chronic diseases and from their primary health care providers. Knowledge from this study will help researchers identify those factors in order to inform future interventions to empower PHCs.
If you wish to participate, you will be asked to answer a set of questions to understand the facilitators and barriers accessing health care services for older adults with chronic diseases in eight different Lebanese regions. The interview will be conducted in a private room where discussions can take place away from any interference. It is expected to take about 30 minutes. A sample of 20 to 25 older adults with chronic diseases who come to the selected Primary Healthcare Centers (PHCs) will be recruited for this study in addition to 8 health managers and 24 health care providers.

What are the risks and benefits of participating in the study?

Your participation in this study does not involve any physical or emotional risk to you beyond the risks of daily life. If at any time and for any reason, you would prefer not to answer any questions, please feel free not to. If you do not wish to answer any particular question in the interview, you may skip the question by either not answering or saying "skip" during the interview.
If at any time you would like to stop participating, please tell me. We can take a break,

stop and continue at a later date, or stop altogether. You will not be penalized in any way for deciding to stop participation at any time. You have the right to refuse to participate, withdraw your consent, or discontinue participation at any time during or after the interview and for any reason. Your decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way will affect your relationship with the American University of Beirut. Participation is on a purely voluntary basis. You will be asked to answer few structured and open – ended questions. They will be short and concise and will not cause any harm or discomfort.

You will receive a small financial incentive from participating in this research study to demonstrate our appreciation for your time.

A copy of this consent form will be left with you.

Confidentiality

All data collected are treated as confidential information. Your name or any identifiers will not be included in my research analysis.

I would like to tape record this interview so as to make sure that I remember accurately all the information you provide. I will keep these tapes in a password protected document in the primary investigator's office and will only be used by the research team. If you refuse to be tape-recorded, hand written notes will be taken instead. Only the aggregated data from the interviews (which will have no identifiers) will be shared with other investigators. All codes and transcribed data will be kept in the locked file drawer or in a double password protected computer that is kept secure. I may wish to quote from this interview either in the presentations or articles resulting from this work. Your privacy will be maintained in all published and written data resulting from this study. Your name or other identifying information will not be used in our reports or published papers. A made-up name will be used in order to protect your identity, unless you specifically request that you be identified by your true name. You may still participate in the interview if you do not want to be taped.
Five years after the end of the research study, the taped interviews will be destroyed by the research team using mean approved by the institution. I will keep the aggregated research data on my computer files for future use in other research studies.
Data access is limited to the Principal Investigator and researchers working directly on this study. It will also be monitored and may be audited by the IRB while assuring confidentiality.

Contact Information

If you have any questions or concerns about the research you may contact Dr. Gladys Honein at the below information:

Email: gh30@aub.edu.lb

If you have any questions, concerns or complains about your rights as a participant in this research, you can contact the *Social & Behavioral Sciences Institutional Review Board office* at AUB:

Telephone number: 0135000 extension 5445. Email: irb@aub.edu.lb

Participant

I have read and understand the above information. I agree to participate in the research study.

Participant Name **Principal investigator's Name**

---------- ----------

Participant Signature **Principal investigator's Signature**

---------- ----------

Date

----------Part II: Certificate of Consent

I have been invited to participate in research about "Facilitators and barriers acces**S**ing heal**T**h ca**RE** **S**ervices for adults with chronic di**S**eases **(STRESS)** in Lebanon: A qualitative study.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked, have been answered to my satisfaction.

I consent voluntarily to be a participant in this study. Yes □ No □

I consent voluntarily to have my voice audio recorded Yes □ No □

I consent to quote excerpts from my discussion either in the presentation of results in meetings or publications. Yes □ No □

APPENDIX III

INTERVIEW GUIDE-HEALTH MANAGERS

A- Contextual characteristics:

1- Describe the population of beneficiaries receiving care at the PHC:
   a. In terms of demographic distribution such as age, gender, nationalities and socio-economic status
   b. Describe the community of Lebanese adults (50 and above) receiving care at the center. Socio-economic status: transition during the crisis (from middle to low), the volume of patients evolving overtime.

2- In your opinion, rank the most important priority needs of patients with chronic diseases; Please explain your choice.
   a. Is it about securing shelter (paying rent for non-home owners)
   b. Having power at home
   c. Paying for their children schooling
   d. Transportation to go to work
   e. Health care needs.

3- In your opinion, rank the most important priority health care needs of patients with chronic diseases
   a. Accessing services such as issues with transportation, renewal of medicines, etc..
   b. Availability of services: medications, consultants, laboratory tests..
   c. Affordability matters.

4- From your perspective, how is the PHC trying to facilitate meeting those needs?
   a. Describe how the PHC is increasing accessibility to consultation, medications, laboratory tests, counseling etc.. (i.e. recruiting more staff, outreach, collecting medications, etc..)
   b. Describe what are the opportunities that permitted the PHC to offer those services (financing, etc..)

5- From your perspective, how is the PHC is not able to meet those needs?
   a. Describe the weaknesses in the current situation in meeting the needs of those patients
   b. Describe the threats to sustain those services. (lack of funding etc.)

6- As a health manager in a PHC, you obviously value the role of the PHC. If I ask you to provide a sense of how Lebanese beneficiaries are currently perceiving the role/value of the PHC?
   a. Have you ever used personally the PHC?
   b. Do you go to a private clinic?

7- Is there anything else that you would like to add?

APPENDIX IV

INTERVIEW GUIDE-HEALTH CARE PROVIDERS

The following questions will be addressed:

Contextual factors

What is the socio-economic status of beneficiaries of chronic diseases? Were there changes since the crises started? Please explain.

How do you describe the current perception of the PHC by patients?

Availability of services

Describe the range of services offered at your PHC

Describe the different health professionals available at the PHC, what is their availability schedule:

a. Specialties
b. Nurses
c. Receptionist
d. Other health care professionals

- Are there additional health care services being offered currently?
- Are there collaboration with other resources in the community such as NGO, laboratories, etc.?
- Describe your role at the PHC.
    a. How many days
    b. How many patients
    c. How do you get reimbursed?

Financial accessibility

How do beneficiaries pay for their services?

e. Out of pocket? How much? Any challenges?
f. Subsidized? Who is the subsidiary? What does it cover? For how long? Until when this subsidy will remain?

From your perspective, what are the major needs that beneficiaries are facing? Please elaborate on each

a. Out of pocket
b. Securing medication
c. Follow-up on recommendations
d. Others

Quality:

2- What about the care that you provide for your patients?

e. Do you keep a record of services?
    i. Type: electronic or paper?
    ii. How do you use it to monitor your patients?
    iii. How do you use it to measure your performance?

iv. How do you use it to measure patient outcomes?

f. Do you coordinate the care with other health care professionals? How?
g. How often do you do patient education? Empowerment for self-care
h. Do you have a system to follow-up on patients? How? (phone, regular visits, etc...)

2- Are there adequate supplies (i.e. drugs that are not expired and stored properly) that meet relevant standards? Are there guidelines for each of the chronic diseases treated at the center? Are services provided at an acceptable standard of care in alignment with those relevant standards as appropriate?

Outcomes

- Can you give an account the process to facilitate affordability and accessibility to health care needs?

Closing questions

1- Are there important challenges that you would like to share with us that we did not address? Please provide more explanation
2- Is there anything else you would like to add?

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