

Assessment of preparedness for response to COVID-19 by two hospitals in the Gaza Strip

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Abstract

Background: Hospital preparedness enables the healthcare delivery system to save lives during emergencies that surpass the day-to-day capacity of existing response systems. The COVID-19 pandemic negatively affected all aspects of life worldwide, and in the Gaza Strip particularly.

Aims: We assessed the preparedness of 2 hospitals in the Gaza Strip for response to COVID-19.

Methods: An observational, analytical, cross-sectional study was conducted among 160 nurses and physicians between July 2020 and October 2021 at the European Gaza Hospital and the Turkish-Palestinian Friendship Hospital, 2 hospitals dedicated to the reception and care of COVID-19 patients in the Gaza Strip. Data were collected using a structured, self-administered questionnaire and a checklist. The data were analysed using SPSS, version 23. Frequencies and descriptive data were used to assess the variables. Inferential statistics such as ANOVA and t-test were used to determine the significance and differences between the variables. Cronbach's alpha was 0.903.

Results: The majority of the participants were nurses (77.5%) and they showed a high level of knowledge and training regarding the response to COVID-19 pandemic (73.4 %). Their perception of the preparedness of their hospitals in terms of work environment and availability of resources was average (63.6%). Around 70% perceived COVID-19 to have had a negative effect on their personal lives and work.

Conclusion: The preparedness level at the 2 hospitals was unsatisfactory (55.75%). Further research is recommended to assess the level of hospital preparedness from the viewpoint of other healthcare workers.

Keywords: COVID-19, preparedness, response, nurses, physicians, health emergencies, Gaza Strip

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Introduction

Background

In December 2019, a new coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), caused an outbreak that first emerged in Wuhan, Hubei Province, China (1).

The COVID-19 pandemic resulted in critical extra pressure on already weak healthcare systems, leading to impaired health status of affected populations, particularly those affected by recurrent humanitarian disasters. The virus spread to more than 182 countries and territories around the world (2). Countries ought to raise their capabilities for preparedness, alertness and response to the increasing number of new cases of COVID-19. There is no single perfect way to manage the crisis; all countries must, therefore, prepare their healthcare systems to respond effectively. Every country should conduct a precise assessment of the possible risks and carry out substantial, appropriate and timely actions to reduce COVID-19 transmission and its economic and social impacts (3).

The significant inadequacy of personal protective equipment (PPE) in most countries constitutes a major

threat to the continuity of health care services for COVID-19 patients, therefore, it is essential for healthcare workers to have priority access to PPE so they can do their jobs safely and effectively (4).

The Israeli blockade, the internal Palestinian political divide, a chronic power deficit, and shortages of specialized staff, drugs and equipment are all factors affecting the ability of health systems in Gaza Strip to provide services during the pandemic (5).

Healthcare system in Palestine

The main parties providing health services in the Palestinian health system are the Ministry of Health, nongovernmental organizations, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), the military health services and the private sector. The total number of hospitals in Palestine is 83, of which 51 are in the West Bank, including East Jerusalem, and 32 in the Gaza Strip.

The Ministry of Health in the Gaza Strip has 13 hospitals, 16 belong to nongovernmental organizations, 2 to the Ministry of Interior and National Security, and 1 to the private sector. The total number of hospital beds in the Gaza Strip is 2943 (2240 belonging to the Ministry

of Health, 526 to nongovernmental institutions and 177 to the Ministry of Interior and National Security). The Ministry of Health employs 3100 physicians, with 14.6 physicians per 10 000 population. There are 3682 nurses employed by the Ministry of Health, representing 25.1% of the total employees in the Ministry, with 21.2 nurses per 10 000 population. In 2018, 1 402 222 visits were made to emergency departments (6).

During the COVID-19 pandemic, the European Gaza Hospital and the Turkish-Palestinian Friendship Hospital were assigned to care for COVID-19 patients only.

Objectives

The main objective of this study was to assess hospital preparedness in response to the COVID-19 pandemic in the Gaza Strip. Specific objectives were to explore the status of hospitals' preparedness for COVID-19 in the Gaza Strip in terms of: hospital plans and their implementation processes; healthcare workers; equipment and materials; and the influence of COVID-19 on the personal lives and work of health care professionals. We aimed to make recommendations for policy-makers towards improving preparedness in the hospitals.

Methods

Study design

We used an observational, analytical, cross-sectional design to assess the preparedness of 2 hospitals in the Gaza Strip to respond to the COVID-19 pandemic..

Study setting

The study was conducted at the European Gaza Hospital and the Turkish-Palestinian Friendship Hospital, both of which were used for the reception and care of COVID-19 patients only. The Turkish-Palestinian Friendship Hospital was already in existence but was not in operation; it was first opened to deal with COVID-19 cases in November 2020 (7). Data collection was carried out during the period 1 November–31 December 2020. The study participants were nurses and physicians who worked in the 2 hospitals.

Sample size

The estimated sample size was 200 physicians and nurses. The study sample was estimated according to the following formula (8). Sample proportion (*p*) was assumed to be 0.5, which is conservative and gives the largest possible sample size.

$$\text{Sample size} = \frac{z^2 \times p(1-p)}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)} = \frac{1.92^2 \times 0.5(1-0.5)}{1 + \left(\frac{1.92^2 \times 0.5(1-0.5)}{0.05^2 \times 412}\right)} \approx 200$$

where:

N = population size = 412, *e* = margin of error = 0.05, *z* = *z*-score = 1.92, *p* = sample proportion = 0.5.

The participants were selected using convenience sampling. Physicians and nurses working in the two hospitals who were prepared to receive and care for COVID-19 patients were eligible to participate in the study. Exclusion criteria were: volunteers, students, interns and workers in other hospitals which were not prepared to receive and care for COVID-19 patients, and specialists such as radiologists, laboratory technicians, physiotherapists and pharmacists. The data collectors could not contact some of the targeted population who worked in the intensive care units (ICUs) because of the COVID-19 preventive measures imposed in those departments, therefore, the final sample was lower than the calculated size. In all, we had 160 participants out of 412: 36 physicians and 124 nurses (Table 1). There were more nurses because nurses constituted the majority of those providing services to COVID-19 patients. There were 14 partial respondents (2 physicians and 12 nurses, partial response rate 7%) and 26 nonrespondents (4 physicians and 22 nurses, nonresponse rate 13%).

Study instruments

The data were collected using 2 tools. The first was a self-administered questionnaire, structured on a 5-point-Likert-scale where 5 signified the highest agreement and 1 the least agreement. This tool was developed by the researchers in English after reviewing the available literature, then translated into Arabic. The second tool was an observational checklist in the English language, which was adapted from the “Comprehensive hospital preparedness checklist for COVID-19” (9). This tool assessed healthcare providers, key contact points, procurement and stock management, human capacity, facility and materials, training procedures, hand hygiene, PPE and waste management, triage, first contact and prioritization, patient placement and patient flow in the facilities.

Ethical considerations

Ethical codes of conduct were strictly adhered to at all stages of the study, and confidentiality was maintained. Ethical approval was obtained from the Ministry of

Table 1 Distribution of nurses and physicians in the 2 hospitals in the Gaza Strip covered in this study, 2020

Occupation	Turkish-Palestinian Friendship Hospital	European Gaza Hospital	Total
Hospital population			
Nurses	126	218	344
Physicians	30	38	68
Total	156	256	412
Study sample			
Nurses	25	99	124
Physicians	19	17	36
Total	44	116	160

Health and the Helsinki Committee. A letter of approval was obtained from the general directors of the 2 hospitals, and participants signed a consent form to confirm their agreement to participate in the study.

Coordination, monitoring and quality control

A pilot study ($n = 30$) was conducted to test the adequacy of the research questionnaire, determine the time needed to complete it and identify areas of ambiguity. The questionnaire was shared with a panel of experts to assess its clarity and relevance to the objectives of the study. All comments were taken into consideration. The pilot study results were included in the final study results. Reliability was tested using Cronbach's alpha coefficient to determine the reliability and consistency of the survey. Cronbach's alpha for the questionnaire was 0.903.

Data collection

Data on preparedness of the 2 hospitals in response to COVID-19 were collected using the 2 tools described above, a self-administered questionnaire filled out by the participants and a checklist filled out by the researchers. Three trained data collectors were selected from the workers in each hospital. Participants were asked to fill out the questionnaire, which was distributed during their working hours (day, evening and night shifts). Data were collected during the period 1 November–31 December 2020. Each data collector was assigned to collect data during a particular shift; their role was to distribute the questionnaires and answer any of the participants' queries. Access to some areas in the hospitals was restricted, making data collection impossible in those areas.

Statistical analysis

The data were analysed using SPSS, version 23. The frequencies and descriptive data (mean, ranges, percentage, and standard deviations) were used to assess the research variables. Inferential statistics such as analysis of variance (ANOVA) and the t -test were used to determine significance and the differences between variables.

Results

Analysing the questionnaire

The distribution of the study participants from the 2 hospitals is shown in Table 1. Approximately two-thirds of the participants were less than 30 years old (Table 2). More than half of the health workers dealing with COVID-19 cases were young people. The majority of study participants (84.4%) were males – there were fewer females working in the hospitals – and 77.5% were nurses. A higher proportion of the participants (72.5%) were from the European Gaza Hospital. This hospital had a higher participation rate because it had been opened and accredited as an epidemiology hospital at the beginning

of the COVID-19 pandemic, before the opening of the Turkish-Palestinian Friendship Hospital. It had a greater bed capacity and more ICU beds than the Turkish-Palestinian Friendship Hospital. Less than 50% of our participants had < 5 years experience, with about 26% having ≥ 10 years experience (Table 2).

The distribution of participants' perceptions of the 2 hospitals' preparedness is shown in Table 3. Independent t -test indicated there were statistically significant differences between workplace perception and the domain "Work environment and availability of resources" ($P = 0.039$) in favour of the European Gaza Hospital (the Turkish-Palestinian Friendship Hospital was unequipped before the COVID-19 outbreak, it was opened after the outbreak had started).

The total weighted mean for the "Knowledge and training" domain items was 74.3%, mean 3.71 [standard deviation (SD) 1.18] (Table 4). The highest rated item was "I am aware of the COVID-19 symptoms", with a weighted mean of 81.1%; the fifth highest was "I have enough knowledge about COVID-19", weighted mean 72.6%.

The total weighted mean for "Work environment and availability of resources" was 63.3% (mean 3.17; SD 0.78) (Table 5). The highest rated item was "Supplies of alcohol-based hand sanitizers are available for staff and patients" at 73.3%, while "Instructions for correct hand hygiene procedures have been developed and distributed to hospital facilities" and "In my workplace, there is an infection control committee" were ranked fifth, both at 70.0%.

The total weighted mean for "Perceived effect on personal life and work" was 69.6% (mean 3.48; SD 0.54)

Table 2 Demographic characteristics of the study participants ($n = 160$), Gaza Strip, 2020

Characteristic	No.	%
Age (years)		
< 30	101	63.1
30–39	45	28.1
40+	14	8.8
Sex		
Male	135	84.4
Female	25	15.6
Occupation		
Nurse	124	77.5
Physician	36	22.5
Workplace		
European Gaza Hospital	116	72.5
Turkish-Palestinian Friendship Hospital	44	27.5
Experience (years)		
< 5	73	45.6
5–9	45	28.1
10+	42	26.3

(Table 6). The highest ranked item was “I am worried about my family in case of my absence” at 84.1%, while the 5th highest item was “I am afraid of falling ill with COVID-19” at 78.9%.

Analysing the checklist

Table 7 shows the completion of preparedness for COVID-19 in each hospital and the average completion rate for both hospitals. “Communicating information” was ranked first with an average completion rate of

78.85%, while “Knowledge and training” was ranked in seventh place with an average completion rate of 37.50%.

Discussion

The preparedness of health care facilities for the prevention of the transmission of SARS-CoV-2 is an immediate priority in providing COVID-19 care; protecting patients and health care workers; protecting high risk groups; maintaining essential health services

Table 3 Perceptions about preparedness by workplace among doctors and nurses (n = 160) in two hospitals in the Gaza Strip, 2020

Domain	Workplace	No.	Mean (SD) score	Weighted mean (%)	t	P-value
Knowledge and training	EGH	116	3.71 (0.69)	74.3	1.214	0.227
	TPFH	44	3.56 (0.81)	71.1		
Work environment and availability of resources	EGH	116	3.26 (0.69)	65.2	2.107	0.039*
	TPFH	44	2.93 (0.96)	58.5		
Perceived effect on personal life and work	EGH	116	3.49 (0.49)	69.9	0.453	0.652
	TPFH	44	3.45 (0.65)	68.9		

Weighted mean = mean/5 × 100%.
 SD = standard deviation.
 EGH = European Gaza Hospital.
 TPFH = Turkish-Palestinian Friendship Hospital.
 *Statistically significant at 0.05 level of significance.

Table 4 Top five knowledge and training preparedness competencies mentioned by doctors and nurses (n = 160) in two hospitals in the Gaza Strip, 2020

Item	Mean (SD) score	Weighted mean (%)	Rank
I am aware of the COVID-19 symptoms	4.06 (0.77)	81.1	1
I am aware of the COVID-19’s potential impacts on public health	3.98 (0.79)	79.6	2
I am aware of the basic principles of supportive clinical care for patients with COVID-19	3.71 (0.89)	74.3	3
I have been prepared in putting on (donning) and taking off (doffing) personal protective equipment	3.71 (0.91)	74.3	3
I have enough knowledge about COVID-19	3.63 (0.73)	72.6	5
Total for all domain items	3.71 (1.18)	74.3	-

Weighted mean = mean/5 × 100%.
 SD = standard deviation.

Table 5 Ranking of the top five work environment and availability of resources by doctors and nurses (n = 160) in two hospitals assigned to care for COVID-19 patients, Gaza Strip, 2020

Item	Mean (SD) score	Weighted mean (%)	Rank
Supplies of alcohol-based hand sanitizers are available for staff and patients.	3.66 (1.04)	73.3	1
Instructions for correct hand hygiene procedures have been developed and distributed to health care professionals	3.64 (1.02)	72.8	2
There are separate toilets and bathing areas for health care workers	3.60 (1.08)	72.0	3
Soap and paper hand towels are available in sufficient quantities next to all sinks (both in toilets and next to all hand wash sinks)	3.58 (1.07)	71.6	4
Instructions for correct hand hygiene procedures have been developed and distributed to hospital facilities	3.50 (1.05)	70.0	5
In my workplace, there is an infection control committee	3.50 (1.06)	70.0	5
Total for all domain items	3.17 (0.78)	63.3	-

Weighted mean = mean/5 × 100%.
 SD = standard deviation.

Table 6 Ranking of the top five perceived effects on personal life and work by doctors and nurses (n = 160) in two hospitals assigned to care for COVID-19 patients, Gaza Strip, 2020

Item	Mean (SD) score	Weighted mean (%)	Rank
I am worried about my family in case of my absence	4.21 (0.84)	84.1	1
I would have an increase in workload	4.07 (0.82)	81.4	2
My job would put me at great risk exposure.	4.03 (0.98)	80.5	3
I would have to work overtime	3.95 (0.86)	79.0	4
I am afraid of falling ill with COVID-19	3.94 (1.08)	78.9	5
Total for all domain items	3.48 (0.54)	69.6	-

Weighted mean = mean/5 × 100%.
SD = standard deviation.

to reduce the demand for specialized health care; and minimizing the spread of the pandemic to other health care facilities and the wider community (10). Thus, hospitals need to prepare in advance and develop an emergency plan; identify suppliers, PPE and equipment; and educate and train their staff in advance to prevent and treat large outbreaks of infectious diseases.

Almost two-thirds of the health workers dealing with COVID-19 cases in our study were young people, which may have some benefits in a pandemic situation as the level of effort in the isolation departments requires the strength and vitality of young people. They are generally able to endure the work stress which results from caring for large numbers of patients. Young people are in a position to receive and benefit from training and education programmes relevant to the circumstances.

Doctors and nurses are at high risk of being infected by patients if they do not have the essential knowledge and skills to deal with the disease or if they do not take adequate precautionary measures. In our study, the participants showed a high level of knowledge and training regarding the COVID-19 pandemic; this included symptoms of COVID-19 and its potential impact on public health, the basic principles of supportive clinical care for patients with COVID-19, and training on putting on and taking off PPE. This agrees with the findings of previous research, that participants were knowledgeable about the disease symptoms (11), and that majority of health care workers had sufficient knowledge of COVID-19 (12–16).

It was clear that the great majority of health care workers who participated in our study were worried about the risks to themselves and their families of working with people who had COVID-19 and about becoming infected because of their work. Their responses to the “Perceived effect on personal life and work” showed that they recognized that working with cases of COVID-19 affected their personal lives and their dealings with family members, especially the elderly. It affected how others related with them. Similar findings have been reported in other studies which showed that health care workers were anxious about their families becoming infected with COVID-19 because of their occupation,

especially those who had young children and the elderly in their families (17–20).

Our findings indicated that the level of preparedness in the Turkish-Palestinian Friendship Hospital was unsatisfactory (completion rate 41.33%). This may be attributed to the fact that the hospital was newly opened, the majority of its employees were new, and the hospital was not sufficiently prepared to receive high patient loads in terms of devices, equipment, communication, etc. The European Gaza Hospital was better prepared and equipped for the treatment of COVID-19 patients (completion rate 70.16%). This may be because it was prepared and specialized in advance to be ready to receive and treat COVID-19 cases.

In general, the level of preparedness at the 2 hospitals was unsatisfactory (55.75%). This is in accord with previous research in similar conflict-affected areas, which likewise concluded that the health care facilities in Yemen were unprepared and lacked the most basic resources and capabilities to cope with or tackle COVID-19 (21). Similarly, a study from Nigeria noted that the preparedness and response to the COVID-19 pandemic were unsatisfactory (18).

In contrast, a study conducted in Vietnam found that the preparedness and response of the health system in Hanoi were satisfactory (22) and a study in India reported that a tertiary-care teaching and research hospital in northern India obtained a score > 70% (good) (23).

The researchers recommend that the Ministry of Health should expedite the preparation of the Turkish-Palestinian Friendship Hospital to provide the best possible service to COVID-19 patients and reduce the burden on the European Gaza Hospital due to the high increase in the number of infected cases requiring medical care.

This study had some limitations. We used a convenience sampling method: this may be considered a source of selection bias. Only nurses and physicians were involved in the study, thus our sample did not represent all health care workers. However, nurses and physicians did comprise the greatest proportion of health care workers, had more contact with patients and were more affected

Table 7 Comparison of preparedness for the COVID-19 pandemic in two hospitals assigned to care for COVID-19 patients, Gaza Strip, 2020

Domain	Hospital	Completion (%) ^a	Average completion (%) ^b	Rank
Communicating information	EGH	92.31	78.85	1
	TPFH	65.38		
Development of COVID-19 plan	EGH	85.29	64.71	2
	TPFH	44.12		
Medical equipment and supplies	EGH	89.29	64.29	3
	TPFH	39.29		
Human capacity	EGH	65.38	55.77	4
	TPFH	46.15		
Infection prevention and control practices	EGH	64.71	50.00	5
	TPFH	35.29		
Identification and management, transportation of ill patients	EGH	44.74	39.48	6
	TPFH	34.21		
Knowledge and training	EGH	50.00	37.50	7
	TPFH	25.00		
Total	EGH	70.16	55.75	–
	TPFH	41.33		

TPFH = Turkish-Palestinian Friendship Hospital.

EGH = European Gaza Hospital.

^aData were collected using an observational checklist, with 3 options; Completed, In Progress, or Not started. Each option was given a percentage of completion (Completed = 100%, In progress = 50%, and Not started = 0%). Completion per hospital for each domain is the average of the domain items.

^bAverage completion = mean of % completion for the 2 hospitals combined.

by any change in the health system. Therefore, there is a need to assess the preparedness in these 2 hospitals from the perspective of other health care providers to get a clearer understanding of the situation. This may be considered sampling bias, which may undermine the external validity of the study (the ability of results to be generalized to all health care workers).

Data were collected using a self-administered questionnaire, which may be subjective and could reflect social desirability biases. To reduce this type of bias, the researchers used a checklist that was completed by themselves to assess preparedness in the 2 hospitals.

Conclusions

The participants showed a high level of knowledge and training regarding the COVID-19 pandemic (73.4 %). Overall, the level of the preparedness in the 2 hospitals was unsatisfactory. We recommend raising the level of preparedness in terms of equipment, resources and staff numbers (physicians and nurses).

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Évaluation de la préparation à la riposte contre la COVID-19 dans deux hôpitaux de la bande de Gaza

Résumé

Contexte : La préparation des hôpitaux permet au système de prestation de soins de santé de sauver des vies lors de situations d'urgence qui dépassent la capacité quotidienne des systèmes de riposte existants. La pandémie de COVID-19 a eu des répercussions négatives sur tous les aspects de la vie à travers le monde, et en particulier dans la bande de Gaza.

Objectifs : Nous avons évalué l'état de préparation de deux hôpitaux dans la bande de Gaza pour la riposte à la COVID-19.

Méthodes : Une étude observationnelle, analytique et transversale a été menée auprès de 160 personnels infirmiers et médecins entre juillet 2020 et octobre 2021 à l'Hôpital européen de Gaza et à l'Hôpital de l'Amitié turco-palestinienne, deux hôpitaux dédiés à l'accueil et aux soins des patients atteints de la COVID-19 dans la bande de Gaza. Les données ont été recueillies au moyen d'auto-questionnaires structurés et d'une liste de contrôle. Elles ont été analysées à l'aide du logiciel SPSS, version 23. Les fréquences et les données descriptives ont été utilisées pour évaluer les variables. Des statistiques inférentielles telles que l'ANOVA et le test-t ont été employées pour déterminer la signification des variables et les différences entre elles. L'alpha de Cronbach était de 0,903.

Résultats : Les participants étaient majoritairement constitués de personnels infirmiers (77,5 %). Ces derniers ont fait preuve d'un niveau élevé de connaissances et de formation en matière de riposte à la pandémie de COVID-19 (73,4 %). Leur perception de l'état de préparation de leurs hôpitaux en termes d'environnement de travail et de disponibilité des ressources était moyenne (63,6 %). Ils étaient près de 70 % à considérer que la COVID-19 a eu un effet négatif sur leur vie personnelle et professionnelle.

Conclusion : Le niveau de préparation dans les deux hôpitaux n'était pas satisfaisant (55,75 %). Des recherches supplémentaires sont recommandées pour évaluer le niveau de préparation des hôpitaux du point de vue des autres agents de santé.

تقييم الجهوزية للاستجابة لمرض كوفيد-19 في مستشفيات اثنين في قطاع غزة

محمد الجعبري، محمود الخطيب، حمادة درغام، أحمد الصوفي

الخلاصة

الخلفية: إن تأهب المستشفيات يُمكن نظام تقديم الرعاية الصحية من إنقاذ الأرواح في حالات الطوارئ التي تتجاوز القدرات اليومية لُنظم الاستجابة والتصدي الموجودة. ولقد كان لجائحة كوفيد-19 تأثير سلبي على جميع جوانب الحياة في جميع أنحاء العالم، وفي قطاع غزة خاصة.

الأهداف: هدفت هذه الدراسة إلى تقييم مدى الجهوزية للاستجابة لكوفيد-19 في مستشفيات اثنين في قطاع غزة.

طرق البحث: أُجريت دراسة رصدية وتحليلية مقطعية شملت 160 ممرضًا وطبيبًا في المدة من يوليو/ تموز 2020 إلى أكتوبر/ تشرين الأول 2021 في مستشفى غزة الأوروبي ومستشفى الصداقة التركي الفلسطيني، وهما مستشفيان مخصصان لاستقبال مرضى كوفيد-19 في قطاع غزة ورعايتهم. وُجمعت البيانات عبر استبيان منظم ذاتي يملؤه المستجيبون بأنفسهم وقائمة تحقق مرجعية. واستخدمنا SPSS، الإصدار 23، لتحليل البيانات. كذلك جرى استخدام التكرارات والبيانات الوصفية لتقييم المتغيرات. واستُخدمت إحصاءات استدلالية مثل تحليل التباين (ANOVA) واختبار t لتحديد الأهمية والاختلافات بين المتغيرات. وكان معامل ألفا كرونباخ يساوي 0.903.

النتائج: كان معظم المشاركين من من فئة التمريض (المرضى والممرضات) (77.5%) الذين أظهروا مستوى عاليًا من المعرفة والتدريب بشأن الاستجابة لجائحة كوفيد-19 (73.4%). وتبين أن تصورهم لمدى جهوزية مستشفياتهم من حيث بيئة العمل وتوافر الموارد متوسط المستوى (63.6%). ورأى قرابة 70% منهم أن مرض كوفيد-19 كان له تأثير سلبي على حياتهم الشخصية وعملهم.

الاستنتاجات: كان مستوى الجهوزية في المستشفيات الاثنین غير مُرضٍ (55.75%). ويُوصى بإجراء المزيد من البحوث لتقييم مستوى الجهوزية في المستشفيات حسب وجهة نظر العاملين الآخرين في مجال الرعاية الصحية.

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