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Research Article

Emergency Nurses in the Frontline during the COVID-19 Pandemic: A Qualitative Study

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Abstract

Background: The COVID-19 pandemic has disrupted the whole Healthcare process in the world, especially the Emergency Department who are manned by the Emergency Nurses in the frontline. The essential role they perform in identification, isolation and management of large number of patients in addition to the pandemic disease has been reinforced.

Aim: To document the measures and steps taken by the Emergency Nurses in a Tertiary Hospital's Emergency Department (ED) in Riyadh to combat the COVID-19 Surge.

Design and Methods: This study is a qualitative research which utilizes the narrative inquiry and storytelling as a valuable investigative technique which offers a detailed way of knowing, investigating the experiences, and exploring effective coping strategies of the Emergency Nurses during the COVID-19 pandemic.

Results: The various measures taken by the Emergency Nurses' in the Emergency Department in Riyadh have helped to (a) ensure disease awareness and communication among all healthcare professions in the organization, (b) respond quickly and effectively in the ED process of Isolation, Triage and Management of Care (c) constantly look-out for mental, emotional and physical health and welfare of the Emergency Nurses due to the impact of the COVID-19 pandemic, which includes the establishment of the Tracing team and Staff Safety and Wellness Program (SSWP).

Conclusion: The role of Emergency Nurses on the frontline is essential in identification, isolation and management of care in ED during the pandemic COVID-19. The lessons learnt, experiences shared and the various measures taken will help benefit the Emergency Nurses around the World.

Keywords: Emergency nurses; Emergency department; COVID-19

Abbreviations: COVID-19: Coronavirus Disease 2019; EMS: Emergency Medical Services; MOH: Ministry of Health; ED: Emergency Department; SARI: Severe Acute Respiratory Illness; PPE: Personal Protective Equipment; MERS- COV: Middle East Respiratory Syndrome-related Coronavirus; SSWP: Staff Safety and Wellness Project; KFSH & RC: King Faisal Specialist Hospital and Research Center; ICP: Infection Control Practitioner.

Introduction

The first case of COVID-19 infection in Riyadh was announced by the Ministry of Health (MOH) on the 2nd of March 2020, [1] wherein a citizen who returned from Iran via the Kingdom of Bahrain did not disclose his condition at the Saudi port of Entry. One of the top leading hospitals in Riyadh, the King Faisal Specialist Hospital and Research Center (KFSH & RC) which caters to a large portion of the cancer and transplant patient population across Saudi Arabia has its Emergency Department open 24 hours with approximately 200 ED staff around 65,000 patients annually. The Majority of the ED staff are Emergency

Nurses who are on the frontline working to provide the best possible quality healthcare to their patients.

The various measures and steps taken by the Emergency Nurses of a tertiary hospital ED in Riyadh in managing the COVID-19 pandemic were detailed using the patient's pathway in ED as a guide. [2] The Emergency Nurses shared their experiences and described the (a) disease awareness and communication, the (b) screening procedures, (c) isolation, triage & management of care, the (d) necessity for a tracing team in addressing and mapping out of COVID-19 cases. This highlighted the need for a Staff Safety and Wellness Program (SSWP) to make sure that each of the staff feel safe and that the department is on a constant look-out for their mental, emotional and physical health and welfare.

Design and Methods

Population and sample of research

The population of the study is set in a tertiary hospital in Riyadh, limited to the Emergency Nurses (n=10) at King Faisal Specialist Hospital and Research Center who were present and manned the Emergency Department from March 2020 up until June 2021.

Collection of Data

The data were collected using a narrative inquiry and storytelling of the Emergency Nurses which detailed the patient's pathway in ED as a guide. It outlined the various measures taken by the Emergency Nurses in:

- Screening Procedures
- Isolation, Triage and Management of Care
- Impact of COVID-19 pandemic to Emergency Nurses

Research Application

The interview was conducted with adherence to safety protocols and social distancing, the Emergency Nurses were informed about the study and their stories were documented. An informal conversational interview followed by a spontaneous generation of questions in the natural flow of conversation were conducted in a 30-minute to one-hour session.

Analyses of Research

The narrative thematic analysis process in which content within the text is the primary focus was the approach utilized. Various measures on the ED pathway mentioned above took the five stages of data analysis: (a) organization and preparation of the

data (b) obtaining a general sense of the information (c) coding process (d) categories or themes, and (e) interpretation of the data.

Ethical Consideration

Interviews were made with the Emergency Nurses who agreed to participate at a time available to them.

Results and Discussion

Emergency Nurses who are in the frontline during the COVID-19 pandemic shared the experiences and lessons learnt detailed using the patient's pathway in ED as a guide.

Theme 1: Disease Awareness and Communication

On the 2nd of March 2020, when the first case of COVID-19 was confirmed by the ministry of Health (MOH) [1] in Riyadh, KFSH & RC Emergency Nurses started to prepare for the pandemic through bi-weekly leadership meetings to discuss logistics, supplies and preparedness. They made sure that all EMS nurses were aware of the current situation, what was about to happen and most importantly, kept them continuously updated of the new Hospital guidelines addressing the virus. They created an internal digital command wherein all the updates were rolled out to the staff by only one unified source to avoid confusion from the frequent changes to patient flow in response to the rapidly changing COVID-19 situation.

Theme 2: Screening Procedures

The number of entrances to the Hospital were restricted and manned by Healthcare personnel's to limit and screen the flow of entering patients and staff. All were asked to wear facemasks to prevent the exposure to COVID-19 infection in the Hospital. The Emergency Department was limited to two entrances (a) in the Registration next to the Primary Triage and (b) in the Ambulance bay next to the Secondary triage, both of which were manned by different a designated Screening Nurse. [3] The EMS already had a robust and proven screening process for MERS- COV which prepared the Emergency Nurses to respond quickly and effectively to the new threat. The Adult & Pediatric Severe Acute Respiratory Illness (SARI) Nursing Screening (Figures 1 and 2) was utilized by Screening Nurses to isolate patients suspected with COVID-19. A score of equal to 4 or above, the patients were asked to perform hand hygiene, wear a surgical mask, direct the patient through the respiratory pathway and inform the physician for assessment. Mers-COV or COVID-19 testing were only done according to case definition.

Adult Severe Acute Respiratory Illness (SARI) Nursing Screening

Department:

Clinical Signs and Symptoms and Medical History:

<p>Fever or recent history of fever <input type="radio"/> Yes <input type="radio"/> No</p> <p>Shortness of breath (new or worsening) <input type="radio"/> Yes <input type="radio"/> No</p> <p>Cough (new or worsening) <input type="radio"/> Yes <input type="radio"/> No</p> <p>Did you do a swab culture for the COVID-19 in the last 14 days and what was the result? <input type="radio"/> Yes <input type="radio"/> No</p>	<p>Nausea, vomiting, and/or diarrhea <input type="radio"/> Yes <input type="radio"/> No</p> <p>Chronic renal failure, CAD/heart failure, Immunocompromised patient <input type="radio"/> Yes <input type="radio"/> No</p> <p>Headache, sore throat, or rhinorrhea <input type="radio"/> Yes <input type="radio"/> No</p>
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Exposure Risks:

Yes No

A history of travel abroad in the past 14 days
OR
A contact with a confirmed case of COVID-19 or MERS-CoV in the last 14 days prior to symptom onset.
OR
An exposure to camel or camel's products (direct or indirect*) in the last 14 days prior to symptom onset.
OR
Lived in or worked in a facility known to be experiencing an outbreak of COVID-19 in the last 14 days prior to symptom onset.

Specify Type of Exposure:

- A history of travel abroad in the past 14 days
- A contact with a confirmed case of COVID-19 or MERS-CoV in the last 14 days prior to symptom onset
- An exposure to camel or camel's products (direct or indirect*) in the last 14 days prior to symptom onset
- Lived in or worked in a facility known to be experiencing an outbreak of COVID-19 in the last 14 days prior to symptom onset

Total SARI Score:

A score - 4 or above, ask the patient to perform hand hygiene, wear a surgical mask, direct the patient through the respiratory pathway and inform MD for assessment. MERS-CoV OR COVID-19 testing should be only done according to case definitions

*** This screening form DOES NOT replace Physician assessment and decision-making**
*** Consult with Infection Control & Hospital Epidemiology (ICHE) as required**

Patient/Sitter Instructions

<p>Patient Instructions: Action Taken</p> <p><input type="checkbox"/> MD informed of SARI screening result</p> <p><input type="checkbox"/> Patient given surgical mask to wear</p> <p><input type="checkbox"/> Patient placed in negative pressure room</p>	<p>Additional Comments</p> <p><input type="text" value=""/></p>
<p>Sitter/Accompanying Person Screened</p> <p><input type="radio"/> N/A</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<p>Additional Comments</p> <p><input type="text" value=""/></p>

Figure 1: Adult Severe Acute Respiratory Illness (SARI) Nursing Screening.

Pediatric Severe Acute Respiratory Illness (SARI) Nursing Screening

Department

Others (See text) ▼

Clinical Signs and Symptoms and Medical History:

Fever > or = to 38 Deg. Celcius
(Recent History 72 hours)

Yes
 No

Cough (new or worsening)
(Recent History 72 hours)

Yes
 No

Shortness of breath (new or worsening)

Yes
 No

Nausea, vomiting, and/or diarrhea

Yes
 No

Headache, sore throat, or rhinorrhea

Yes
 No

Did you do a swab culture for the COVID-19 in the last 14 days and what was the result?

Yes
 No

Exposure Risks:

Specify Type of Exposure:

A history of travel abroad in the past 14 days
OR
A contact with a confirmed case of COVID-19 or MERS-CoV in the last 14 days prior to symptom onset.
OR
An exposure to camel or camel's products (direct or indirect*) in the last 14 days prior to symptom onset.
OR
Lived in or worked in a facility known to be experiencing an outbreak of COVID-19 in the last 14 days prior to symptom onset.

Yes
 No

A history of travel abroad in the past 14 days
 A contact with a confirmed case of COVID-19 or MERS-CoV in the last 14 days prior to symptom onset
 An exposure to camel or camel's products (direct or indirect*) in the last 14 days prior to symptom onset
 Lived in or worked in a facility known to be experiencing an outbreak of COVID-19 in the last 14 days prior to symptom onset

Total SARI Score

A score = 4 or above, ask the patient to perform hand hygiene, wear a surgical mask, direct the patient through the respiratory pathway and inform MD for assessment.
MERS-CoV OR COVID-19 testing should be only done according to case definitions

*** This screening form DOES NOT replace Physician assessment and decision-making**
*** Consult with Infection Control & Hospital Epidemiology (ICHE) as required**

Patient/Sitter Instructions

Patient Instructions: Action Taken

MD informed of SARI screening result
 Patient given surgical mask to wear
 Patient placed in negative pressure room

Additional Comments

Sitter/Accompanying Person Screened

N/A
 Yes
 No

Additional Comments

Figure 2: Pediatric Severe Acute Respiratory Illness (SARI) Nursing Screening.

Theme 3: Isolation, Triage and Management of Care

In order to manage high volumes of potential respiratory symptoms and high SARI scores, a designated respiratory waiting room with HEPA filters was created. The Department has a total of 17 negative pressure rooms and obtained 33 HEPA filters to respond to increased volumes of patients requiring swabbing. For the process to run smoothly, EMS nurses made sure to collaborate with their EMS physicians so that they could come up with a medical decision for a rapid and correct designation of the patient inside the EMS. EMS housekeepers were also involved in the flow to make sure that the rooms were clean and available for the next patient to be seen or to occupy the room.

With the rapid response came a very high risk of exposure to COVID-19 by EMS staff. Emergency Nurses created a special team to assess the Department's knowledge and compliance of proper donning and doffing of Personal Protective Equipment (PPE). An internal EMS education initiative which involved everyone who worked within EMS (physicians, interns, residents, nurses, radiologists, kitchen staff, housekeepers, EMS coordinators, ward clerks and others) was conducted [4]. The Department recognized a difficulty in remembering the PPE sequence for some employees, hence a task force consisted by Emergency Nurses were created to conduct a special technique to remember the sequence in an easy way. They also created a video clip that everyone in EMS can access through their phones anytime (Figure 3).



Figure 3: PPE Video shoot for Awareness Campaign.

Eventually, each EMS staff was evaluated in Proper Donning and Doffing of PPE, attaining a 100% compliance. [5] In addition, the Emergency Nurses made sure to correctly disseminate the information by working closely with the guidance of their Hospital's Infection Control Practitioner (ICP). They made sure to constantly update the ICP of the current status of the department in PPE.

A part of PPE is wearing N95 masks, and to ensure all disciplinary teams were fit tested, Emergency Nurses formed a team to provide an in house fit testing every day at certain times for the whole Emergency Department (Figure 4).



Figure 4: EMS In-house Fit testing.

During the ongoing pandemic, Emergency Nurses also made sure to protect the EMS staff by highlighting its achievement in N95 In-house fit testing percentage. It achieved a great job of 100% for all employees in the ED. The total of nursing, paramedics and non-medical staff fit tested was 167. The total of EMS consultants tested was 26 in Adult section and 11 in the pediatric section. The total EMS residents fit-tested was 41.

Theme 4: Impact of COVID-19 Pandemic to Emergency Nurses

Since the Emergency Nurses had to adapt and rapidly accommodate the influx of critically ill patients in addition to the COVID-19 pandemic, the mental, emotional and physical exhaustion experienced made it harder for the Emergency Nurses to attain Optimal Health. The establishment of the (a) the Tracing Team and (b) Staff Safety and Wellness Program was a way to ensure the staff felt that the Organization was in a constant look-out on their mental, emotional and physical state.

Sub Theme: The Tracing Team

A creation of a tracing team led by two Emergency Nurses was put in place to follow up on EMS staff who had contact with or may have potentially worked with or cared for a patient with a suspected or confirmed case of COVID-19 and where in quarantine. The tracing of Staff and constant update of their health and welfare were made for the staff to feel safe. The daily Tracing Team message and call to each staff traced to constantly talk and provide support on their health or personal issues.

Sub Theme: The Staff Safety and Wellness Program

Emergency Nurses recognized immediately the health, safety and wellbeing of the EMS team was vital and immediately initiated a department wide proactive project to address staff burnout. They worked together with a new ensemble of enthusiastic leaders which formed the Staff Safety and Wellness Program (SSWP) to execute a group of proactive activities with a reward scheme (e.g. the Radiant Sun Awards). The awards were given to EMS staff who demonstrated a beaming personality which resulted in positive outcomes for patients and their significant others, team spirit and boosting team morale (Figure 5). More than 30 staff won different prizes and were celebrated in the initial ceremony (Figure 6).

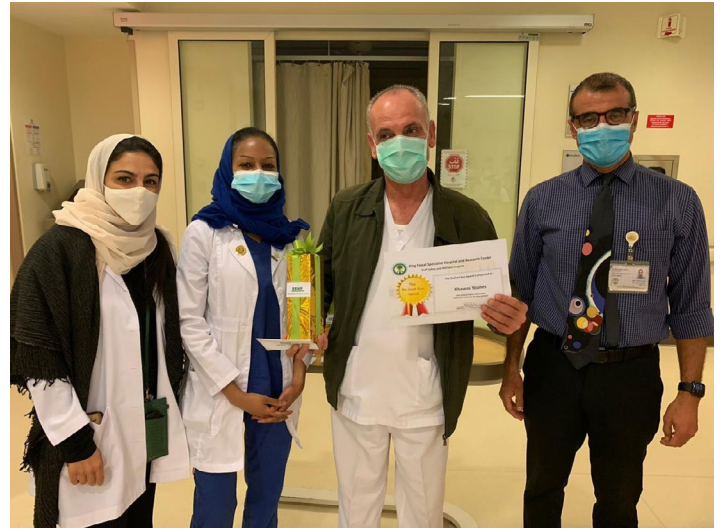


Figure 5: The Radiant Sun Awards.



Figure 6: Prizes for EMS Staff.

The Emergency Nurses' initiative was well accepted and recognized by the Organization's Staff Safety and Wellness Program (SSWP) Director Dr. Esam Albanyan. Together with the EMS Nursing leaders and SSWP Team, weekly meetings (Figure

7) were held to establish a foundation to create the project with foreseeing results of influencing each unit of the Organization with the same spirit and enthusiasm with that of the same as the Emergency Nurses.



Figure 7: The SSWP Structure.

The SSWP conducted a group of beneficial activities for EMS and the organization (Figures 8-10).

MR. / MS. KSA
 (KNOWLEDGE-SUPERB IN ACCREDITATION)
 FORMERLY: THE SLAYERS
 EVERY ACCREDITATION

OBJECTIVE:
 Preparations in Hospital Accreditation is stressful to the staff, so we prepare ahead of time, create fun activities and even conduct games to engage staff and involve them in the actual demonstration and practice them in answering Accreditation Questions.



CBAHI VISIT

CBAHI Visit JULY 2020
 Dear All,
 In reference to the CBAHI Site Visit last Thursday, 09 July 2020, I would like to thank you all for the great job that you have done! It was indeed very successful with no citations at all.
 As a matter of fact, the Surveyors were impressed by how we are handling COVID-19 in ER and the hospital overall.
 Again, thank you!
 For: Dr Abdulaziz Alrajhi
 Chairman, Department of Emergency Medicine

MAGNET ACCREDITATION 2019

Special Citation of EMS in Nursing Leadership Meeting



EMS STAFF WITH MAGNET APPRAISER



Figure 8: Mr. & Ms. KSA (SSWP).

TEAM BATTLES
 MONTHLY

OBJECTIVE:
 To promote camaraderie and teamwork.
 Three Folds :
 *FIGHT over IDEAS , not personality
 *Never Dismiss an idea without first seeking its MERITS
 *Commit to having each other's back, even when you disagree
 The Winning TEAM will get PERKS and Prizes (e.g. the raffle draw)

SAMPLE TEAM BATTLES

THE PICTURE-IT CHAMPION
 (TEAM Photo Contest)
 TBA

EMS BAKER KING/QUEEN
 (Team Bake-off challenge)
 TBA

Figure 9: The Team Battles (SSWP).

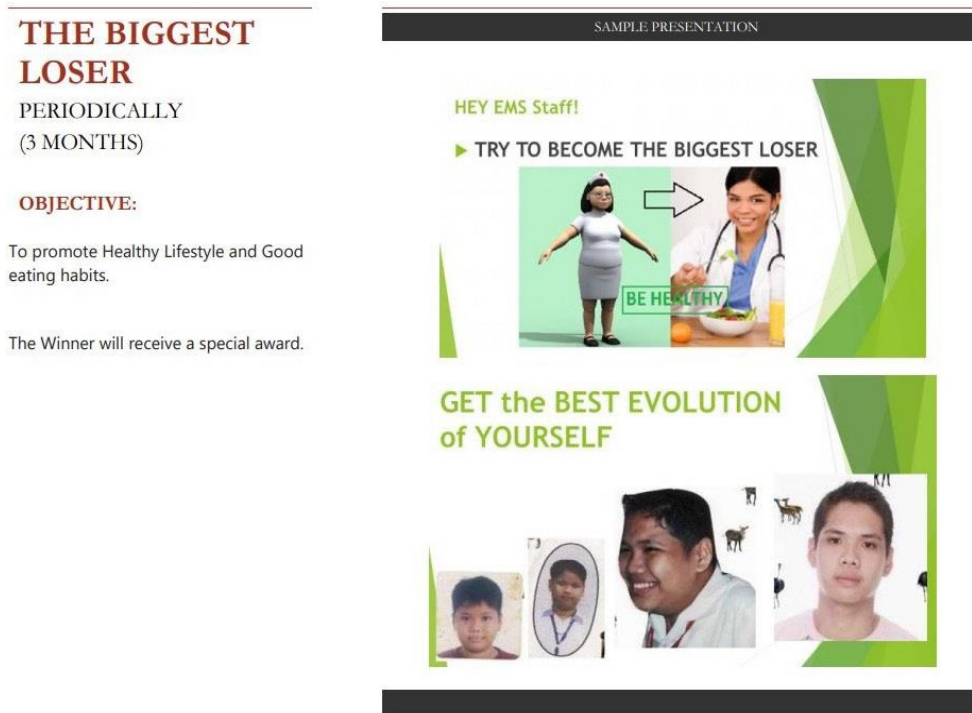


Figure 10: The Biggest Loser.

Currently, SSWP is on its second launch of the organization’s Book Club. (Figure 11)



Figure 11: The 2nd Book Club.

Conclusion

In addition to direct patient care, the role of Frontline Emergency Nurses during the pandemic COVID-19 is essential in certain aspects: (a) awareness of the disease through organized unified communication (b) the ED process in Identification, Isolation, Triage and Management of Emergency patients (c) the impact on the Emergency Nurses brought by the pandemic and the need to establish strategies to cope with it. The lessons learnt, experiences shared and the various measures taken will help benefit the Emergency Nurses and Emergency Departments all around the World with a hope of looking forward to see the establishment of an international sharing and communication network with all Emergency Nurses worldwide to learn from each other’s experiences.

Acknowledgement

We would like to thank all those who contributed to this study. We would like to extend our gratitude towards Dr. Rashed Sulaiman Alhmaid who gave us motivation to accomplish this study. We would also like to thank Dr. Esam Albanyan, Dr. Muhammad Nauman Qureshi and Mr. Acey John Estrada who proofread and made revisions in this research.

References

1. (2020) MOH Reports First Case of Coronavirus Infection. MOH News.
2. Hunsaker S, Chen HC, Maughan M, Heaston S (2015) Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship* 47: 186-194.
3. WHO/Global Alert and Response (GAR) - Pandemic (2009) Update 63.
4. Hellenic Centre for Disease Control and Prevention (KEELPNO).
5. Tam CWC, Pang EPF, Lam LCW, Chiu HFK (2004) Severe Acute Respiratory Syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers. *Psychological Medicine*. 34: 1197-204.