

Assessment of Factors Affects the Performance of Red Crescent Paramedics, Makkah at Saudi Arabia 2023

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Abstract:

Background:

The Saudi Red Crescent Society (SRCS) plays an important role in the health care field. It is a welfare society working for all people to bring them out of disastrous situations such as road traffic accidents, fire, and floods or in any emergency state. Most of the patients are brought to hospital by some type of vehicle as private car or taxi. Some of the patients are brought to hospital by the Saudi Red Crescent Society service. This society is responsible to provide services at the places wherever any mishap takes place without any cost. Saving lives is the ultimate purpose of the Red Crescent paramedics. It is crucial to enable safe, effective, and efficient performance of paramedics globally. In Saudi Arabia, the Red Crescent faces at least over 280,000 cases every year. Satisfaction of Red Crescent paramedics plays a crucial role in assessments of the effectiveness of healthcare delivery. It is of absolute importance in the quality assessment as its comprehensive analysis can highlight both well-functioning and problematic aspects of a hospital.

Aim of the study: To assessment Factors affects the performance of Red Crescent paramedics, Makah at Saudi Arabia 2023.

Method: cross sectional study conducted in Saudi Red Crescent in Makah in Saudi Arabia in Sample red crescent paramedics, consists of Saudi red crescent paramedics aged 30 <50 years attending, 200 paramedic staff in Makah city were invited to participate in this descriptive qualitative study. Among them, 200 paramedics agreed to participate in an in-depth semi-structured interview. Our total participants were (70).

Results: Show regarding age majority of the study groups from the 35-45 years were (34.0%) regarding the marital status the majority of them single were (34.0%) regarding the education status the majority of the respondents bachelor paramedic were (53.0%) regarding the years of experience the most of the participants answer ≥ 20 were (47.0%) salary satisfaction the most of participant 8000-15,000 were (45.0%) while <8000 were (35.0%) while $\geq 15,000$ were (20.0%).

Conclusion: The Saudi Red Crescent Authority has focused on building a well-defined plan to help maintain a unique content for improving the quality of red crescent and increase red crescent paramedics satisfaction, Understanding the factors affects the performance of red

crescent paramedics to guide national preventive measures and help decision-makers to implement proper corrective actions.

Keywords: Assessment, influential, factors, associated, medication-non, adherence, self-care, practices, diabetes mellitus, Saudi Arabia .

Introduction

Background

Saving peoples' lives is the ultimate priority of all ambulance services.[1] This includes the Red Crescent's responsibility for ensuring adequate ambulance services to mitigate calamities and human suffering in Saudi Red Crescent Authority .[2] The paramedics in the Red Crescent are registered health professionals who are the first responders in the healthcare setting.[3] As paramedics, they face over 280,000 cases every year (SRCA, 2019).[4] These frightening numbers include life-threatening conditions, such as strokes, coronary syndrome, sudden births, and injuries involving traffic accidents. In fact, there are over 30,179 road traffic accidents and over 4600 deaths each year in Saudi Arabia.[5] Moreover, statistics have shown that road injuries and sudden stroke are the second and third leading causes of death after ischemic heart diseases.[6] The significance of ambulance services in the early phase of these injuries is critical to enable proper treatment.[7] Therefore, the paramedics' determination in reducing the response times of those accidents is acknowledged to improve the survival of patients.[8]

Road traffic injuries (RTIs) have a significant impact on the healthcare system as well as the global economy. RTIs involving ambulance crashes not only cause delays in patient transfers but also endanger ambulance occupants and other road users.[9] Due to the rising numbers of RTIs in the Kingdom of Saudi Arabia (KSA), the country's primary provider of pre hospital services the Saudi Red Crescent Authority (SRCA) has established a new Trauma Epidemiology Center (TEC) following the KSA 2030 vision .[10]

The society Saudi Red Crescent Society emergency service is supposed to be comprised of a squad of trained persons who can deal with emergency situations and vehicles (ambulances) equipped with measures of management of ABC (airway, breathing and circulation).[11] The Emergency Medical Service (EMS) in Saudi Arabia is managed by each hospital through the SRCS. [12] There are approximately 165 ambulance stations in the country, each with 2 ambulances. [13] Mass gatherings are worldwide events, and the Hajj season is considered one of the significant mass gathering events that happen annually in Makah city, Saudi Arabia, where around 2 million people attend Makah to perform night prayers and Umrah. All the cases brought to the ER and Red Crescent Saudi Red Crescent Society emergency service were included[14] .

It is proven that primary health care and family physicians put effort in providing individuals with medical needs to avoid potential needs of emergency.[15] Furthermore, according to Lima et al.,[16] providing efficient pre-hospital care and the rapid arrival to hospitals also contribute to the decreasing number of deaths. [16] More than half of heart attack incidents reached the hospital 400 min later than the ideal time of 180 min.[17] It is worth mentioning that every 30-min extension in treatment suspension is associated with a 7.5% higher relative risk of 1-year mortality, the causes of these obstacles vary from road traffic, delays in reporting accidents, and issues with the weather to a lack of ambulance service centers. [18]

Studies have also indicated that improving the paramedics' physical and psychological well-being will lead to a significant improvement in ambulance services.[19] This is because the nature of working in an ambulance involves working with stressful and sometimes helpless situations. This leads paramedics to feel frustrated and overwhelmed during and after the event, consequently, this can potentially degrade the ambulances' work.[20] Furthermore, studies have explained that one of the common issues is their locations.[21] A comparison was implemented between the efficiency of emergency medical services and the ambulance response time, and the results showed that the highest demand and slowest response time existed in locations where there is a lack of ambulance centers.[22] Thus, this problem should be recognized and addressed to improve the individuals' quality of life. However, there is limited research addressing the elements that limit the paramedics' critical occupation .[23]

Review of literatures

Study by Al Enazi et al 2018 found that have further shown that the occurrence of speed bumps on highways significantly affects the speed of arrival and increases the patients' pain. Research has indicated that during ambulance transport, patients recognize vibrations, and the consequences are painful and at times disconcerting.[24]

Furthermore, the study has identified additional factors affecting paramedics, including their physical health. The paramedics have explained that lifting people, especially when patients are obese, is considered a factor that causes distress in their work. Moreover, other studies have agreed with these findings as they stated that physical tasks and demands of the role, such as managing heavy patients, equipment, and uncomfortable positions, are significantly related to physical injury due to the unpredictable environment.[25] Additionally, participants have also reported concern about their mental well-being. Current research shows that paramedics face significantly higher rates of depression, anxiety exhaustion, sleep deprivation, post-traumatic stress disorder, and suicide than the general population.[26] Furthermore, studies have shown that physical well-being is significantly correlated with the mental well-being of paramedics.[27] A study was performed to examine the mental health of Saudi and Australian paramedics; the results showed that Saudi paramedics report lower physical functioning than Australian paramedics.[28] Therefore, this is a serious matter that should be investigated and advanced to increase the effectiveness of paramedics and reduce distress as much as possible.

Study by Jafari et al 2019 reported that participants reported interruptions and the interference with paramedic procedures by the crowd to be their biggest challenge. This is especially true when the people who interfere have no medical experience. Similarly, studies have explained that crowding adversely affects the accuracy of care delivery. [29]

Study by Althunayyan et al 2021 that regarding has clarified that the preparedness of the Red Crescent system needs to improve. Moreover, the study results indicate that the majority of Red Crescent providers were male emergency medical technicians.[30] They can provide only limited care in comparison with paramedics specialists. Moreover, the majority of the Saudi Red Crescent employees are emergency medical technicians [16] .

Studies have found a high demand at Red Crescent centers, especially around rural areas and the paramedics brought up the continuous obstacles that they face, including long roads, and the pitfalls that they have to overcome, which affect their safe arrival at the hospital. [31]

Mass gathering events are always straining the host's resources. Therefore, planning is very important before hosting an event. The study's results showed that most of the participants claimed that they have had enough resources during Hajj. Moreover, one of the resources is medications, which have an important role in treat and release. Paramedics who have the authority to administer medications in their guidelines can use medication on the scene to treat patients and decrease transportations to local hospitals. However, the number of paramedic was very minimal compared to technicians who do not have the authority to administer medications. Therefore, the treat and release plan (on-site treatment) was not efficiently functional. Whereas Feldman et al. had an effective treat and release plan, due to using medications and decreased transport to hospitals that reached 1.2%. [32]

A study by Modi et al. (2018) they found that there is a general lack of awareness among people regarding the "emergency line" scope and services in India. [33] Furthermore, research has mentioned that the contribution of primary healthcare providers and family physicians' advanced promotion of social awareness would reduce social ignorance toward emergency procedures. However, it is clear that raising social awareness regarding this topic and restricting policies and regulations can reduce those complications and ease the procedures of the Red Crescent paramedics. [34] Nevertheless, the majority of participants in this study expressed concern about the long distance and the road quality as Saudi Arabia is a considerably large country. [23]

Rationale

In most previous research, it was found most of the participants mentioned that there are many behaviors that appear from the community before and during the performance of emergency services that negatively affect performance in their work. Most of the participants attributed these behaviors to the community's lack of awareness of the role and importance of emergency work to save people's lives. These issues are types of emergency calls, the crowd that gathers at an incident's location, and people's involvement. Defines a disaster as a "situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering". The World Health Organization states one of the criteria must be met to record a disaster into the worldwide database. Ten or more people reported killed, 100 or more people reported affected, declaration of a state of emergency, call for international assistance. The most important part of the studies was the ABC management provided by the team to the patients.

Aim of the study

To assessment Factors affects the performance of red crescent paramedics, Makkah at Saudi Arabia 2023.

Specific objective

To assessment Factors affects the performance of red crescent paramedics, Makkah at Saudi Arabia 2023.

Methodology

Study setting:

This study has been conducted among Red Crescent paramedics staff in Makah city were invited to participate. Among them, 200 paramedics agreed to participate in an in-depth semi-structured interview

Study Population

The study population consists of Red Crescent paramedics staff in Makah city were invited to participate. Among them, 200 paramedics agreed to participate in an in-depth semi-structured interview.

Study Design

Cross-sectional, This is a descriptive qualitative study, systematic random sampling technique

Inclusion criteria:

- Red Crescent paramedics staff approved
- Aged 20-45 years
- Able and willing to participate in the study .

Exclusion Criteria

- Not able and refuses to participate in the study.

Sample size:

Using EPI info version 24, the study sample size has been determined based on the following assumptions :

Since there is not an official release, e.g., by the "Central Department of Statistics and Information" in Saudi of Red Crescent paramedics staff of the exact census of Makah in Saudi Arabia residents falling within the study's Red Crescent paramedics staff category, a source population size of the same of has be assumed. (Definitely, the true population of such category is greater , also to be most conservative, the least number needed for a reasonably large sample size that allows generalizability of the study result. Knowingly, sample sizes obtained from source population sizes above are not significantly different). Accordingly, a sample size (n) would be 200. In order to account for non-response and achieve more generalizable results, the investigator has be increase the sample size up to 200.

Sampling Technique:

The main aim of the in-depth interviews was to explore the Red Crescent paramedics' perspectives in terms of potential factors that may affect paramedics in Makah, Saudi Arabia. Open-ended questions were asked during the interviews to allow the paramedic staff to share their experience, such as "what are the positive things in your work as a paramedic?"; "What are the difficulties and challenges that you face at daily work?"; and "Are there any environmental factors or any other factors that affect your work?" All interviews were done through Blackboard platforms due to the governmental rules imposed or interview . All paramedics preferred the Arabic language during the interview. Therefore, all data processed were in Arabic; when the data were analyzed, the researchers translated it into English. Thematic analysis was used. The interview durations were 20–30 min. Both researchers were aware of the study's confirm ability, credibility, and transformability. For example, both researchers were listening to the interviews and ensured that the correct meaning was inferred. Also, both researchers participated in analyzing the data and coding, and both agreed about the study's themes.

Sampling method:

All (200) Red Crescent paramedic's staff in Makah city were invited to participate. Among them, 200 paramedics agreed to participate in an in-depth semi-structured interview..

Data collection method:

Self-administered questionnaire has been given to all participants. Open-ended questions were asked during the interviews to allow the paramedic staff to share their experience, such as “what are the positive things in your work as a paramedic?”; “What are the difficulties and challenges that you face at daily work?”; and “Are there any environmental factors or any other factors that affect your work?”

Data Collection Technique

This research was approved by the Research Ethics Committee of Umm al-Qura University, Saudi Arabia . An information sheet and consent form were distributed to all participants

Data Entry and Analysis

Data has been collected and coded and then entered to a MS program with adequate backup. Descriptive statistics, e.g., number, proportions, cumulative proportions, mean and standard deviation, etc. has been displayed, as appropriate. Analytically, a parametric technique . Otherwise, a non-parametric alternative .

Pilot Study

A pilot study has been done on 10 Saudi patients who meet the study’s eligibility criteria. The pilot study has been mainly help examine both the instrument’s content validity and construct validity issues, alongside with other needed information.

Ethical Considerations

Consents forms were signed by participants and collected prior. They all understood that participation was voluntary, and they knew that they had the right to skip any question that they wanted. In addition, they were aware that they had the right to stop the interview and withdraw at any stage of the study. This study also ensured that all participants would have anonym zed responses in the case of publication .

Budget : Self-funded.

Result

Table 1: Socio-demographic profile of all participated in the study . (n=200)

Demographic Characteristics	N	%
Age		
20-25	46	23
25-35	38	19
35-45	68	34
More than 45	48	24
Gender		
Male	154	77
Female	46	23
Nationality		
Saudi	178	89
Non-Saudi	22	11
Marital Statue		
Single	68	34
Married	60	30

Unmarried	44	22
Diverse	28	14
Level of education		
Physician	38	19
Diploma paramedic	56	28
Bachelor paramedic	106	53
Years of experience		
<5	24	12
10-15	46	23
15-20	36	18
≥20	94	47
Monthly income		
<8000	70	35
8000-15,000	90	45
≥15,000	40	20

Regarding the distribution of the socio-demographic details among the participant regarding age majority of the study groups from the 35-45 years were (34.0%) followed by More than 45 were (24.0%) while 20 to 25 years were (23.0%) but 25-35 years were (19.0%), regarding the gender many of the respondents were male (77.0 %) while female were (23.0%), regarding the nationality the majority of the respondents Saudi were (89.0%) while Non-Saudi were (11.0%) , regarding the marital status the majority of them single were (34.0%) while married were (30.0%) but unmarried were (22.0%) but divorced were (14.0%), regarding the education status the majority of the respondents bachelor paramedic were (53.0%) but diploma paramedic were (28.0%), while physician were (19.0%) , regarding the years of experience the most of the participants answer ≥20 were (47.0%) while 10-15 were (23.0%) but 15-20 were (18.0%) while < 5 were (12.0%), regarding the salary satisfaction the most of participant 8000-15,000 were (45.0%) while <8000 were (35.0%) while ≥15,000 were (20.0%).

Table 2: Distribution of experience of the participants Red Crescent paramedics

	N	%
Training regarding management		
Yes	144	72
No	56	28
Specific courses or training to work in Hajj		
Yes	138	69
No	62	31
Required courses		
Basic life support (BLS)		
Yes	196	98
No	4	2
Advanced cardiovascular life support (ACLS)		

Yes	124	62
No	76	38
Pediatric advanced life support (PALS)		
Yes	96	48
No	104	52
Pre hospital trauma life (PTHLS)		
Yes	50	25
No	150	75
None		
Yes	30	15
No	170	85
Available resources		
Yes	50	25
No	150	75
Scarce resources		
Medical equipment		
Yes	178	89
No	22	11
Personal protective equipment (PPE)		
Yes	174	87
No	26	13
Medications		
Yes	184	92
No	16	8

Regarding the distribution of experience of the participants Red Crescent paramedics regarding training regarding management majority of the study groups answer Yes were (72.0%) followed by No were (28.0%) , regarding specific courses or training to work in Hajj most of the respondents answer Yes (69.0 %) while No were (31.0%), regarding

Required courses

Regarding the Basic life support (BLS) the majority of the respondents answer Yes were (98.0%) while No were (2.0%) , regarding the Advanced cardiovascular life support (ACLS) the majority of participant answer Yes were (62.0%) while No were (38.0%), regarding the pediatric advanced life support (PALS) the majority of the respondents answer No were (52.0%) but Yes were (48.0%), regarding the Pre hospital trauma life (PTHLS) the most of the participants answer No were (75.0%) while Yes were (25.0%) , regarding None the most of the participants answer No were (85.0%) while Yes were (15.0%), regarding Available resources the most of the participants answer No were (75.0%) while Yes were (25.0%)

Regarding the Scarce resources

Regarding medical equipment the most of the participants answer Yes were (89.0%) while No were (11.0%), regarding the personal protective equipment (PPE) the most of the participants answer Yes were (87.0%) while No were (13.0%) , regarding the Medications the most of the participants answer Yes were (92.0%) while No were (8.0%)

Table 3: Approaching to patient by the participants

Personal protective equipment	N	%
Gloves		
Yes	170	85
No	30	15
Mask		
Yes	190	95
No	10	5
Gown		
Yes	158	79
No	42	21
Goggles		
Yes	176	88
No	24	12
Past medical history of the participants		
Receiving vaccinations		
Yes	138	69
No	62	31
Type of vaccines received		
Influenza vaccine	176	88
Meningococcal vaccine	192	96
Chickenpox vaccine	130	65
Measles, mumps and rubella vaccine	70	35

Regarding the Approaching to patient by the participants regarding gloves majority of the study groups answer Yes were (85.0%) followed by No were (15.0%) , regarding mask most of the respondents answer Yes (95.0 %) while No were (5.0%), regarding , regarding the gown the majority of the respondents answer Yes were (79.0%) while No were (21.0%) , regarding the goggles the majority of participant answer Yes were (88.0%) while No were (12.0%),

Regarding past medical history of the participants

Regarding the **receiving vaccinations** the majority of the respondents answer Yes were (69.0%) but No were (31.0%), regarding the Pre hospital trauma life (PTHLS) the most of the participants answer No were (75.0%) while Yes were (25.0%) , regarding **type of vaccines received** the most of the participants Meningococcal vaccine were (96.0%) while Influenza vaccine were (88.0%), but Chickenpox vaccine were (65.5) while Measles, mumps and rubella vaccine were (35.0%)

Table 4: Distribution of factors the performance of Red Crescent in case participants are paramedics and emergency medical technicians

Variable	N	%
Decontaminate the ambulance		
Yes	94	47
No	66	33
Not applicable	40	20
Administer medications		
Yes	138	69
No	38	19
Not applicable	24	12
The plan to provide care to life threatening patient in closed roads		
Treat on site	102	51
Transport to close facility	72	36
Air ambulance	20	10
Do nothing	6	3
Number of providers in ambulance		
1	50	25
2	32	16
3	100	50
4	18	9

Regarding the distribution of factors the performance of Red Crescent in case participants are paramedics and emergency medical technicians regarding decontaminate the ambulance majority of the study groups answer Yes were (47.0%) followed by No were (33.0%) while Not applicable were (20.0%) , regarding administer medications most of the respondents answer Yes (69.0 %) while No were (19.0%) while Not applicable were (12.0%), regarding the plan to provide care to life threatening patient in closed roads the majority of the respondents treat on site were (51.0%) while transport to close facility were (36.0%) , while Air ambulance were (10.0%) while do nothing were (3.0%), regarding the number of providers in ambulance the majority of the respondents answer 3 were (50.0%) but 1 were (25.0%) but 2 were (16.0%) while 4 were (9.0%) .

Table 5: Working hours of the Red Crescent paramedic's participant

	N	%
Worked >12 h		
Yes	130	65
No	70	35
Reasons Lack of manpower		
Yes	142	71
No	58	29
Busy shift		
Yes	30	15
No	170	85
Disaster		
Yes	82	41
No	118	59
The need to improve		
Yes	142	71
No	58	29
Areas to improve		
Manpower	46	23
Courses and training	154	77
Coordination with agencies	50	25
Specific roads	30	15
Resources	20	10
Appropriate accommodation	106	53
Unknown	88	44

Regarding the distribution of working hours of the Red Crescent paramedic's participant regarding worked >12 h majority of the study groups answer Yes were (65.0%) followed by No were (35.0%), regarding reasons Lack of manpower most of the participant answer Yes (71.0 %) while No were (29.0%) , regarding the busy shift the majority of the respondents answer No were (85.0%) while Yes were (15.0%) , while Air ambulance were (10.0%) while do nothing were (3.0%), regarding the number of providers in ambulance the majority of the respondents answer 3 were (50.0%) but 1 were (25.0%) but 2 were (16.0%) while 4 were (9.0%), regarding the Disaster the most of the participants answer No were (59.0%) while Yes were (41.0%) , regarding the need to improve the majority of the respondents answer Yes were (71.0%) while No were (29.0%) , regarding areas to improve the most of the participants answer Courses and training were (77.0%) while appropriate accommodation were (53.0%) ,while unknown were (44.0%), but Coordination with agencies were (25.0) while Manpower, were (23.0%) but specific roads were (15.0%) but the Resources were (10.0%)

Discussion

This is a qualitative study that investigated factors affecting the performance of Red Crescent paramedics in Makah, Saudi Arabia. The results indicated that working as a

paramedic makes them feel honored regarding the obstacles they face. Saving lives and helping in emergencies helps them believe how important their job is and they feel proud to be a part of it. regarding the socio-demographic show among the participant regarding age majority of the study groups from the 35-45 years were (34.0%), the gender many of the respondents were male (77.0 %), while nationality the majority of the respondents Saudi were (89.0%), the marital status the majority of them single were (34.0%), years of experience the most of the participants answer ≥ 20 were (47.0%), the salary satisfaction the most of participant 8000-15,000 were (45.0%). (See table 1)

However, the study identified many causes of disruptions that paramedic's experience, which lead to serious consequences. The first obstacle was shown to be the lack of societal awareness about the performance of the Red Crescent. This factor has been split into three aspects. First, the lack of proficiency when calling regarding an emergency, as paramedics have experienced either people exaggerating the incident, or would provide little detail about the incident. This absence of consideration when calling for an ambulance was significant, affecting the overall experience of the paramedics.[35] in our study show that regarding the receiving vaccinations the majority of the respondents answer Yes were (69.0%), the Pre hospital trauma life (PTHLS) the most of the participants answer No were (75.0%) , regarding type of vaccines received the most of the participants Meningococcal vaccine were (96.0%) while Influenza vaccine were (88.0%), but Chickenpox vaccine were (65.5) while Measles, mumps and rubella vaccine were (35.0%) (See table 3)

Second, expressed the factors the performance of Red Crescent in case participants are paramedics and emergency medical technicians the paramedics expressed pressure due to the crowds surrounding the incident locations. This obstacle was also represented in the study performed in Jeddah, Riyadh, and Dammam. The study showed that the obstacles that paramedics face during duty are traffic congestion, involvement of bystanders and family members, lack of trust from family members and injured people, an inability to be independent when making decisions, and injured people refusing to be treated.[17] Moreover, studies have indicated that patients' families rely heavily on their family physicians, which causes distrust toward medical professionals in general.[18]

in our study show that factors the performance of Red Crescent regarding decontaminate the ambulance majority of the study groups answer Yes were (47.0%), regarding administer medications most of the respondents answer Yes (69.0 %), regarding the plan to provide care to life threatening patient in closed roads the majority of the respondents treat on site were (51.0%) , while Air ambulance were (10.0%), regarding the number of providers in ambulance the majority of the respondents answer 3 were (50.0%). (See table 4)

Third, the participants reported interruptions and the interference with paramedic procedures by the crowd to be their biggest challenge and working hours of the Red Crescent paramedic's. This is especially true when the people who interfere have no medical experience. Similarly, studies have explained that crowding adversely affects the accuracy of care delivery.[19] These complications are mainly caused by the low social awareness of the ambulance and its procedures. A study by Modi et al. (2018) [33] agreed with our findings; they found that there is a general lack of awareness among people regarding the "emergency line" scope and services in India. Furthermore, research has mentioned that the contribution of primary healthcare providers and family physicians' advanced promotion of social awareness would reduce social

ignorance toward emergency procedures.[25] However, it is clear that raising social awareness regarding this topic and restricting policies and regulations can reduce those complications and ease the procedures of the Red Crescent paramedics.[34] Nevertheless, the majority of participants in this study expressed concern about the long distance and the road quality as Saudi Arabia is a considerably large country.[23] in our study show regarding worked >12 h majority of the study groups answer Yes were (65.0%), regarding reasons Lack of manpower most of the participant answer Yes (71.0 %), regarding the busy shift the majority of the respondents answer No were (85.0%), while Air ambulance were (10.0%), regarding the number of providers in ambulance the majority of the respondents answer 3 were (50.0%), the need to improve the majority of the respondents answer Yes were (71.0%), areas to improve the most of the participants answer Courses and training were (77.0%) (See table 5)

Conclusion

This study offers important recommendations for improving the Red Crescent system's preparedness during Saudi Red Crescent Society emergency service, This study investigated the factors affecting Red Crescent paramedics and the delivery of health care services, which include more performance of Red Crescent paramedics coverage as well as improved providers' qualifications and level of training. Furthermore, this study provides a recommendation to change the scope of practice to treat and release in the majority of cases rather than unnecessarily transport to the hospital. This study urges the importance of collaboration between agencies to facilitate the Red Crescent system's. The successful planning strategies will provide the Red Crescent system's planners a blueprint for mass gathering preparedness. This study offers advantageous lessons for policymakers, experts, and academics surrounding challenges that the Red Crescent paramedics in Makah at Saudi Arabia experience when implementing their service. The main challenge identified was the lack of awareness in society, especially when dealing with distressing situations, the absence of proficiency, and the lack of information when calling for an ambulance. Furthermore, the paramedics also expressed concerns when dealing with the surrounding crowds .

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