



## Factors Affecting Emergency Medical Service Providers Performance in Makkah Region during 2018

Shammah, Ahmed Ali <sup>1</sup>; Nasser B<sup>1</sup>, Almalki M. H<sup>2</sup>, Alormaty A. T<sup>2</sup>, Algamdi A. S<sup>2</sup>, Turkistani A. A<sup>2</sup>, Alobeidi A. A<sup>2</sup>, and Alhashmi A<sup>2</sup>

<sup>1</sup>Department of Clinical Technology, Faculty of Applied Medical Science, EMS, Umm Al-Qura University, Saudi Arabia

<sup>2</sup>Emergency Medical Service Student, EMS, Umm Al-Qura University, Saudi Arabia  
[ahghamdi2@gmail.com](mailto:ahghamdi2@gmail.com)

**Abstract: Background:** Good performance is very important to the patient because if the workers are happy and satisfied with their work they will be highly motivated to perform the best of their ability to provide the healthcare. **Objective:** To Identify the most factor s affecting the emergency medical service providers in Makkah region during 2018. **Methods:** 100 emergency medical service providers (EMS) were randomly selected from Saudi Red Crescent Authority and hospitals in Makkah, who filled questionnaires about the factors affecting their performance that was analyzed by using manual analysis. **Results:** The most factor affecting EMS providers in Makkah is stress, which was 46%, then the salary, which was 44%, then motivation which was 41%, then job satisfaction which was 39%, then the communication which was 38%, then the time of work which was 37%, and the lowest factor affecting EMS provider is physical security which was 35%. **Conclusion:** The findings from this research conclude that stress, motivation, communication, time of work, salary, job satisfaction, and physical security can affecting the performance of EMS providers in Makkah, and the most factor can affect EMS providers is stress.

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### 1. Introduction

Emergency medical service provider (paramedics and technicians) EMS is the most important component of the healthcare in the community. When called to action, the paramedic and emergency medical technician should perform in very hazardous and dangerous environments to provide care to the sick and injured person. They must assess the patient and perform lifesaving interventions, immediately, without error, or the patient may die. He must effectively lead a team of emergency medical responders to provide the best care for the patient, in critical patients; they must accomplish this in 10 minutes or less. EMS provider must be focused and work without mistake even if it was a small one, it may put the patient at high risk. And if EMS providers not focused they cannot performing successfully interventions, procedure, managing the situation, properly assessing patient, and performing complex skills. We select Makkah city in this research for several reasons, firstly, for large population number in this city, secondly, many Muslim visitors to this city come for hajj and omrah season, thirdly, numbers of EMS provider versus the number of people very deficient. There are many definitions for performance, for

example, Meyer [23] defined performance as “what people and machines do: it is their functioning and accomplishments”. But when Berman [4] defined performance, he emphasized both “effective and efficient use of resources to achieve results. Good performance is very important to the patient because if the workers are happy and satisfied with their work they will be highly motivated to perform the best of their ability to provide the healthcare.

#### **Study Objective:**

To identify the most factors affecting the emergency medical service providers in Makkah region during 2018.

#### **Research Question:**

What are the factors affecting the emergency medical service providers in Makkah region during 2018?

#### **Literature Review**

##### **Stress:**

There are many definitions for stress. They include the following: A physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation [24]. Also a

state resulting from a stress; especially: one of bodily or mental tension resulting from factors that tend to alter an existent equilibrium [24]. A demand that exceeds the capacity of the organism to respond [27]. Orasanu and Backer [27], in discussing stress in military performance, categorized stressors in two categories: physical/environmental or psychological. Physical/ environmental stressors include sleep deprivation, fatigue, noise, temperature, crowding, isolation, or any stressors that can have an effect on all subjects in a physical space. They are assumed to have primary and direct physiological effects. Psychological stressors are broken down into three categories: those that signal danger or threat of physical or psychological harm. Those that represent limitation of cognitive or physical capacity to meet a demand, such as high information load, workload, lack of control over a situation, ambiguity, and time pressure.

Those that include social factors, which reflect interactions with another person, either in a personal sphere such as with family or friends, or in a job context, such as with members or with leaders. Stress can be good for person by stimulate the body to secretion of hormones. These hormones can activate the body to fight or flight. When stress is begins uncontrollable the person begins to experience a decrease in performance level causing a decline in productivity.

#### **Motivation**

DeCenzo and Robbins [10] define a motivation as the willingness or desire to do something. Conditioned by the activity or the ability to satisfy some needs. Motivation increases the job involvement by making the work more meaningful and interesting as well as the fact that it keeps the employees more productive and improves their subsequent job performance [17]. The employee motivation is obviously important. In fact, it is one of the most important and essential factors for the achievement of employees, and ultimately the organizational targets and goals [5]. Ololube [26] published that motivation can be classified as intrinsic and extrinsic motivation. Intrinsic/internal motivation and extrinsic or external motivation. Amabile [1] elaborates further, by saying the followings:

Individuals are intrinsically motivated when they seek enjoyment, interest, satisfaction of curiosity, self-expression, or personal challenge in the work. Individuals are extrinsically motivated when they engage in the work in order to obtain some goal that is apart from the work itself. So, motivation can encourage people to work better, so this will lead to better performance and higher productivity. The relationship between motivation and performance not something new it is studied in the past like Maslow

(1943), Herzberg (1959), and Vroom (1964), those researchers focused on motivation and the relationship between motivation and performance.

#### **Communication**

Another important factor affecting the performance is communication. Communication refers to the act, contact or double interacts among the individuals in delivering information, meanings and understanding [12]. Several professionals have expressed mixed opinions on communication competency used as a predictor of employee success [30]. The importance of communication cannot be denied for organizations as applied to their ability to influence the bottom-line- as found in growing evidence linked with work productivity [7]. Communication is the cornerstone of team interaction, without which team would not able to share information, knowledge, and develop solutions to problems. Communication is viewed as functional for team performance in that it allows information and critical resources to be share [2]. Communication is very important for the patient to improve the quality of care. The communication with your partner or the patient is essential. The communication with your partner can increase the team work which lead to improve the quality of care. The communication with the patient can help you to gathering more information about his or her condition which lead to reduce medical error and provide good care.

#### **Time of work:**

Time to work is a crucial element of a performance management system with performance measurement monitoring that shows where change is required and which will in turn produce the desired behavior that will produce improved performance [20]. The most common problem from increase time of work is fatigue and sleepiness. Sleepiness refers to a tendency to fall asleep, whereas fatigue refers to an overwhelming sense of tiredness, lack of energy, and a feeling of exhaustion associated with impaired physical and/or cognitive functioning [31]. Long hour of work affecting EMS providers performance causing fatigue that result from mental or physical exhaustion or illness. Include not taking enough time of rest before a shift and difficulty adapting to the patterns of shift work, as well as the intensive work demands placed on EMS providers during a shift, fatigue tends to be worse at the end of a shift and during night shifts. During night hours the brain prepares the body for sleep and EMS providers on night -shift must fight this natural urge. The fatigued brain cannot process as many cognitive functions as non-fatigued brain and decision-making will slow down, which is why fatigue is dangerous in pre-hospital setting. Fatigue from long work hours, sleep deprivation, and circadian disruption has been recognized as a substantial cause

of serious human errors [33]. In the context of health care, policies and procedures aimed at reducing the incidence of medical errors have either been voluntarily implemented by health care organizations or imposed by regulators. In medical education, for example, the Accreditation Council for Graduate Medical Education (ACGME) implemented duty hour restrictions in 2003 for all ACGME - accredited residency programs, following concerns about deaths associated with medical errors in US hospitals [25]. After research done by [9] found that performance of paramedic become weaker in the end of a long shifts compared to their own performance when working shorter shifts and nightshift.

#### **Salary:**

In a Salary is defined as the money that a person receives (usually every month ) for the work he/she has done. Salary includes cash and non-cash payment. In non-cash payment a worker can get a house and car for work and some other on-monetary benefits. Performance-related-pay can improve worker performance through direct incentive effects as workers expend more effort creating the outputs that are rewarded through pay, and through worker sorting since more able workers have more to gain from a pay system which rewards them according to their performance [18]. in study done by [29] The result is disappointing performance and poor service quality, and pay is a primary cause of poor performance.

#### **Job Satisfaction:**

Job satisfaction is important for every worker to improve his performance. Locke's [21] description of job satisfaction as a "pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. The appraisal involves various elements related to the job such as salary, working conditions, colleagues and boss.

The close relationship between job satisfaction and job performance is not something that has arisen recently addressed [2], [13]. There is a strong relationship between job performance and job satisfaction. Job satisfaction is very important for every worker, because if worker are satisfied and happy that will increase the productivity and lead to good patients care. A person's characteristics can affected the performance By several factors. These personal characteristic include the following:

- Gender: studies have shown women to have greater job satisfaction than men, although also greater levels of anxiety and depression [35].
- Age: job satisfaction is typically highest among older employees, with some studies high job satisfaction among the youngest employees, declining through the middle years, before rising again with age [8].

#### **Physical security:**

The physical security of the job includes factors such as the safety of work practices and the adequacy of equipment as well as the pleasantness of the work environment. Poor physical security may have a direct effect on Performance, but may also have an indirect impact, where poor work conditions impact on physical health, which in turn is also likely to affect Performance [35]. The safe work practices is very important for a good performance. There is unsafe work practices in emergency medical service department like lifting and moving which can do injury for the rescuer lead to inability to work in the field again. Several studies have provided evidence that poorer working conditions are associated with lower overall job satisfaction. Huang and van der Vliert [15], using employees' ratings of factors such as temperature and ventilation.

## **2. Methodology**

### **Research design:**

This study was a descriptive research design where is survey method used depending on the point of view of EMS provider. This study was conducted in 2018.

### **Study population:**

The study targeted EMS provider even so paramedics or emergency medical technician in Saudi red crescent or in hospital. At the time of study, there were 19 EMS stations in Makkah. We randomly selected three EMS providers from each stations, and the rest from hospital.

### **Sampling size:**

The study sampling was a simple random sampling it was involved 100 persons from EMS provider in Saudi red crescent and hospitals.

### **Data collection:**

The data was collected by using self-administered questionnaire, in questionnaire there are 7 questions for 7 factors and we used scale for answers. The questionnaire took from 5 to 10 minutes. The questionnaire was distributed to Saudi red crescent centers and the hospitals in Makkah.

### **Data analysis:**

In data analysis which obtained from questionnaire that indicate the percentage rate of these factors on emergency medical service providers in Makkah. The data are processed by manual analysis of data. The scale 1 2 3 4 5

Stress	10%	5%	21%	18%	46%
Motivation	19%	7%	23%	11%	41%
Communication	8%	12%	32%	10%	38%
Time of work	11%	4%	36%	12%	37%
Salary	6%	11%	20%	19%	44%
J job satisfaction	4%	12%	25%	20%	39%
Physical security	8%	17%	29%	11%	35%

### 3. Results

The most factor affecting emergency medical service provider in Makkah is stress which was 46%, then the salary which was 44%, then motivation which was 41%, then job satisfaction which was 39%, then the communication which was 38%, then the time of work which was 37%, and the lowest factor affecting emergency medical service provider is physical security which was 35%. All respondents are male, 35 respondents are paramedic (35%) and 65 respondents are emergency medical technician (65%). Most of respondents are married 73% or 73 respondents remarried and 27% or 27 respondents are single.

### 4. Discussion

The study was about the factors affecting performance of emergency medical service providers in Makkah. And to know to which extent the most factor affecting performance of emergency medical service providers in Makkah. Based on the data results the stress was the most factor affecting the performance. The stress known as a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation [24].

Stress is harmful to physical and mental health like anxiety, depression, and fatigue. The worker who is over stress may be unable to motivate his self or has dissatisfaction on job. There is a positive relationship between salary and performance which can increase the performance of worker. Based on data results about 44% of respondents said the salary affecting performance significantly. Motivation is an important factor for the performance of worker. There are factors that influence the motivation like job satisfaction and salary. Based on data results about 41% of respondents said the motivation affecting the performance significantly. Job satisfaction is an important factor for the performance. Based on data results about 39% of respondents said the job satisfaction affecting the performance significantly. Communication is considered an important factor for the performance. But based on data results only 38% of respondents said the communication affecting the performance significantly. Increase the time of work can cause fatigue and sleepiness which can increase the chance of medical error. But based on data results only 37% of respondents said the time of work affecting the performance significantly. The unsafe work practices like lifting and moving can decrease the performance. But based on data results only 35% of respondents said the physical security affecting the performance significantly.

### Recommendation

Future researcher can expand this study by increasing the number of target groups and investigations

for other factors that can affect emergency medical service providers.

### Conclusion

The findings from this research conclude that stress, motivation, communication, time of work, salary, job satisfaction, and physical security can affect the performance of emergency medical service providers in Makkah. The data results show that stress, salary, and motivation can significantly affect the performance of emergency medical service providers, while job satisfaction, communication, time of work, and physical security can moderate affecting the performance. EMS providers should receive courses about stress management to learn how to deal with it.

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