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Research Article

THE IMPORTANCE OF AMBULANCE TRANSPORTATION IN REDUCING THE NUMBER OF DEATHS IN HEALTH FACILITIES

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Abstract:

The aim of the study is to the importance of ambulance transport in rescuing dangerous cases and delivering them to hospitals safely, how to deal with dangerous cases by ambulance transport, what procedures must be followed with the most dangerous cases by ambulance transport, what is the role of the paramedic in saving people's lives. A questionnaire was conducted via Google Drive, the questionnaire was distributed via the social media network (where 750 questionnaires were distributed) to mobile groups, and responses to 700 questionnaires were obtained via email.

Keywords: *the importance, ambulance transportation, reducing the number, deaths, health facilities.*

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INTRODUCTION:

Emergency medical service is one of the most important health care services as it plays a vital role in saving people's lives and reducing the rate of mortality and morbidity. The importance and sensitivity of decision-making in the emergency medical services (EMS) field have been recognized by operations research scientists, EMS planners, and healthcare practitioners who studied many problems arising in the management of EMS systems since the 1960s. Among the major attributes, delay in reaching an appropriate health facility is one of the prime factors contributing to a high number of deaths in emergencies. This normally happens either due to a lack of readily available and affordable transport facilities or inaccessibility for which people fail to access institutional health services.^(1,2) The total life years lost due to trauma accounted for thirty percent of all life years as estimated by the National Trauma Institute in the United States.⁽³⁾ Ischemic heart disease and stroke which require prompt emergency services are the leading cause of death due to impediment services of ambulances as estimated by the World Health Organization in 2016⁽⁴⁾ Prompt & and effective transportation of patients from the site of emergency to the hospital's emergency department seems simple but in actuality is a complex process⁽⁵⁾ For the personnel of ambulatory and emergency services administering their services in the minimal time execute their ultimate accomplishment, i.e. reaching the site and transporting the patient to healthcare institution by ambulance in the golden hour where the human being endangered life can be saved⁽⁶⁾. Enhancing pre-hospital care for the patients suffering emergency or trauma can help in reducing morbidity & and mortality⁽⁷⁾ Poor methods of transportation, lack of infrastructure, lack of public awareness about recognizing emergencies, and untrained healthcare professionals are some of the major problems seen in developing countries⁽⁸⁾ Poor quality & and under-maintained medical equipment, unhygienic conditions of patient compartment in ambulance, and delay in reaching the site of emergency are the few factors leading to compromising of patient safety in the ambulances⁽⁹⁾ MDG-4 & 5 (Millennium Development Goals) meant for reduction in child and maternal mortality could not achieved till now because of flaws in quality ambulatory care services needed for maternal and child care at appropriate time and place^(10,11) The transportation of referred pregnant women to appropriate health facilities and end-route stabilizing care plays a pivotal role in preventing maternal deaths in low-income and middle-income countries⁽¹²⁾ Effective emergency care can avert deaths from acute respiratory and diarrheal conditions and from

noncommunicable diseases such as hypertension and other cardiovascular problems. Keeping a small pharmacy for first aid at home, in the car, or in the workplace is important and necessary. Some basic tools that are recommended to be in the first aid bag, whether at home or in the car, include sterile bandages of different sizes. breathable medical tapes. triangular bands to hold bandages or to hang from the neck to support the arm. medical Cotton. calamine fat, to treat skin problems, sunburns, and stings. analgesic pills (such as aspirin or before starting the rescue operation, the paramedic must take the following steps: request urgent medical assistance and evacuate the injured from the place of danger. starting to provide first aid for the most dangerous cases, such as bleeding, respiratory arrest, or major accidents (the presence of a large number of injured people), you must begin sorting the injured according to the law in force in the country (the state plan for dealing with major accidents). There is, for example, but not limited to the British plan for dealing with Major accidents and the American plan for dealing with major accidents, and each plan differs from the other in terms of procedures and classification of the injured. Continue examination and first aid until the doctor arrives or the case is transferred to the hospital. Do not move the injured person from his place if there is a possibility of fractures in the spine or rib cage unless he is removed from danger and placed on a straight stretcher.

2-MATERIAL AND METHODS:

This study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in May 2023, and the study ended with data collection in October 2023. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (The importance of ambulance transportation in reducing the number of deaths in health facilities), this kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation⁽¹³⁾, And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages⁽¹⁴⁾. A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation

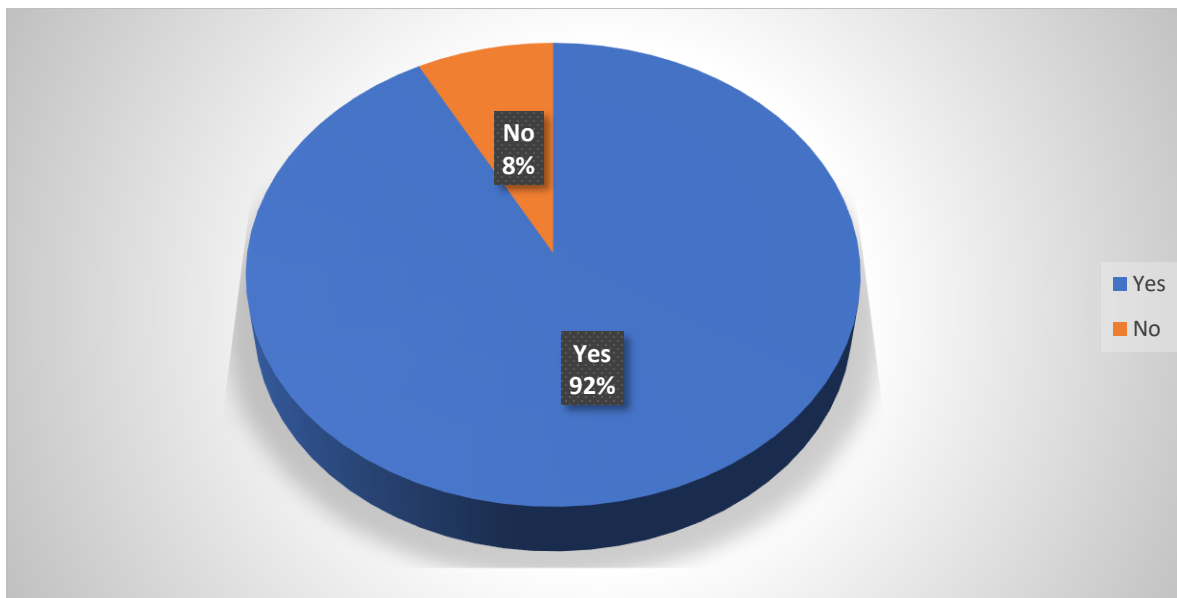
completely disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of sixteen questions, and all were closed. The online approach has also been used to generate valid samples in similar studies in Saudi Arabia and elsewhere ⁽¹⁵⁾

3- RESULTS:

The percentage of participants in the research questionnaire was 98%, and those who refused were 2%. Their ages were as follows: 20-29, 19.8%, 30-39 years old, 38.6%, while 40-49 years, 32.7%, and 50-60 years old. It was 8.9%, while the percentage of males was 76.2%, and the percentage of females was 23.8%. Their nationalities were 77.2% Saudis and 22.8% non-Saudis. Their occupations were as follows: 9% students, 8% careerists, 40% government employees, 22% private sector employees, 5% freelancers, 16% housewife. Their educational status was as follows: 0% cannot read or write, 2.8% hold a primary certificate, 7% hold an intermediate certificate, 31.7% hold a high school diploma, 52.5% hold a university degree, 5% hold a master's degree, and 1% hold a doctorate degree. When moving to the questionnaire questions: The first question is: In your opinion, do the ambulance technicians have to be experienced and trained to treat all cases? The answers were yes 97% and no 3%. As for the second question: In your opinion, does the ambulance technician evaluate injuries and provide emergency medical care to the sick, wounded, and injured? Yes, 97% and no 9%. The third question: In your opinion, does the ambulance technician evaluate injuries and provide emergency medical care to the sick, wounded, and injured? Yes, 96.9%, and no 3.1%. The fourth question: Do you think the paramedic technician deals with all medical problems, including simple health care? The answer was yes 92% and no 8%. The fifth question is about the paramedic technician dealing

with serious, life-threatening cases. Yes 92.1%, No 7.9%. The sixth question about the paramedic technician who deals with providing a correct medical assessment of the health condition to provide appropriate care for each case? Yes 92%, No 8%. The seventh question about the paramedic technician who deals with providing a correct medical assessment of the health condition to provide appropriate care for each case? Yes 93.9% and no 6.1%. Question 8: About driving the mobile intensive care unit to specific locations following instructions from the emergency medical dispatcher? Yes 87% and No 13%. Question 9: Leading the mobile intensive care unit to designated locations following instructions from the emergency medical dispatcher? Yes 90% and no 10%. Question 10: Who performs first aid, diagnostic procedures, and treatment in "emergency situations," such as stomach suctioning, airway management, and heart monitoring while riding in the ambulance? Yes 93.9% and no 6.1%. Question 11: About transporting a patient on a stretcher and ambulance using a backboard or other device to stabilize the spine? Yes 96.9% and no 3.1%. Question 12 Who operates equipment such as electrocardiograms (EKG's), external defibrillators, or bag valve mask resuscitation devices in advanced life support environments? Yes 94.1% and no 5.9%. Question thirteen: About giving medications either orally or by injection, or performing intravenous procedures under the supervision of doctors? Yes 90.1% and no 9.9%. The fourteenth question about disinfecting the inside of the ambulance after treating a patient with a contagious disease and informing the competent authorities of the case? Yes 98% and no 2%. The penultimate question is about coordinating work with members of the emergency medical team, such as police or fire department personnel? Yes 95% and no 5%. The last question about dressing wounds and injuries? Yes 98% and no 2%. (figure No.1)

Figure No.1: Through the opinions and directions of the participants, the tricks of ambulance transport and treatment of serious cases threatening death



4-DISCUSSION:

From the answers of the participants in the research questionnaire, we find that they greatly praise and appreciate the role of ambulance transport in reducing the number of deaths through their arrival in record time despite traffic congestion and their implementation of ambulance procedures for the injured, which through these procedures they reduced injuries and deaths.

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REFERENCES:

1. Das S, Desai R. Emergence of EMS in India. 2017; 2017 (Sat).
2. Pasha I. Ambulance management system using GIS. Universitetsbibliotek. 2006
3. Majdan M, Plancikova D, Maas A, et al. Years of life lost due to traumatic brain injury in Europe: a cross-sectional analysis of 16 countries. *PLoS Med.* 2017;14(7): e1002331
4. Gomes M, Begum R, Sati P, et al. Nationwide mortality studies to quantify causes of death: relevant lessons from India's Million Death Study. *Health Aff.* 2017;36(11):1887–1895
5. Channa R, Jaffrani HA, Khan AJ, Hasan T, Razzak JA. Transport time to trauma facilities in Karachi: an exploratory study. *Int J Emerg Med.* 2008;1(3):201.
6. Sharma M, Brandler ES. Emergency medical services in India: the present and future. *Prehospital Disaster Med.* 2014;29(3):307–310.
7. Babiarz KS, Mahadevan SV, Divi N, Miller G. Ambulance service associated with reduced probabilities of neonatal and infant mortality in two Indian states. *Health Aff.* 2016;35(10):1774–1782
8. Razzak JA, Kellermann AL. Emergency medical care in developing countries: is it worthwhile? *Bull World Health Organ.* 2002;80:900–905.
9. Joshipura MK, Shah HS, Patel PR, Divatia PA, Desai PM. Trauma care systems in India. *Injury.* 2003;34(9):686–692.
10. Hohlagschwandtner M, Husslein P, Klebermass K, Weninger M, Nardi A, Langer M. Perinatal mortality and morbidity. *Arch Gynecol Obstet.* 2001;265(3):113–118.
11. Sharma M, Brandler ES. Emergency medical services in India: the present and future. *Prehospital Disaster Med.* 2014;29(3):307–310.
12. John AE, Nilima Nilima, Binu VS, Unnikrishnan B. Determinants of antenatal care utilization in India: a spatial evaluation of evidence for public health reforms. *Public Health.* 2019 Jan 1;166:57–64.
13. Alserahy, Hassan Awad, et al (2008), *The thinking and scientific research*, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition

14. Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon-Amman.
15. Kadasah, N.A.; Chirwa, G.C.; et al. Knowledge, Attitude, and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Front. Public Health* 2020, 8, 217.