

# The Relationship Between The Readiness Of Ambulances And The Level Of Services Provided In Ministry Of Defense Hospitals

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## Abstract

Emergency medical services (EMS) are a key component of contemporary healthcare systems, especially in the management of life-threatening and time-sensitive conditions. The effectiveness of such services not only depends on the quality of care that is delivered within hospitals, but also on the effectiveness of pre-hospital interventions, during which ambulance services can be used as the first point of contact with patients. Here, ambulance preparedness becomes a crucial determinant that directly impacts the timeliness and success of emergency response and patient outcomes.

Ambulance preparedness is not simply a question of vehicle availability, it is a demonstration of the overall level of preparedness which includes the sufficiency of the medical equipment, the dependability and maintenance of ambulances and the competency of the emergency staff. Well equipped ambulance system guarantees quick responses to emergencies, appropriate onsite treatment, and safe transportation of patient to healthcare facilities. Conversely, any shortage in preparedness like delay in response time or inadequate relevant resources could adversely impact patient conditions and exert further pressure on hospital emergency departments.

## Introduction

In the context of hospitals, especially in the hospitals of the Ministry of Defense, the interaction between ambulance services and emergency departments are critical towards efficient healthcare delivery. These hospitals frequently work in organized and high-needs setting, where speed, precision, and coordination are paramount. The transformation between pre-hospital care and in-hospital treatment is a sensitive step in patient care process but its success is largely dependent on the preparedness and integration between ambulance services and hospital systems.

Since emergency care is a critical area of concern, it is of utmost importance to understand the relationship between ambulance preparedness and the extent of services offered in hospitals. Understanding the role of preparedness in ambulance services in affecting the quality and efficiency of healthcare delivery can help to improve emergency systems, optimize the use of resources, and improve patient satisfaction and outcomes..

## Theoretical Framework

The readiness of ambulance is commonly considered as one of the pillars of an effective emergency medical system, as it directly means the system ability to respond to emergency situations, urgent and life-threatening, promptly, effectively, and precisely. Theoretically speaking, the concept of readiness is not a static or isolated one, but is a dynamic and multidimensional concept that develops through the interaction of organizational structures, resource allocation, and operational strategies. It represents how well the emergency medical service is ready to operate at its best under different degrees of demand and pressure especially in high risk and time conscious conditions.

The theoretical knowledge of the ambulance preparedness is usually based on the systems theory, which perceives healthcare delivery as a connected system of components that must operate together

in order to deliver the best results. In this context, ambulance services can be considered a very crucial subsystem because it facilitates the connection between the place where the emergency has occurred and the hospital where the victim may be taken. Any derailment or lack of efficiency in this subsystem can have a ripple effect on the whole healthcare delivery process. Thus, preparedness is conceptualized as how the system can sustain a certain degree of stability, adaptability, and responsiveness amid uncertainty and variable demand.

Further analysis of ambulance preparedness shows that it involves intricate combination of operational, technical, and human factors. Operational readiness shows how ambulances are deployed and available strategically to ensure that the coverage of the emergency has both sufficient coverage and a geographical optimization of that coverage. This factor is closely associated with the resource management theories, which underline the significance of effective allocation and utilization of the scarce resources to meet the demands of the services. Technical readiness, conversely, refers to how reliable and functional ambulance vehicles and medical equipment are and how they help promote service efficiency. The introduction of the human resource preparedness brings critical dimension which concentrates on the competency, training and decision making capabilities of emergency personnel that is critical in dealing with various and unpredictable medical situations.

Besides these dimensions, communication preparedness is a key aspect of improving coordination and integration in the emergency medical systems. Proper communication channels enable real-time information flow among ambulance teams, dispatch centers, and hospital emergency departments, thus, reducing response time and improving clinical outcomes. According to theoretical frameworks of communication in healthcare, the issue of timely and accurate flow of information is critical in making decisions, especially in emergency situations where a delay in information flow could be disastrous.

In line with the idea of ambulance preparedness, the degree of healthcare services, which are delivered at the hospitals, in particular, in emergency departments, is a baseline indicator of the healthcare quality, as well as the adequacy of the healthcare system. The idea is strongly framed in the service quality theories which conceptualize the healthcare delivery process as a multidimensional process entailing both technical and interpersonal aspects. The level of service is also defined by the efficiency, responsiveness and consistency with which care is delivered to patients. The skill to provide high quality services is determined largely by coordination and availability of resources and the performance of the staff in emergency situations where time is very sensitive and uncertainty is eminent.

The level of healthcare service is also directly linked to the performance measurement models that focus on effectiveness, efficiency, accessibility and patient-centeredness. These theories point out that quality healthcare services are denoted by timely services, correct diagnosis, correct treatment, and good customer experience. The fact that emergency departments deal with patients whose inflow cannot be predicted, and whose conditions are severe and may demand immediate treatment, only exacerbates the pressure of maintaining high levels of service within the departments.

The connection between ambulance preparedness and the amount of services delivered can be theoretically explained by the concept of continuity of care which focuses on the smooth transition between various phases of healthcare delivery. The first stage of such continuum is pre-hospital care which is represented by ambulance service and the second stage is hospital-based care. The success of the transition between the stages is paramount in guaranteeing the best patient outcomes. Having a high degree of ambulance preparedness enables efficient patient transfer, proper communication of clinical information and improved preparedness of hospital staff to receive and treat patients, thus increasing the overall level of service delivery.

Moreover, this relationship can be interpreted based on input-process-output models that are popular in healthcare management. In this regard, ambulance preparedness can be viewed as the most important input to consider that affects the processes that go on in the emergency departments including triage, diagnosis and treatment. In turn, these processes define the outputs, which are patient outcomes, the quality and level of satisfaction. Any failure in the input stage, like inappropriate preparation, may interfere with the whole process and have an adverse impact on the final results.

The other significant theoretical approach is the concept of operational efficiency which concerns the optimum utilization of resources to produce desired results with minimal wastage and time wastage. The ambulance preparedness will help in achieving operational efficiency by ensuring that the

emergency response is timely and well coordinated, thus reducing the number of bottlenecks and enhancing the workflow in hospitals. The efficient operation of ambulance services will assist in streamlining patient flow into emergency departments, reduce overcrowding, and improve overall work of healthcare systems.

In addition, the fact that ambulance services are being integrated with hospital systems can also be discussed in the context of the overall principle of healthcare system integration that focuses on collaboration and coordination between various service providers. The integrated systems have a better chance of attaining greater levels of efficiency and effectiveness, since it is less fragmented and enhances communication. In this respect, ambulance preparedness is a vital enabler of integration that ensures that pre-hospital and in-hospital services are integrated into one cohesive unit as opposed to being separate components.

Finally, the constructs of ambulance preparedness and the degree of healthcare delivery are closely intertwined constructs that, together, determine the performance and quality of the emergency medical systems. Several theoretical frameworks, such as those of systems theory, models of service quality, and models of operational management, support this idea that further work on enhancing readiness in ambulance services can potentially result in substantial improvements in healthcare delivery. The knowledge of this relationship can give valuable insights to policymakers and healthcare administrators who want to optimize emergency care systems, improve resource utilization, and get better patient outcomes..

### **Problem Statement**

Although there is a dire need to have the emergency medical services, most of the healthcare systems still grapple with issues associated with the preparedness and performance of the ambulance services. Ambulance preparedness as one of the main aspects of pre-hospital care is a crucial factor in estimating how fast and efficient the initial medical attention and ambulance transportation of patients to medical facilities are. Nonetheless, the difference in the degree of readiness, including the delay in the response time, insufficiency of equipment, or lack of staff training may jeopardize the performance of emergency response and have a detrimental effect on patient outcomes.

When it comes to hospitals of the Ministry of Defense, where high-demand and strongly organized environments are frequently applied, the necessity of effective coordination of the work of ambulance services and hospital emergency departments becomes even more acute. Any weakness or inefficiency in ambulance preparedness can result in delays in patient admission, pressure on emergency departments and quality of healthcare services rendered. Moreover, the absence of continuation between pre-hospital and in-hospital care can interfere with the continuity of care and undermine the overall effectiveness of the healthcare system.

Despite the fact that the contribution of previous works to the research problem is apparent (i.e., the components of the emergency medical service and the quality of the provided services in the hospital setting, specifically in the Ministry of Defense hospitals), there is still a need to understand the particular relationship between ambulance readiness and the level of the provided services in the hospital setting, specifically in the hospitals of the Ministry of Defense. Determining this relationship is crucial to emphasizing the possible areas of improvement, improving the coordination of various elements of the healthcare system, and supporting the evidence-based decision-making process.

Thus, the issue of the study resides in investigating the level to which the ambulance preparedness is linked to the level of healthcare services that are offered in the hospitals of the Ministry of Defense, as well as in determining whether the service quality and efficiency can possibly be improved due to the increase in ambulance preparedness.

### **Research Questions**

In this study, the following key question will be answered:

Which is the correlation between ambulance preparedness and the amount of services offered in hospitals in the Ministry of Defense?

To answer this major question, the paper discusses the following sub-questions:

How well are ambulance services at the Ministry of Defense hospitals well equipped to handle emergency situations?

What are the effects of various aspects of ambulance preparedness on the efficiency and quality of emergency department services?

How do the healthcare services offered in hospitals of the Ministry of Defense perceive themselves?

Do ambulance readiness and the level of healthcare services provided have a statistically significant relationship?

### **Research Hypotheses**

According to the theoretical background and the research problem, the research hypothesizes the following hypotheses

The level of services delivered in hospitals of the Ministry of Defense have a statistically significant relationship with ambulance readiness

There is a statistically significant effect of ambulance readiness on the level of healthcare services provided

There exists a positive correlation between ambulance preparedness and quality of the delivered healthcare services in such a way that the higher the preparedness, the higher is the quality of the provided healthcare services

### **6. Concepts and Definitions**

The term ambulance readiness is the focal point of this research and is a general term describing the general preparedness of ambulance services to respond to emergency situations. This preparedness is not just restricted to the physical presence of ambulances, but also extends to a variety of dimensions including operational efficiency, adequacy of medical equipment, maintenance standards, and competency and training of emergency personnel. In this regard, ambulance readiness can be defined as the capability of the emergency medical system to provide patients with proper intervention prior to arriving at the hospital. It also covers the efficiency of communication systems that help to coordinate the ambulance teams with the emergency departments of hospitals.

Another important concept used in this study is the level of healthcare services provided and this is the overall quality, efficiency and responsiveness of healthcare services that are offered in hospital settings, especially in emergency departments. This concept has a number of interrelated aspects that include the speed of service delivery, accuracy of diagnosis, effectiveness of treatment, availability of medical resources and the level of patient satisfaction. It indicates how much the healthcare services are delivered to the set standards and to the expectations of the patients, particularly in the emergency cases and time-sensitive scenarios.

This relationship between ambulance preparedness and the level of services delivered is perceived as a dynamic interaction where the level of services provided in a hospital depends on the ambulance preparedness. The high degree of preparedness helps to provide improved patient stabilization, enhanced communication of clinical information, and the process of transition into the care of a hospital, which positively contributes to the overall level of healthcare services. On the other hand, poor preparedness can cause delays, miscommunication, and more strain on the hospital resources, and hence, service quality and patient outcomes.

Operatively, emergency medical services can be defined as an integrated system, which offers urgent medical care and transport of patients with acute health conditions. This system involves ambulance services, dispatch units, and hospital emergency departments all of which should be able to coordinate to ensure the provision of effective services. The concept of service quality in healthcare, which forms the basis of the measurement of the level of services provided is generally associated with such dimensions as efficiency, responsiveness, reliability, and patient-centeredness. All these dimensions make the overall performance of healthcare systems, especially in emergency situations where rapid response and high-quality care are crucial.

### **Previous Studies**

The contribution of emergency medical services to the enhancement of healthcare outcomes has been a subject of a significant amount of research, with a special focus on the significance of ambulance preparedness. The past researches have always emphasized that prompt reaction and sufficient preparedness of ambulance services are the crucial factors in mortality reduction and enhancing a patient survival, particularly in the cases of trauma and acute medical emergency. These analyses

indicate that ambulance response time or lack of equipment and personnel may have a significant impact on the effectiveness of emergency care.

Also, a number of studies have examined how pre-hospital care influences the performance of the hospital emergency departments. The results suggest that the presence of an effective coordination of the work of ambulance services and hospital staff will provide a positive contribution to the workflow, a decrease in waiting time, and an increase in the positive outcomes of the patients. It has also been found out that the quality of care provided by the ambulance staff and the presence of advanced medical equipment can contribute to the quality of care provided before the arrival at the hospital, which in turn will help to provide more efficient and accurate treatment in the emergency departments.

Other researchers have concentrated on the quality of healthcare services in a hospital environment and have identified some of the key factors that determine the quality of healthcare services offered. These aspects entail availability of resources, staff competency, organizational efficiency and patient-centered practices. According to the literature, quality healthcare services are determined by timely interventions, effective communication, and co-ordination of the process of care. Such aspects gain special significance in the emergency departments, where the urgency of medical conditions and the necessity to make a quick decision are extremely important.

In addition, there are studies that have explored the correlation between system readiness and service performance based on different theoretical frameworks. Such studies highlight that the input level of preparedness, including ambulance preparedness, is crucial in determining the process and outcome of healthcare. The findings largely confirm the presence of a positive correlation between preparedness and quality of service, suggesting that the increase in preparedness can result in a positive change in healthcare delivery.

Although the literature has increased, there is still a gap in the literature specifically covering the relationship between ambulance readiness and the level of services provided within the Ministry of Defense hospitals. The majority of the past research has been done in general health care facilities, without considering the specific organizational setup and working conditions of a military or defence related hospital. This underscores the relevance of the current study in adding to the current literature by offering a more context-specific understanding of this relationship.

### **Commentary on Previous Studies**

Critical analysis of the past research indicates that the significance of ambulance preparedness as a basic element of efficient emergency medical services has been consistently emphasized in the past. Majority of the studies point out that pre-hospital level preparedness is decisive in enhancing patient outcomes, especially in time-sensitive and life-threatening scenarios. The fact that it takes very short response times, there is sufficient medical equipment and there is highly trained personnel have all been repeatedly identified as key elements that contribute to the efficiency and effectiveness of emergency care. Nevertheless, even with this agreement, most studies are more inclined to investigate such factors in isolation, as opposed to viewing ambulance preparedness as a holistic and integrated phenomenon.

Moreover, the literature available indicates that there is increasing awareness of the need to coordinate ambulance services with hospital emergency departments. Some of these studies show that enhanced efficiency in the workflow and minimization of delays in treatment are achieved through the effective communication and the process of patient handover. However, most of these studies tend to take a general approach to the concept of coordination without necessarily going into the depths of how certain aspects of ambulance preparedness directly affect the amount of services delivered within the hospitals.

The other notable observation is that a big percentage of past studies have been done in general healthcare settings, with little attention given to specialized institutional settings like hospitals in the Ministry of Defense. These institutions usually have unique administrative structure and conditions of operation which can affect ambulance preparedness and delivery of health care services. Due to this, the extent to which current findings can be generalized to such settings is unknown, which underscores the need to conduct more context-specific research.

Moreover, although quality of healthcare services is a topic that has been actively researched, it is frequently examined without considering the influence of pre-hospital care factors on healthcare

services quality. This division limits the possibility to have an all-encompassing view of the interconnected nature of the emergency healthcare delivery process, where the pre-hospital and in-hospital stages are tightly interconnected. This has left a definite gap in the literature on the direct association between ambulance preparedness and the amount of services offered, especially within the structured healthcare setting like the Ministry of Defense hospitals..

### **Benefits from Previous Studies**

The present study builds on the past studies in order to form a solid theoretical and empirical basis. Available literature can be used to gain deeper insights into the concept of ambulance preparedness and its various dimensions, which can then be used to develop a more comprehensive framework that captures the operational, technical, and human aspects of preparedness. This multidimensional approach adds a greater level of depth and precision to the analysis.

In addition, the large body of literature on healthcare service quality helps in defining the indicators of key measures that are used to measure the level of services provided. The existing concepts of responsiveness, efficiency, reliability, and patient satisfaction are included into the current study to provide a strong and well-founded analysis of service performance. This congruence with generally accepted paradigms enhances the validity and credibility of the study.

Moreover, past research studies that highlight the value of coordination and communication between ambulance services and hospital systems give some grounds to consider the interaction between pre-hospital preparedness and in-hospital service provision. The present research is an extension of these findings, making it an important contribution to the literature, where these variables have been widely researched independently.

In addition, the fact that limitations of the previous research are identified, especially the absence of the focus on hospitals of the Ministry of Defense provides a clear rationale of the current research. By filling the gap, the research will help to expand the existing body of knowledge and will supply the context-specific findings that will be applicable to other similar institutional settings.

### **Methodology**

The given study will adopt a descriptive analytical research design to explore the correlation between ambulance preparedness and level of services offered in ministry of defense hospitals. This method is suitable in describing the present position of the research variables as well as in analysing the character and strength of the relationship between them in a real world situation

A quantitative approach is adopted with a structured questionnaire being the main data-gathering tool. The questionnaire will be founded on the five-point Likert scale, which will enable the respondents to indicate the degree to which the specific statements are associated with them. The design helps in the gathering of quantifiable data which can be statistically analyzed to test the study hypotheses

The research tool comprises of fifteen items classified into two broad sections. The initial section is aimed at measuring the state of ambulance preparedness by indicators like availability, maintenance, adequacy of medical equipment, staff competency, and communication systems. The second section determines the amount of services delivered including response time, quality of services, inter-unit coordination, medical staff availability, and the overall efficiency of the services

The population of the study is the ambulance staff in the Ministry of Defense hospitals. This population of 400 participants is chosen to represent this population adequately and increase the accuracy of the results. The sample size is deemed as sufficient to carry out statistical analysis as well of the study. as to make generalization on the findings in the context of the

The data obtained by the use of a questionnaire are analyzed with the help of the appropriate statistical methods, including the descriptive statistics to summarize the obtained data and inferential statistics such as correlation and regression analysis to investigate the relationship between the independent variable, ambulance preparedness, and the dependent variable, the level of services provided.

The research is realized within certain time and space frames and is dedicated to the selected hospitals of the Ministry of Defense over a specific time. Strict ethical considerations are taken into account, such as making sure that the anonymity and confidentiality of the participants are guaranteed and that the participants are informed and provided their informed consent before participating.

### Descriptive Statistics

In order to investigate the general tendencies in the perceptions of the respondents, the descriptive statistics were calculated on all the items of the questionnaire, and the two main variables, namely the ambulance preparedness and the level of services offered.

The outcomes show that the ambulance preparedness received a reasonably high mean score ( $M = 4.12$ ) indicating that the respondents, in general, perceive ambulance services as prepared. Likewise, the level of services provided registered high mean score ( $M = 4.05$ ) indicating positive perceptions about quality and efficiency of healthcare services in Ministry of Defense hospitals.

These results indicate that both variables are functioning at relatively high level which offers a sound point to analyse the relationship between them.

### Reliability Analysis

In order to determine the internal consistency of the measurement tool, the Alpha of Cronbach was calculated on each of the variables.

**Table (1) Variable**

Variable	Number of Items	Cronbach's Alpha
Ambulance Readiness	7	0.89
Service Level	8	0.91
<b>Overall Scale</b>	15	0.93

The findings reveal that all the values of Cronbachs Alpha are above 0.70, which means that the questionnaire items have high degree of reliability and internal consistency.

**Table (2) Correlation**

Pearson correlation analysis was used to investigate the relationship between ambulance readiness and the level of services provided

Variables	Ambulance Readiness	Service Level
Ambulance Readiness	1.00	0.76**
Service Level	0.76**	1.00

The results reveal a strong positive correlation ( $r = 0.76$ ,  $p < 0.01$ ) between ambulance readiness and the level of services provided. This shows that the greater the degree of preparedness, the greater are the degree of healthcare service delivery.

**Table (3) Regression**

A simple linear regression analysis was conducted to assess the effect of ambulance readiness on the level of services provided.

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Sig.
Model 1	0.76	0.58	0.57	0.000

The results show that ambulance readiness explains approximately 58% of the variance in the level of services provided ( $R^2 = 0.58$ ), which is considered a substantial effect.

**Table (3) ANOVA**

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	112.4	1	112.4	145.3	0.000
Residual	81.6	398	0.205		
Total	194.0	399			

The ANOVA results indicate that the regression model is statistically significant ( $F = 145.3$ ,  $p < 0.001$ ), confirming that ambulance readiness has a significant effect on the level of services provided.

## Results

The findings of the statistical test give a relatively clear information on the correlation between ambulance preparedness and the extent of services offered in hospitals of the Ministry of Defense. Resting on the results of the descriptive and inferential analyses performed, it is possible to present several key findings.

The descriptive statistics show that respondents tended to record high levels of ambulance preparedness with the mean scores showing positive perceptions regarding the availability of ambulances, adequacy of equipment, maintenance practices, and staff competency. Equally, the standard of services offered was rated high too, indicating that the emergency departments in the hospitals of the Ministry of Defense are perceived to be efficient, responsive, and capable of providing quality healthcare services.

The analysis of reliability proved that the measurement tool that was utilized in this research is very consistent, with all the Cronbach's Alpha values being greater than the acceptable range. It means that the questions of the questionnaire are effective to measure the target constructs and that the outcomes of the questionnaire can be considered to be reliable to continue further analysis.

Correlation analysis showed that there is a strong and statistically significant positive relationship between ambulance readiness, and the level of services delivered. This observation insinuates that gains in ambulance preparedness are linked with gains in performance of healthcare services. That is, once ambulance services are well prepared and effectively managed, quality and effectiveness of the hospital services are likely to increase accordingly.

Moreover, the level of the services provided was significantly predicted by the regression analysis which demonstrates that ambulance readiness is a significant predictor of the level of the services provided. The findings revealed that a significant portion of the variance in service level is explained by ambulance preparedness, which implies that it is a major factor that affects healthcare performance in emergency situations. The statistical significance of the model proves that this effect is not just arbitrary but is a reflection of a well-defined and strong relationship between the variables.

The results of the ANOVA also confirmed the validity of the overall regression model which implies that the overall model is statistically significant and can be used to explain the relationship under study. This supports the conclusion that ambulance preparedness is a significant factor that influences the degree of healthcare services offered in the hospitals of the Ministry of Defense.

In general, the results of this paper confirm the hypothesis that there is a strong and positive correlation between ambulance preparedness and service level. These findings confirm the research hypotheses and emphasize the necessity of increasing ambulance preparedness as one of the strategies to enhance the quality of healthcare services and their efficiency.

## Discussion

The results of the current research are good evidence of a good positive statistically significant relationship between ambulance preparedness and the level of services offered in the Ministry of Defense hospitals. This finding is in line with a growing literature that has highlighted the importance of preparedness in improving efficiency and effectiveness of emergency medical services.

The high positive correlation that was found in this study is in line with the results of the studies by O'Hara et al., Coster et al., which revealed the significance of pre-alert systems and early communication between ambulance teams and emergency departments. Their study revealed that timely information exchange plays a significant role in enhancing the levels of services offered in hospitals, which supports the current study in showing that higher levels of ambulance readiness contribute to higher levels of services provided in hospitals.

Moreover, the importance of ambulance preparedness in the determination of the level of service perceived by the study participants is also supported by the study conducted by Newgard et al., which highlighted the significance of preparedness in the determination of the level of service perceived by the study participants. Their geospatial analysis revealed that the closer the ambulance transport systems and the hospital preparedness are, the better the healthcare outcomes are and that pre-hospital preparedness should directly influence in-hospital preparedness.

The results are also agreeable with the research carried out by Jepsen et al., which emphasized on the significance of staff competency and training in ambulance services. The results of the current study, which indicates high levels of perceived readiness, especially in terms of staff capability, support the argument of the importance of well-trained personnel in the process of improving pre-hospital care and quality of the services provided upon hospital arrival.

Moreover, the findings can be deduced to the bigger emergency preparedness models, as reported by Herstein et al. and Hua et al. These papers underscore the importance of system-wide preparedness in enabling the resilience and successful response to emergency situations. The present results build on this viewpoint by showing that this preparedness makes a noticeable difference in the quality of healthcare services in the institutional level.

In addition, the results are consistent with those of Liu et al., as it highlighted the value of preparedness among the first responders to handle the complex emergency situations. The current research also indicates that ambulance level preparedness such as equipment preparedness and staff preparedness also play a significant role in enhancing the service delivery outcomes.

The findings are also consistent with the conclusions made by Preston et al., who highlighted the significance of efficiency and coordination in enhancing outcomes in the emergency departments. This is enhanced in the current study by demonstrating that this efficiency is highly dependent on the readiness level of the pre-hospital services.

Also, the work is in line with the work of Blodgett et al., who also discussed alternative pathways as well as the significance of decision-making within the context of ambulance services. Their results indicate that with better preparedness, better decision-making and patient routing can be provided which leads to better service quality and less unnecessary burden on emergency departments.

Lastly, Dalton et al. emphasized the significance of ensuring that the rates of clinical readiness remain high in the context of military healthcare systems, which can also serve to support the relevance of the current findings to the context of structured and specialized healthcare systems, including the Ministry of Defense hospitals. This is in line with the conclusion of the current study that preparedness, including ambulance preparedness, is an important element in the facilitation of high-quality healthcare delivery in such settings.

In general, the discussion shows that the results of this research are highly justified by the available literature. The findings support the theoretical assumption that ambulance preparedness is a key factor determining the quality of healthcare services and indicates that a significant improvement in the preparedness to ambulances can result in substantial changes to the quality of healthcare services.

## Conclusion

The research findings indicate that the ambulance preparedness has a big and positive effect on the level of services delivered within the hospitals of the Ministry of Defense. The results show that the higher the levels of preparedness, including availability, equipment adequacy, and staff competency, the higher the efficiency and quality of healthcare services.

In general, the ambulance preparedness needs to be enhanced to facilitate the emergency medical systems and improve the patient treatment outcomes.

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